United States
Environmental Protection
Agency

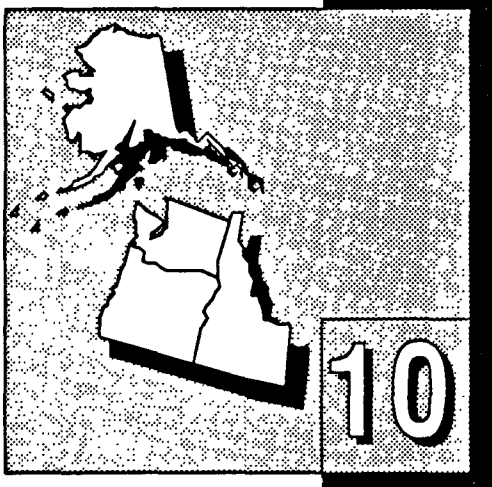
Office of Solid Waste
and Emergency Response
(OS-230)

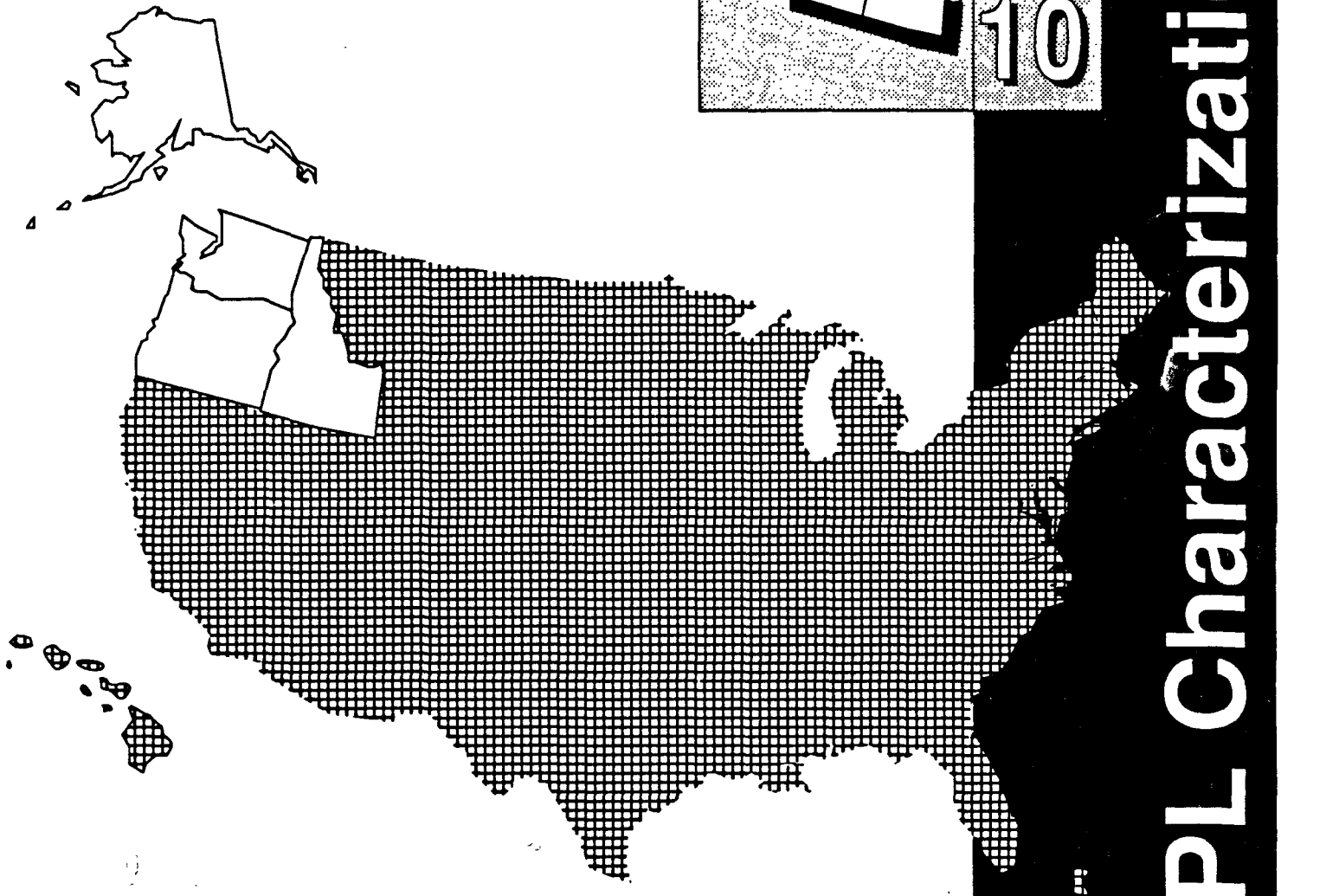
EPA/540/8-91/079
November 1991

EPA SUPERFUND

NPL Characterization Project

Region 10 Results





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NPL Characterization Project:	National Results	PB92-963304
NPL Characterization Project:	Region 1 Results	PB92-963305
NPL Characterization Project:	Region 2 Results	PB92-963306
NPL Characterization Project:	Region 3 Results	PB92-963307
NPL Characterization Project:	Region 4 Results	PB92-963308
NPL Characterization Project:	Region 5 Results	PB92-963309
NPL Characterization Project:	Region 6 Results	PB92-963310
NPL Characterization Project:	Region 7 Results	PB92-963311
NPL Characterization Project:	Region 8 Results	PB92-963312
NPL Characterization Project:	Region 9 Results	PB92-963313
NPL Characterization Project:	Region 10 Results	PB92-963314
CERCLIS Characterization Project:	National Results	PB92-963315
CERCLIS Characterization Project:	Region 1 Results	PB92-963316
CERCLIS Characterization Project:	Region 2 Results	PB92-963317
CERCLIS Characterization Project:	Region 3 Results	PB92-963318
CERCLIS Characterization Project:	Region 4 Results	PB92-963319
CERCLIS Characterization Project:	Region 5 Results	PB92-963320
CERCLIS Characterization Project:	Region 6 Results	PB92-963321
CERCLIS Characterization Project:	Region 7 Results	PB92-963322
CERCLIS Characterization Project:	Region 8 Results	PB92-963323
CERCLIS Characterization Project:	Region 9 Results	PB92-963324
CERCLIS Characterization Project:	Region 10 Results	PB92-963325

Publication 9345.1-09-10
EPA/540/8-91/079
November 1991

SUPERFUND

NPL CHARACTERIZATION PROJECT:

REGION 10 RESULTS

Office of Emergency and Remedial Response
U.S. Environmental Protection Agency
Washington, D.C. 20460

ACKNOWLEDGEMENTS

The design and management of these studies was carried out by Penelope Hansen and Caroline Previ of the Site Assessment Branch in the Hazardous Site Evaluation Division, Office of Emergency and Remedial Response. Final publication of the documents was under the direction of Suzanne Wells and Mary Latka. EPA also greatly appreciates the efforts of the numerous people who collected, collated, and analyzed the data and helped finalize the documents for publication. In particular, EPA would like to recognize Nermin Ahmad, Al Canepa, Catherine Brock, Arthur Johnson, Jennifer Nauen, Amy Newell, Nikki Koch, James Skiridulis, and Joe Vescio, who were instrumental in helping to design the study, coordinate data collection, and analyze the information. We are also grateful for the many hours of work put in by our regional contacts in their efforts to collect the actual data: Marcia Brooks, Diana Coker, Deb Duffy, Joan Dupont, Debbie Flood, Angie Garcia, Bill Glasser, Pressley Hatcher, Joyce Harney, Sharon Hayes, Kerry Herndon, Brian Holloway, Paul LaCourreye, Steve Maybury, Bill Messenger, Carl Rodzewick, Bill Schaeffer, Dave Schaller, Betsy Shaver, John Toten, Steve Vaughn, and Murray Warner. Finally, we would like to recognize Baxter Jones, Nancy O'Connor, and Brian Steglitz, who helped prepare the documents for publication.

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LIST OF ACRONYMS AND ABBREVIATIONS

ATSDR	Agency for Toxic Substances and Disease Registry
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	CERCLA Information System
DOD	Department of Defense
DOE (USDOE)	Department of Energy
DOI (USDOI)	Department of the Interior
DOT (USDOT)	Department of Transportation
DW	Drinking Water
EPA	Environmental Protection Agency
ERRIS	Emergency and Remedial Response Information System
FR	Federal Register
FS	Feasibility Study
GW	Ground Water
HRS	Hazard Ranking System
NFRAP	No Further Remedial Action Planned
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
PA	Preliminary Assessment
PCB	Polychlorinated Biphenyl
PCP	Pentachlorophenol
POTW	Publicly Owned Treatment Works
QA/QC	Quality Assurance/Quality Control
RA	Remedial Action
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RI	Remedial Investigation
ROD	Record of Decision
SARA	Superfund Amendments and Reauthorization Act
SBA (USSBA)	Small Business Administration
SI	Site Inspection
SW	Surface Water

CHAPTER 1: PROJECT SUMMARY

Congress passed the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in 1980 to address the environmental threats posed by the nation's uncontrolled waste sites. CERCLA directed the U.S. Environmental Protection Agency (EPA) to identify the sites that pose the greatest relative danger to human health or the environment. In response, EPA developed a site assessment process to evaluate and screen sites within the Superfund program. The main components of the site assessment process (see figure on next page) are:

CERCLIS. The CERCLA Information System (CERCLIS) is EPA's data base to record and track activities at all sites discovered. EPA learns of sites in many ways, including federal programs, state and local programs, and citizen notifications.

Preliminary Assessment. EPA or the state conducts a preliminary assessment (PA) at every site entered into CERCLIS. The PA — a relatively low cost review of available information — determines if the site warrants further CERCLA action. After the PA, EPA decides either to send the site forward in the assessment process or to classify the site as NFRAP (no further remedial action planned under CERCLA).

Site Inspection. The site inspection (SI) involves more detailed data collection, including environmental sampling. Based on the SI, EPA either recommends scoring the site with the Hazard Ranking System (HRS) or classifies the site as NFRAP.

Hazard Ranking System. The HRS uses information gathered during the PA and SI to screen and identify sites consistently for the National Priorities List (NPL). The HRS results in a numerical score that is used to set priorities for more detailed site investigation. In general, sites scoring 28.50 and above are added to the NPL, and sites scoring below 28.50 are classified as NFRAP.

National Priorities List. The NPL identifies sites that warrant more detailed evaluation and possible remedial response. Adding sites to the NPL is a rulemaking process — sites are proposed for the NPL in the Federal Register, the proposal is subject to public comment, and those sites with HRS scores that remain above 28.50 after public comment become final NPL sites.

This report is one in a series providing information on the nature of the sites being evaluated by the Superfund site assessment program. It is intended to provide a "snapshot" of sites in Region 10 on the NPL as of February 1991. Separate reports are available for the other nine EPA Regions and for the nation as a whole. Other reports in this series cover the CERCLIS characterization project, which provides representative information on the types of sites in the CERCLIS inventory. National and Regional CERCLIS characterization reports also are available.

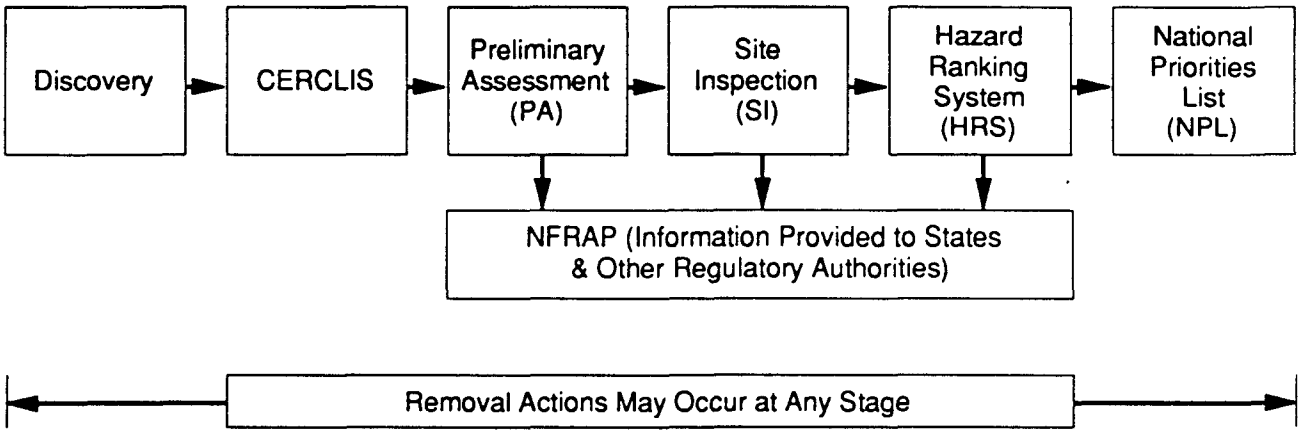
1.1 PROJECT OBJECTIVES

In 1989, EPA undertook a project to characterize sites on the NPL. The project's main objectives were to:

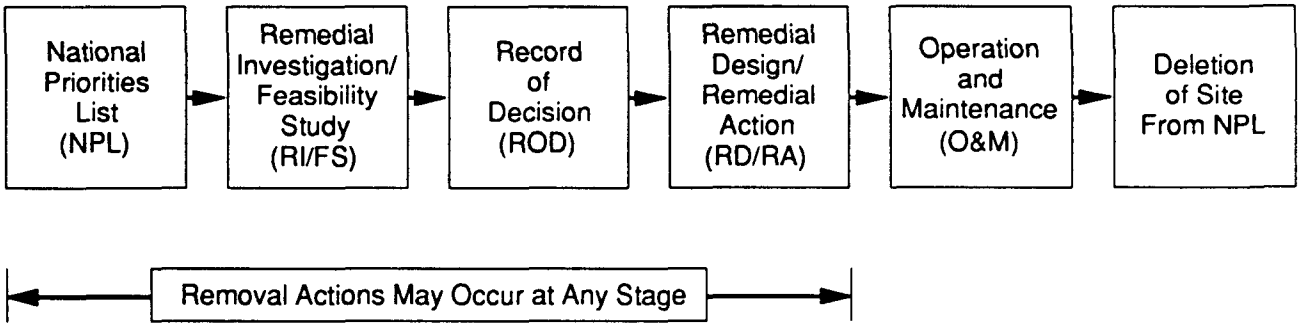
- increase understanding of the characteristics of NPL sites;
- develop a centralized repository for NPL site information; and
- summarize the types of sites the Superfund program is addressing.

SUPERFUND PROCESS

Site Assessment Phase



Remedial Phase



Because the characterization is based on information collected during the screening stages of the Superfund process, it does not represent a comprehensive characterization of NPL sites. The site assessment program is a screening program — hundreds of sites pass through the PA and SI stages annually. EPA's understanding of sites may change after more detailed investigations are conducted during the remedial stage of the Superfund process. The figure on the previous page illustrates the position of the site assessment stage in the context of the overall Superfund process. This report provides a summary of the characteristics of NPL sites in Region 10 as they are understood at the time of listing.

1.2 GENERAL METHODOLOGY

The NPL characterization project evaluated 1218 sites — the 1189 sites on the NPL as of February 1991 plus 29 sites that have been deleted from the NPL because all appropriate response actions have been taken. (Four sites deleted early in NPL history were not included.) The 79 sites that were proposed for the NPL but subsequently dropped from further consideration were not included. The proposed sites were dropped because of policy issues or because their HRS scores fell below 28.50 (the cutoff point for listing) after public comment.

The table below indicates the number of sites in each EPA Region that were reviewed. Of the 69 sites located in Region 10, one had been deleted as of February 1991.

EPA published the original HRS on July 16, 1982 (47 FR 31180). The Superfund Amendments and Reauthorization Act of 1986 (SARA) required EPA to revise the HRS to assess more accurately the relative risk posed by waste sites. The revised HRS was published on December 14, 1990 (55 FR 51532). The NPL characterization project evaluated the complete set of sites that were listed based on the original HRS (with the exception of four deleted sites as noted above). Sites listed on the basis of the revised HRS were not evaluated.

Data for the NPL characterization project were collected in two stages. First, the final HRS package for each site (filed at the EPA Headquarters Superfund Docket) was reviewed. Then, any data gaps were filled by reviewing the Regional site files.

1.3 RESULTS

The results of this report are presented in chart form in Chapters 3 through 9. These charts include information about: site description, owner/generator, regulatory and response history, HRS scoring, waste description, site environment, and water use. The box at the bottom of the next page provides information to assist the reader in interpreting the charts.

Listed below are notable findings of the NPL characterization project for Region 10.

- Slightly less than a third of NPL sites in Region 10 are located in rural areas; a third are located in urban areas (Chart 1).
- Over half of Region 10 NPL sites manage(d) wastes in industrial landfills;

NUMBER OF SITES REVIEWED FOR NPL CHARACTERIZATION PROJECT

Region	1	2	3	4	5	6	7	8	9	10	Total
Number of Sites	84	204	160	158	265	71	59	43	105	69	1218

just under half manage(d) wastes in surface impoundments (Chart 4).

- About 40% of Region 10 NPL sites are owned by private industry; over 30% are owned by the federal government (Chart 7).

- Over 70% of NPL sites in Region 10 are active facilities (Chart 9).

- Over 40% of NPL sites in Region 10 contain wastes generated by manufacturing industries (Chart 10).

- About 45% of Region 10 NPL sites were identified through state and local programs (Chart 17).

- Two-thirds of NPL sites in Region 10 have released hazardous substances to ground water; more than a third have released hazardous substances to surface water (Chart 23).

- A third of Region 10 NPL sites have a sensitive environment within 3 miles (Chart 33).

- Over 90% of Region 10 NPL sites have operable wells within 1 mile (Chart 39).

1.4 ORGANIZATION OF DOCUMENT

This document consists of nine chapters and three appendices. Chapter 2 provides more detailed information on data collection activities and includes the data collection form and instructions. Chapters 3 through 9 present the results in chart form. Appendix A lists all of the individual responses for the "other" response category, which are not displayed separately on the charts in Chapters 3 through 9. Appendix B lists the sites reviewed, and Appendix C contains a map that shows the locations of these sites.

INFORMATION ABOUT THE CHARTS

- Data were generated from a review of NPL site files in 1989. Except where noted, charts depict information for all 69 sites reviewed in Region 10 — 68 that were on the NPL as of February 1991, and one that had been deleted because all appropriate response actions have been taken.

- Efforts were made to characterize site conditions/surroundings as they existed at the time of the HRS score. The HRS scoring package and associated references served as the primary information source.

- Percentages on some charts do not total exactly 100 percent due to rounding.

- Percentages on some bar charts total to greater than 100 percent because multiple responses to certain questions were possible.

CHAPTER 2: DATA COLLECTION METHODS

Before the NPL characterization project, information on Region 10 NPL sites was available in individual site files at EPA Headquarters and the Regional office. The project compiled and centralized site-specific information on the characteristics of these NPL sites. This chapter describes the data collection activities. The table on the next page summarizes the process used to collect data.

2.1 DATA COLLECTION PROCEDURES

After developing the overall approach to the NPL characterization project, EPA prepared a data collection form (see Section 2.4). The design of the form was based in part on the form used for the CERCLIS characterization project, an earlier companion project. A few new questions were added and some existing questions were modified to capture information more pertinent to a study of NPL sites. An instruction manual (see Section 2.5) was developed to promote consistency and accuracy in data collection. *The data collection form and instruction manual should be consulted for a full explanation of the definitions used in the report.* Data collection procedures were tested on Region 10 sites. As a result, a few modifications were made to the data collection form. The modified form, as shown in Section 2.4, was used in the other nine Regions.

2.2 SOURCE OF DATA

Most of the questions on the data collection form could be answered in the first stage of the data collection process by reviewing HRS scoring packages at the Headquarters Superfund Docket. The second stage involved filling in data gaps at the Region 10 office. Information reviewed included HRS scoring package reference documents such as SI reports, PA reports, maps, and records of telephone contacts. After data for all Regions were collected and verified, the project team compiled one national data base. The data base was then analyzed to calculate response frequencies for each of the data fields.

2.3 QUALITY ASSURANCE/ QUALITY CONTROL

The first level of quality assurance/quality control (QA/QC), conducted at the Regional office, involved comparing the information collected at EPA Headquarters with the information available in the Region and, where necessary, resolving differences. After information on the data collection forms was entered into the data base, the data base was reviewed to ensure that the information had been properly transferred. A second level QA/QC involved reviewing the data base for completeness, consistency, and accuracy. In addition, the graphics produced for this and all other reports were checked for consistency with the data base.

PROCESS USED TO COLLECT DATA

TASK	DESCRIPTION
Headquarters Docket Review	Review HRS scoring packages for every NPL site. Complete as much of data collection form as possible.
Regional Visit: File Review	Fill in data gaps by reviewing all site assessment materials in Regional NPL files, particularly references in HRS scoring packages.
Regional Visit: First Level QA/QC	Compare information collected at Headquarters Docket to Regional information.
Data Entry/ Verification	Enter information on data collection forms into data base. Verify that information on forms has been properly transferred to data base.
Second Level QA/QC	Review information in the Regional data bases for completeness, consistency, and accuracy.
Statistical Analysis	Compile Regional data bases into one data base. Perform statistical analysis of data to calculate response frequencies displayed in charts.

2.4 DATA COLLECTION FORM

NPL Statistics Data Collection Form

General Instructions: *An entry must be made for every item on this form. Fill in blanks and/or check the appropriate box(es) as indicated.*

RECORD INFORMATION

1) **Site Record Number:** (fill in) _____ 2) **Site Name:** (fill in) _____

SITE DESCRIPTION

1) **Coordinates** (fill in or check unknown)

___ ° ___ ' ___ . ___ " ___ ___ ° ___ ___ ' ___ . ___ "
N. Latitude W. Longitude ☐ Unknown

2) **Setting** (check one)
☐ Urban ☐ Rural
☐ Suburban ☐ Unknown

3) **Location Land Use/Site Use** (check all applicable local/adjacent uses)
☐ Industrial Area
☐ Commercial District
☐ Residential
☐ Agricultural
☐ Forest/Fields
☐ Military
☐ Department of Energy
☐ Mining
☐ Unknown
☐ Other (fill in) _____

4) **Current Ownership** (check one)
☐ Private - Industrial
☐ Private - Individual
☐ Private - Small Business
☐ Federal
☐ State
☐ County
☐ Municipal
☐ Indian Lands
☐ Unknown
☐ Other (fill in) _____

5) **Ownership When Contaminated** (check one)
☐ Private - Industrial
☐ Private - Individual
☐ Private - Small Business
☐ Federal
☐ State
☐ County
☐ Municipal
☐ Indian Lands
☐ Unknown
☐ Other (fill in) _____

6) **Area of Site** (fill in and check units or check unknown)
_____
☐ Acres ☐ Square feet ☐ Unknown

7) **Site Status** (check one)
☐ Active
☐ Inactive
☐ Unknown

8) **Years of Operation** (fill in or check unknown)
from _____ (yr) to _____ (yr)
☐ Unknown

9) **Industry Responsible for Generating and/or Depositing Waste Material** (check all that apply)
☐ Manufacturing (if checked, must check one of sub-items)
- ☐ Food and Kindred Products
- ☐ Agriculture
- ☐ Textile Mill Products
- ☐ Lumber and Wood Products
- ☐ Paper and Allied Products
- ☐ Construction
- ☐ Chemicals and Allied Products
- ☐ Petroleum Refining and Related Industries
- ☐ Rubber and Plastic Products
- ☐ Primary Metals Industries
- ☐ Fabricated Metal Products
- ☐ Electroplating
- ☐ Electronic and Electrical Equipment
- ☐ Electric Power Production and Distribution
- ☐ Other Manufacturing

☐ Mining (if checked, must check one of sub-items)
- ☐ Metals
- ☐ Coal
- ☐ Oil and Gas
- ☐ Non-metallic Minerals

☐ Retail Sales
☐ Municipal Landfill
☐ Military
☐ Department of Energy
☐ Recyclers
☐ Unknown
☐ Other (fill in) _____

10) **Site Activities/Waste Deposition** (check all that apply)
☐ Surface Impoundment (primarily liquid)
☐ Waste Piles (primarily solid)
☐ Municipal Landfill
☐ Industrial Landfill
☐ Industrial Monofill
☐ Industrial Dump (illegal)
☐ Open Dump - Drums
☐ Open Dump - Trash, White Goods, etc.
☐ Illegal Dumping ("out the back door")
☐ Episodic Open Dump ("midnight dumping")
☐ Tanks - Above Ground
☐ Tanks - Below Ground
☐ Land Treatment Facility
☐ Other Sludge Activities
☐ Discharge to Sewer
☐ Recycling Facility
☐ Underground Injection Well (Class if known _____)
☐ Airborne Release/Incineration
☐ Drum/Container Storage
☐ Spill
☐ Field Pesticide Applications
☐ Unknown _____
☐ Other (fill in) _____

11) **How Initially Identified** (check one)
☐ Citizen Complaint ☐ State/Local Program
☐ RCRA Notification ☐ Incidental
☐ CERCLA Notification ☐ Unknown
☐ Other Federal Program
☐ Other (fill in) _____

Continued on Next Page

NPL Statistics Data Collection Form

SITE DESCRIPTION (CONTINUED)

12) Material Deposited By (check one)
- ☐ Present Owner
- ☐ Present and Former Owner
- ☐ Former Owner
- ☐ Third Party
- ☐ Unknown
- ☐ Other (fill in) _____

13) Date Discovered
(fill in or check unknown)
__ __ / __ __ / __ __ (mm/dd/yy)
- ☐ Unknown

14) Material Source (check one)
- ☐ Onsite Generator
- ☐ Offsite Generator
- ☐ Onsite and Offsite Generator
- ☐ Unknown

15) Waste Easily Accessible
(check one)
- ☐ Yes
- ☐ No
- ☐ Unknown

16) First Proposed (check one)
- ☐ Original List
- ☐ Update 1
- ☐ Update 2
- ☐ Update 3
- ☐ Update 4
- ☐ Update 5
- ☐ Update 6
- ☐ Update 7
- ☐ Update 8
- ☐ Update 9
- ☐ Update 10

17) NPL Status
- ☐ Final
- ☐ Proposed
- ☐ Cleaned-up

18) CERCLIS Number (fill in)
_____

19) HRS Score (fill in)
_____

20) Miscellaneous Descriptive Information (check all that apply)
- ☐ Consists of Multiple Units
- ☐ Units Owned by Multiple Entities
- ☐ Emergency Removal Has Occurred
- ☐ Other Emergency Action Has Occurred
- ☐ None
- ☐ Lead

WASTE DESCRIPTION

1) Solids - Waste Type: (check all that apply)
- ☐ None
- ☐ Unknown
- ☐ Asbestos
- ☐ Creosote
- ☐ Dioxins, PCP
- ☐ Explosives
- ☐ Fly and Bottom Ash
- ☐ Inorganic Chemicals
- ☐ Laboratory/Hospital Wastes
- ☐ Metals
- ☐ Mining Wastes
- ☐ Municipal
- ☐ Organic Chemicals
- ☐ Paints/Pigments
- ☐ PCBs
- ☐ Pesticides/Herbicides
- ☐ Radioactive Waste
- ☐ Smelting Wastes
- ☐ Other (fill in) _____

Quantity/Units: (fill in one value for all solid wastes and check units or check unknown)
- ☐ Unknown
- _____
- ☐ Tons
- ☐ Pounds
- ☐ Cubic Yards
- ☐ Cubic Feet

2) Liquids - Waste Type: (check all that apply)
- ☐ None
- ☐ Unknown
- ☐ Acids/Bases
- ☐ Inorganic Chemicals
- ☐ Laboratory/Hospital Wastes
- ☐ Metals
- ☐ Municipal
- ☐ Oily Wastes
- ☐ Organic Chemicals
- ☐ Paints/Pigments
- ☐ PCBs
- ☐ Pesticides/Herbicides
- ☐ Radioactive
- ☐ Solvents
- ☐ Other (fill in): _____

Quantity/Units: (fill in one value for all liquid wastes and check units or check unknown)
- ☐ Unknown
- _____
- ☐ Gallons
- ☐ Drums

3) Sludges - Waste Type: (check all that apply)
- ☐ None
- ☐ Unknown
- ☐ Inorganic Sludge
- ☐ Metal Sludge
- ☐ Municipal
- ☐ Oily Wastes
- ☐ Organic Sludge
- ☐ Paint
- ☐ POTW Sludge
- ☐ Radioactive
- ☐ Other (fill in) _____

Quantity/Units: (fill in one value for all sludges and check units or check unknown)
- ☐ Unknown
- _____
- ☐ Tons
- ☐ Pounds
- ☐ Cubic Yards
- ☐ Cubic Feet

Continued on Next Page

NPL Statistics Data Collection Form

ENVIRONMENTAL / DEMOGRAPHIC INFORMATION

1) Demographics

a) Distance to Nearest Population (fill in and check units or check unknown)

_____ ☐ Feet, ☐ Miles or ☐ Unknown

b) Population Within One Mile? (check yes, no or unknown. If yes, fill in number if known)

_____

☐ Yes ☐ No ☐ Unknown

c) Population Within Three Miles? (check yes, no or unknown. If yes, fill in number if known)

_____

☐ Yes ☐ No ☐ Unknown

2) Actual Environmental Damage Reported, Potential Population Affected (check yes, no, or unknown)

☐ Yes (if yes, check all applicable impacts. For those checked *having a population affected column, enter potential affected* population or print unknown)

	Potential Population Affected
☐ Surface Water Impacts (3 miles)	_____
☐ Ground Water Impacts (3 miles)	_____
☐ Drinking Water Impacts (3 miles)	_____
☐ Air Impacts (1 mile)	_____
☐ Human Health Impacts	_____
☐ Soil Impacts	
☐ Flora Impacts	
☐ Fauna Impacts	
☐ Visual Impacts	
☐ Other (fill in) _____	

☐ No

☐ Unknown

---

3) Observed Releases

Is there an observed release? (check all that apply)

☐ Ground Water ☐ Surface Water ☐ Air ☐ Direct Contact ☐ None

---

4) Water Supply Information for Three Mile Radius

a) Local Drinking Water Supply Source (check one)

☐ Surface Water
☐ Ground Water
☐ Surface and Ground Water
☐ None
☐ Unknown
☐ Other (fill in) _____

b) Total Population Served by Above System (fill in or check unknown)

_____ or ☐ Unknown

c) Drinking Water Supply System Type for Above System (check all that apply)

☐ Municipal
☐ Private
☐ Unknown
☐ Other (fill in) _____

d) Ground Water Data:

Other Local Ground Water Uses (check all that apply)

☐ Irrigation
☐ Stock Watering
☐ Industrial Process/Cooling
☐ Unknown
☐ None
☐ Other (fill in) _____
_____

Wells Within 1 Mile? (check yes, no or unknown. If yes, fill in number if known)

_____

☐ Yes ☐ No ☐ Unknown

Wells Within 3 Miles? (check yes, no or unknown. If yes, fill in number if known)

_____

☐ Yes ☐ No ☐ Unknown

Distance to Nearest Well (fill in and check units or check unknown)

_____ ☐ Feet, ☐ Miles or ☐ Unknown

Depth to Uppermost Used Aquifer (fill in or check unknown)

_____ (Feet) ☐ Unknown

e) Surface Water Data:

Other Local Surface Water Uses (check all that apply)

☐ Recreation
☐ Irrigation
☐ Stock Watering
☐ Industrial Process/Cooling
☐ Commercial Fishery
☐ Unknown
☐ None
☐ Other _____
_____

Surface Water Adjacent to/Draining Site (check all that apply)

☐ Stream ☐ Wetland
☐ River ☐ Bay
☐ Lake ☐ Ocean
☐ Pond ☐ Unknown
☐ None
☐ Other _____
_____

Distance to Nearest Downstream Intake (fill in and check units, or check unknown, not applicable, or none)

_____ ☐ Feet, ☐ Miles

☐ Unknown
☐ Not Applicable
☐ None

Continued on Next Page

NPL Statistics Data Collection Form

ENVIRONMENTAL / DEMOGRAPHIC INFORMATION (CONTINUED)

5) Ecological Information

Is Site In or Near Sensitive Environment? (check all that apply)

☐ Yes (if yes, check at least one sub-item and whether in or near that environment)

- ☐ Estuary ☐ In ☐ Near
- ☐ Critical Habitat ☐ In ☐ Near
- ☐ 100 Year Floodplain ☐ In ☐ Near
- ☐ Barrier Island/Coastal High Hazard Area ☐ In ☐ Near

☐ No

☐ Unknown

6) Pathways of Concern

- ☐ Groundwater
- ☐ Surface Water
- ☐ Air
- ☐ Direct Contact
- ☐ Fire/Explosion

REGULATORY AND RESPONSE HISTORY

1) Regulatory Activities Prior to CERCLA Involvement

(check all that apply)

- ☐ RCRA
- ☐ NPDES
- ☐ Other Federal Programs
- ☐ State/Local Regulations
- ☐ None
- ☐ Unknown
- ☐ Other _____

2) RCRA Status

- ☐ Underground Storage Tank
- ☐ Very Small Quantity Generator
- ☐ Small Quantity Generator
- ☐ 90-Day Accumulator
- ☐ Permitted Facility - Final
- ☐ Permitted Facility - Interim
- ☐ Unpermitted Facility
- ☐ Unknown
- ☐ Not Applicable

COMMENTS

(Briefly describe the nature of the facility/problem and any points of interest not adequately covered by this form.)

QA/QC (initial & date) _____

Revision 3 3 20 89

2.5 DATA COLLECTION FORM INSTRUCTIONS[1]

The NPL Statistics Data Collection Form has been designed to standardize hazardous waste site information for input into a data base. This data base will be used to perform a statistical characterization of waste sites on the NPL. All proposed and final NPL sites will be reviewed for data compilation, including former final sites deleted from the NPL because the Agency determined that no further response was necessary. The NPL Statistics Data Collection Form is designed so that all required information can be obtained by a review of the HRS package and supporting materials contained in Regional EPA NPL files.

It is important that all questions on the form be answered even if the appropriate answer is "unknown." Estimates based on best professional judgment are allowed, but hard data are preferred. In some cases, the response "other" can be used along with a brief narrative if the available choices do not adequately describe the site or situation. Additional information to support the use of this category should be included in the "Comments" section at the end of the form. RESPONDENTS ARE ENCOURAGED TO USE THE "OTHER" CATEGORY AS MUCH AS NEEDED.

The Data Collection Form contains six sections which are listed below. The name of the file reviewer should be written on the front in the top margin. The form should be completed in dark pencil so that later QA/QC corrections to the form will still result in an easily legible document for data entry purposes.

Section 1 - Record Information, which provides basic identification information;

Section 2 - Site Description, which describes the ownership, status, and history of the site;

Section 3 - Waste Description, which describes the types and quantities of wastes present at the site;

Section 4 - Environmental/Demographic Information, which provides information on water supply, population, and environmental damage;

Section 5 - Regulatory and Response History, which covers any regulatory activity that occurred prior to CERCLA involvement and includes RCRA status;

Section 6 - Comments, which provides space for a brief description of the site, including a list of contaminants and comments on data availability or associated problems with completing the form. Explanations of "other" responses should also be given here.

Section 1 - Record Information

1. **Site Number:** This is the number by which the site will be identified in the data base. It is essential that this number be entered correctly on the form. The Site Number is the seven digit, Regional ID number for that site, usually marked on the

[1] This section is a slightly edited version of the actual instruction manual that accompanied the data collection form.

HRS scoring package cover page. In the case of some proposed sites, an ID number indicating the Update Number is given and should be used. When entering the Site Number, it is required that the commonly accepted two letter abbreviation for the state's name precede the Regional ID number (or other number) for the site.

NOTE: If no identification number is available, use any reasonable means of numbering, but remember to precede the number with the state abbreviation.

2. **Site Name:** This is the name of the site as identified on the NPL. Copy the complete name of the site in the space provided. Also, enter the location of the site (town/county and state) directly below the site name.

Section 2 - Site Description

1. **Coordinates:** Enter the coordinates, latitude and longitude, of the site in degrees, minutes, seconds, and tenths of seconds. If tenths of a second are not given, enter *zero* as a default value in the appropriate space. If no coordinates are available at all, leave blank and mark "unknown," while specifying site location (eg., township and range) in the collection form's "Comments" section. Because latitude and longitude provide necessary input for interaction with other data bases, it is particularly important that these values or descriptions be included.

2. **Setting:** Setting is a qualitative measure of population density near the site. Mark the appropriate box to indicate the character of the area surrounding the site. "Urban" indicates central city areas, "suburban" indicates sites bordering or surrounding urban areas, and "rural" indicates sites outside suburban areas. Select the one setting that best describes the site. This information may be derived from an accompanying map. Generally, the number of homes and/or industrial buildings indicated on a map may be used to estimate the site setting. Since the character of the area is relative to population density, a site in the *center* of a city such as Roanoke Rapids, which is located in rural North Carolina, would be classified as "urban."

3. **Location Land Use/Site Use:** The *predominant* land uses within approximately *1 mile* of the site location should be determined and all appropriate descriptions identified. If the land *immediately adjacent* to or on site is used for activities associated with large numbers of people, or a sensitive environment which could increase the risk posed by the site, describe the appropriate land/site use in the "other" category. Examples of "others" include:

- railroad
- airport
- sports complex
- wetland
- school/college
- harbor/marina
- federal/state park

Mining, military, or DOE should be checked only if they correspond to actual site use or immediately adjacent site use. Additionally, if the site or area had a predominant historical usage (e.g., railroad yard, landfill, power substation), identify this in the "other" category with the words "past" or "previous."

4. **Current Ownership:** Check one appropriate box to indicate the type of ownership of the site at the time of the HRS score. For purposes of this data field, operators may be characterized as "owners" if ownership distinctions are not made. For consistency, treat the following situations as detailed below:

   - If ownership/operation is by multiple individuals, businesses, or industries, indicate "other" and state the condition. However, if all owners belong to the same category, it is not necessary to put this under "other;" simply check the appropriate category.

   - When the site is a contaminated ground water plume, as defined by contaminated wells, mark "other" and enter "contaminated ground water plume."

5. **Ownership When Contaminated:** Check the appropriate box to indicate the type of ownership at the time the site was contaminated. As in item #4, ownership refers to owner and/or operator if a distinction is not made. Procedures for ownership when contaminated are similar to current ownership.

6. **Area of Site:** Indicate the area of the site, along with the appropriate units. The area of the site includes the "source" of the waste *and* the area that has come to be contaminated. If the area of the site is reported as a range, use the midpoint of the range. Again, this data field is intended to capture the area of contamination. So, for example, if there is a large facility but only a small area is actually contaminated, only the area of contamination should be entered. If the specific area of contamination is unknown, use the area of the facility, if reasonable (use best professional judgment), and note this in the "Comments" section. For ground water contamination plume sites, area refers to the planar area of the plume. Generally, the area of the site will be given in the narrative that accompanies the HRS scoring package.

7. **Site Status:** Check the appropriate box to indicate the status of the site at the time of the HRS score. Sites are to be considered "active" if waste treatment, storage, or disposal activities are taking place at the time of the HRS score. These activities do not necessarily have to be those that resulted in the site being considered for the NPL. Sites that have changed ownership or operations are still considered "active" if the new operations possibly involve hazardous materials/wastes. "Inactive" sites are those at which treatment, storage, or disposal activities no longer occur. For consistency, address the following conditions as described below:

   - Check "active" for those sites that currently have both active and inactive treatment, storage, or disposal units.

   - Consider contaminated ground water plume sites "active."

8. **Years of Operation:** Enter the beginning and ending years of waste treatment, storage, and/or disposal at the site. If the site is "active," enter the HRS date for the ending date. Check "unknown" if the beginning or ending years of operation are not known. For consistency: if waste activities occurred during only one year (e.g., one-time event, accidental spill), the years of operation of the facility should be

entered, and noted in the "Comments" section. If the site is a contaminated ground water plume, use a default value of 0001 and 0001 for the beginning and ending years.

9. **Industry Responsible for Generating Material:** Check all appropriate boxes that indicate industries responsible for generating the wastes that occur at the site. This refers to the industry responsible for the waste, not the original product. For example, if a hardware store has drums of pesticides which leak, the industry responsible is "retail" and not "manufacturing." It is important to try to categorize the industry into one of the types listed for statistical analysis. If these listed industry types aren't applicable, check "other." Further information may be provided under the "Comments" section.

   For consistency among respondents, please note the following guidelines:

   - If the site is a military facility, *only* "military" should be checked.
   - Only check the "unknown" category if little or no information is available on the responsible industry or industries.
   - "Food and kindred products" refers to food packaging/processing industries (e.g., canneries, bottlers) and the manufacturing of home goods such as toothpaste, shampoo, and cosmetics.
   - "Chemicals and allied products" also includes paint manufacturing.
   - Mark "electroplating" for any type of metal coating or metal finishing industry, unless the industry employs another type of coating as the predominant activity (e.g., paint, plastic).
   - For the majority of cases, the "other" category should be used if a specific general or subcategory of another type is not obvious. Examples of "other" categories include:

     — combination industrial/ municipal landfill
     — industrial landfill
     — waste storage/transfer facility
     — POTW
     — correctional facility
     — distributor (gas, oil)
     — salvage yard
     — aircraft-related service
     — radium processing

10. **Site Activities/Waste Deposition:** Check all appropriate boxes to indicate what types of treatment, storage, or disposal operations occur/occurred at the site. If the available categories are not sufficient to characterize the activities occurring at the site, check "other" and supply a description. For consistency among respondents, please note the following guidelines:

    - "Surface impoundments" should be restricted to primarily liquid containment.
    - "Waste piles" may be covered or uncovered.

- "Industrial dump" refers to an illegal waste pile of industrial trash, chemicals, debris, etc.

- "Illegal dumping" ("out the back door") indicates situations where wastes are intentionally disposed of in undesignated disposal areas (e.g., dumping liquids and sludges onto the ground).

- "Episodic open dump" is a site at which third parties illegally dump wastes, often times without the knowledge or approval of the site owner/operator. Note that "episodic open dump" may be an appropriate category even for a permitted facility if, for example, area residents or industries dispose of wastes at the site without authorization.

- "Tanks — above ground" should be checked when the type of tank is not indicated, unless the site is a gasoline retail station.

- "Other sludge activity" refers to any sludge disposal action which cannot adequately be described by the other categories.

- "Discharge to sewer" should be checked when wastes have been intentionally discharged to either a sewer or a surface water body. This category does not refer to wastes entering sewers or surface water as a result of secondary run-off. Permitted discharges should be noted in this category as well as in the "Regulatory Activities" section.

- "Airborne release" should be checked when incinerators, boilers, fire or burn pits, excessive dust, etc., are present at the site.

- "Drum/container storage" refers to intentional storage in specific areas.

- "Spills" are accidental in nature, mostly one time only occurrences. Leaking drums do not qualify as spills.

Once again, try to categorize the activities or check "other" and give a description. Examples of legitimate "others" include:

- pesticide applications
- septic tanks and leach fields
- dust suppression
- wash pads
- sumps
- dry wells

11. **How Identified:** Check the appropriate box to indicate how the site was initially identified to the EPA Superfund Program. "Incidental" should be checked if the site was identified as a result of fortuitously driving by it, or by investigating another site. Anonymous complaints are categorized as "citizen complaints." "Other Federal program" should be marked for site identification through programs such as the DOD Installation Restoration Program. Examples of possible "other" categories include Congressional inquiry (e.g., Eckhardt list) and ERRIS listing.

12. **Material Deposited By:** Indicate the entity responsible for the actual waste deposition. For example, "present owner" would be checked if a private individual

authorized the dumping of chemical wastes on his property. However, "third party" would be checked in the same scenario if the property owner had *not authorized* the dumping. Again, for this category, "owner" refers to owner and/or operator. For consistency, check "third party" for all contaminated ground water plume sites.

13. **Date Discovered:** Enter two digits for the month, day, and year that the site was identified to the EPA Superfund Program. For example, June 27, 1982, would be entered as 06/27/82. In the event that the day or month is unknown, use *01* as the default value for each. If the date cannot be determined, check "unknown."

14. **Material Source:** Indicate whether the waste material was generated on site and/or off site, as appropriate. Recyclers are considered "on-site generators." For consistency, check "off-site generator" for contaminated ground water plume sites.

15. **Waste Easily Accessible:** Indicate whether or not the waste is easily accessible to the general public. On-site workers should not be considered for this data field. Items to be considered in judging accessibility include complete cover over the waste area or a secure fence around the site. For example, waste material exposed at the surface in a park or playground is easily accessible, while waste exposed at the surface of a site surrounded by a locked chain-link fence is not easily accessible. For consistency, the waste should be considered not easily accessible for contaminated ground water plume sites.

16. **First Proposed:** Check the appropriate box identifying in which update the site was first proposed in the Federal Register (this is usually listed under site name on the NPL folder).

17. **NPL Status:** Check the NPL status of the site as of proposed Update #9, July 1989. The NPL status of sites to be proposed for Update #10 should be marked as proposed.

18. **CERCLIS Number:** Enter the 12-digit CERCLIS number (usually on the SI form or CERCLIS printout).

19. **HRS Score:** Enter the HRS site score (Sm) from the HRS scoring package. If the scoring has been amended, use the most recent score. In the "Comments" section, indicate the score for each of the migration pathways.

20. **Miscellaneous Descriptive Information:** Identify, as appropriate, multiple ownership or emergency action conditions. Examples of "other emergency action" include:

- well closing
- distribution of bottled water
- fences
- consent decrees

Additionally, the presence of lead (Pb) at a site should be noted in the appropriate data field.

Section 3 - Waste Description

For data fields #1-3, wastes have been divided into three major groupings based on the physical state of the waste: solid, liquid, and sludge. The physical state of the waste refers to the waste as deposited and is usually identified as such in the HRS package or in the PA or SI. For example, slurries are identified as either liquid or sludge, rarely as solid. The presence of each of these waste states at the site needs to be determined, along with the quantities involved. Each waste state grouping has been further divided into the type of waste deposited. The procedure for completing this section, which should be followed for each waste state, is as follows:

1-3 **Solids, Liquids, Sludges:** First determine if the particular waste state being evaluated ("solid" will be used here as an example) is/was present at the site. If solid wastes are/were not present, check "none." If solids are/were present, then mark the appropriate waste type. If the subcategories listed are not sufficient to characterize the particular waste stream, check "other." As with the previous sections, the evaluator should use the categories presented if possible, or check "other" and provide a brief description. Some examples of "other" waste streams include:

- spent fuel
- drilling muds (sludge)
- dust
- agricultural waste
- biological waste (animal carcasses)
- batteries
- construction debris

Finally, total the quantities of all waste streams and fill in the amount in the space provided. Remember to mark the appropriate units.

NOTE: Identify the specific contaminants found at the site in the upper right hand corner of the "Comments" section.

Section 4 - Environmental/Demographic Information

1. **Demographics:**

   a. **Distance to Nearest Population:** If known, provide the distance from the site boundary to the nearest population. Also, indicate the unit of measure that was used. Population includes those persons occupying houses, apartment buildings, schools, and businesses. Use maps, if available, to provide best estimates. If there is an on-site *resident* population, use *10 feet* as a default value.

   b. **Population Within 1 Mile?:** If there is a population within 1 mile of the site, check "yes" and enter the number of people within this radius. When the number of individual residences is known, the convention is to multiply by 3.8 individuals/residence and use the product value as a reasonable population estimate. If a reasonable population estimate cannot be determined, check "yes" and leave the number field blank. A map may be used to determine population. If no appropriate information is in the file, check "unknown."

c. **Population Within 3 Miles?:** Follow the same procedures as described above. Again, a map may be useful. If data are available regarding population within 4 miles of the site, indicate this and use the information. If this information is not in the file, mark "unknown." By definition, if there is population within 1 mile of the site, there is also population within 3 miles of the site.

2. **Actual Environmental Damage Reported, Potential Population Affected:** Indicate whether actual environmental damage has been reported at this site. Note that this does not include potential damage, only documented cases of actual impacts. For example, if the PA report states that leachate was observed entering an adjacent stream or wetland, this can be considered an actual surface water impact, even if sampling results are not available. If "yes," indicate the type of damage that was reported and estimate the population that could potentially be affected. If the potential population is not known, write "unknown" in the space provided. Please note that, by definition, if an "HRS-observed release" has been scored for a given pathway, then an environmental impact has been reported for that pathway.

NOTE: The number for potential population is often provided on the PA or SI form.

3. **Observed Releases:** Indicate whether an observed release of contaminants has been documented. This information is available in the HRS scoring package.

4. **Water Supply Information for a 3-Mile Radius:**

a. **Local Drinking Water Supply Source:** Identify whether drinking water supplies are drawn from surface water and/or ground water within 3 miles of the site. If, for example, the local area has a reservoir but some houses within 3 miles still use wells, then check "surface and ground water." If all drinking water sources are outside of the 3-mile radius, this should be noted as "none."

b. **Total Population Served:** If available, provide the number of people served by the water supply system indicated in #4a. Note that this population should reflect the population *served by* a source within 3 miles of the site; it may be more or less than the total population within 3 miles. For example, if a well located two miles from the site is used to serve the population of a city of 60,000, the entire population of the city should be included even if the city itself is outside of the 3-mile radius. If there is no drinking water population (all sources are outside 3-mile radius), use a default value of *01*.

c. **Drinking Water Supply System Type:** Indicate the type of water supply system for the sources identified under #4a. "Municipal" should be indicated for any central water supply system, even if it is operated by a private water company, utility, or individual (e.g., trailer park serviced by one privately owned well).

d. **Ground Water Data:**

Other Local Ground Water Uses: Check all appropriate boxes for predominant uses of ground water other than drinking water supply. Monitoring wells should not be considered. Some examples of "other" uses include commercial and dust control.

Wells Within 1 Mile?: If there are operable wells within 1 mile of the site, check "yes" and indicate the total number of wells used for any purpose, excluding monitoring wells.

Wells Within 3 Miles?: If there are operable wells within 3 miles of the site, check "yes" and indicate the total number of wells used for any purpose, excluding monitoring wells.

Distance to Nearest Well: Provide the distance from the site boundary to the nearest operable well, excluding monitoring wells. Indicate what unit of measure was used. If the well is located on site, use *10 feet* as a default value. Note that by HRS definitions, the site boundary can be extended to the farthest point of documented contamination attributable to the site.

Depth to the Uppermost Used Aquifer: Provide the depth from the ground surface to the uppermost aquifer that is or may be used. If the uppermost aquifer is no longer used because of contamination attributable to the site, the depth to this aquifer should be entered. Always indicate the unit of measure used. If a range of depth is given, use the midpoint value for the data field. Use a default value of *1 foot* if waste was directly deposited below the water level of the uppermost used aquifer.

NOTE: "Depth to the Uppermost Used Aquifer" is often provided in the HRS scoring package.

e. **Surface Water Data:**

Other Local Surface Water Uses: Mark all appropriate boxes for uses of surface water, other than drinking water supply, within 3 miles.

Surface Water Adjacent to/Draining Site: Identify all types of surface water adjacent to or draining the site that could potentially be affected by overland runoff from the site. Use professional judgment and HRS definitions as necessary.

Distance to Nearest Downstream Intake: Provide the distance to the nearest downstream intake in feet or miles, if known.

5. **Ecological Information:**

Is Site In Or Near Sensitive Environment?: Sensitive environments are defined as estuaries, 100 year floodplains, critical habitats (Federally designated only) and some coastal areas. If the site is in or near one of these environments, indicate the

type of sensitive environment and whether the site is "in" or "near" the environment. "Near" is considered to be within a 3-mile radius.

6. **Pathways of Concern:** Check all pathways that received a score greater than zero in the HRS scoring package. When reviewing the HRS scoring package, please note the actual score for each pathway in the "Comments" section.

Section 5 - Regulatory and Response History

1. **Regulatory Activities Prior to Preliminary Assessment:** Indicate any regulatory activities that occurred at the site prior to the PA. Examples of these activities could include RCRA notification or inspections, NPDES permits and/or exceedences, State health department inspections of landfills and/or DOD Installation Restoration Program activities ("other Federal program" category).

2. **RCRA Status:** Indicate the appropriate RCRA category. If the site is not a RCRA site, check "not applicable." Ground water contamination plume sites are to be included in the "not applicable" category.

Section 6 - Comments

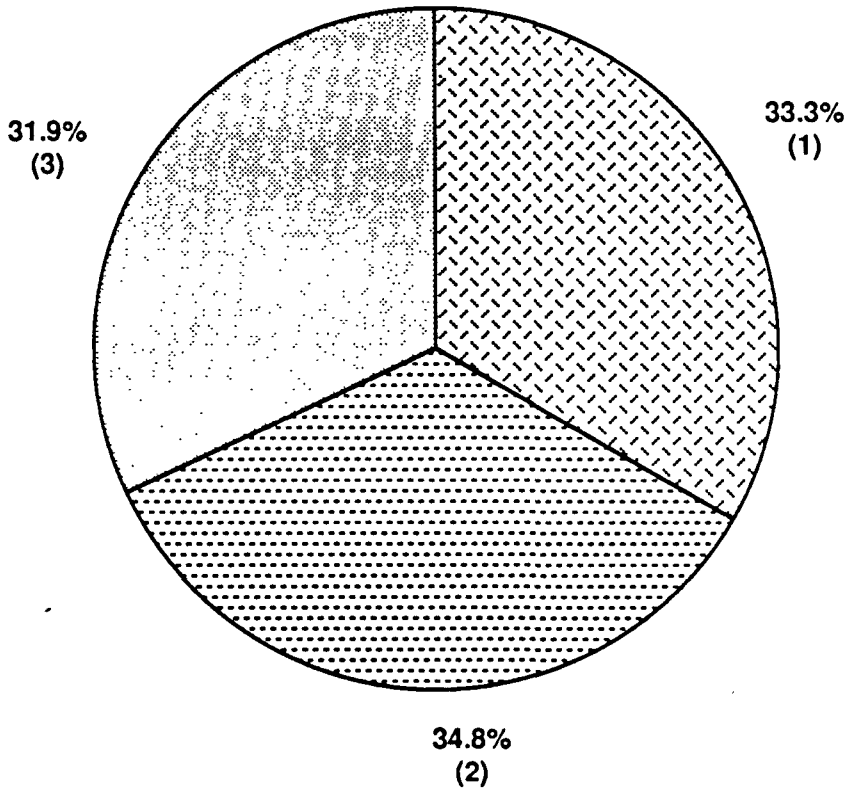
This section is *not an optional segment* of the data collection form. It *must* be completed, at a minimum, with a brief narrative description of site conditions, including any discussion or clarification of the information presented elsewhere on the form. In addition, each form must be quality control checked for completeness, and initialed by another evaluator in the lower right corner of page 4. The "Comments" section is a crucial component of the data collection form; verbosity is encouraged.

CHAPTER 3: SITE DESCRIPTION

- Chart 1: Site Setting
- Chart 2: Area of Site
- Chart 3: Predominant Land Uses in Site Vicinity
- Chart 4: Treatment, Storage, or Disposal Activities Occurring at Site
- Chart 5: Waste Easily Accessible to Public
- Chart 6: Distance to Nearest Population

REGION 10

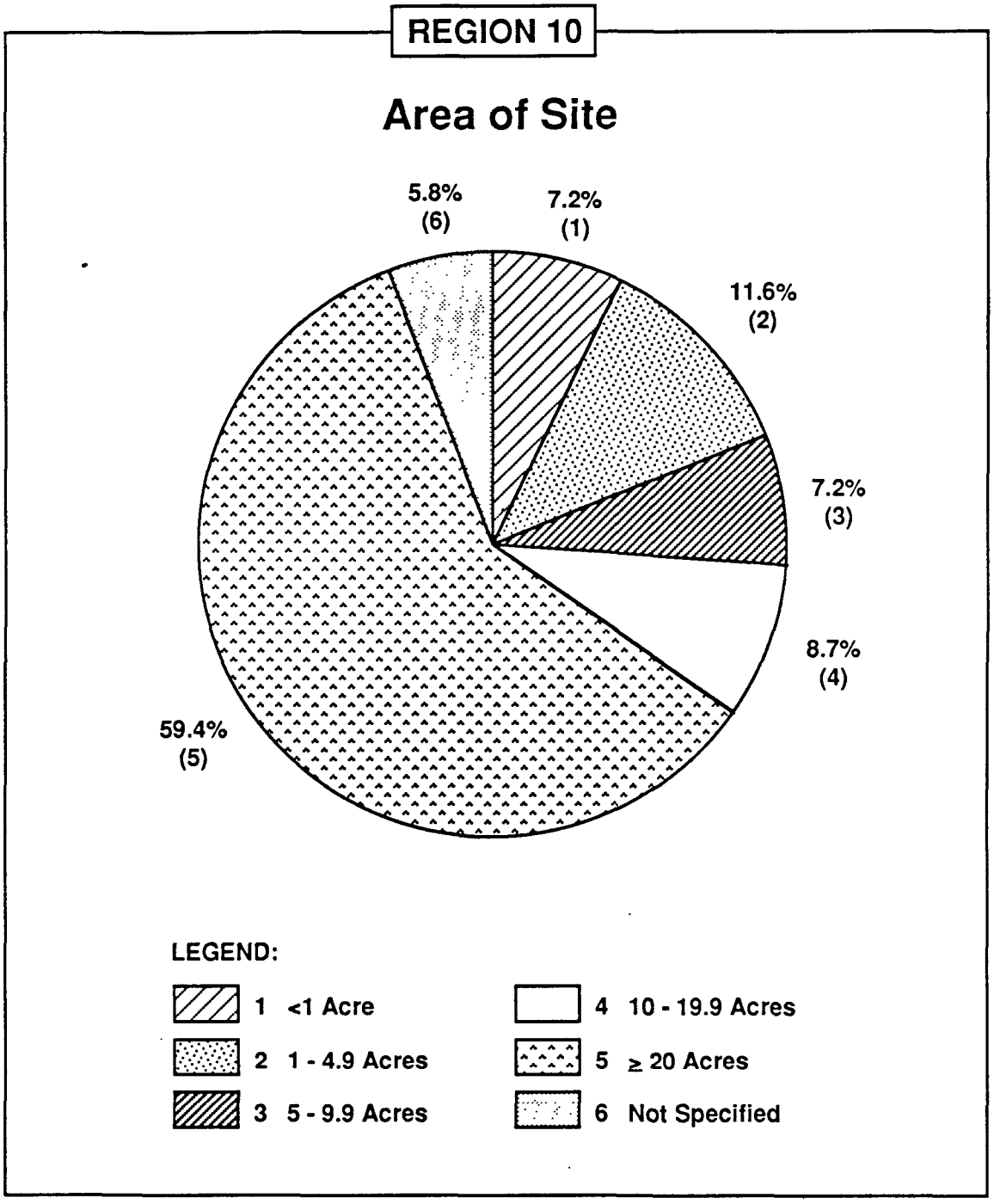
Site Setting



Not Shown - Not Specified (0.0%)

Note: This figure depicts information collected on the NPL Statistics Data Collection Form in the Site Description Section, Question 2, Setting.

Chart 1

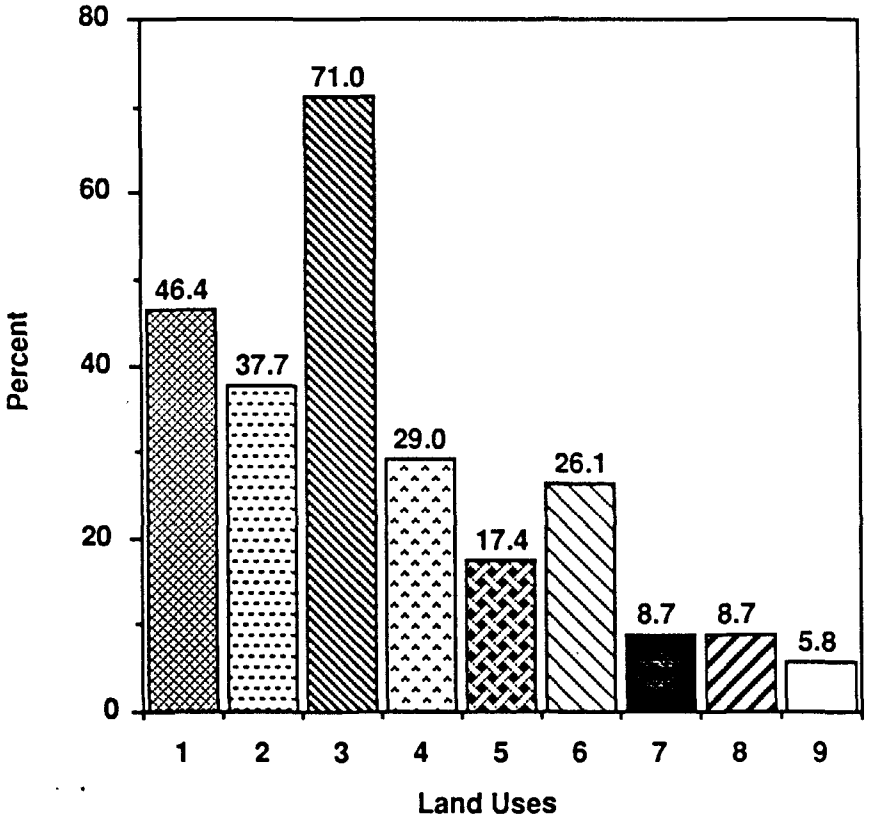


Note: This figure depicts information collected on the NPL Statistics Data Collection Form in the Site Description Section, Question 6, Area of Site.

Chart 2

REGION 10

Predominant Land Uses in Site Vicinity



LEGEND:

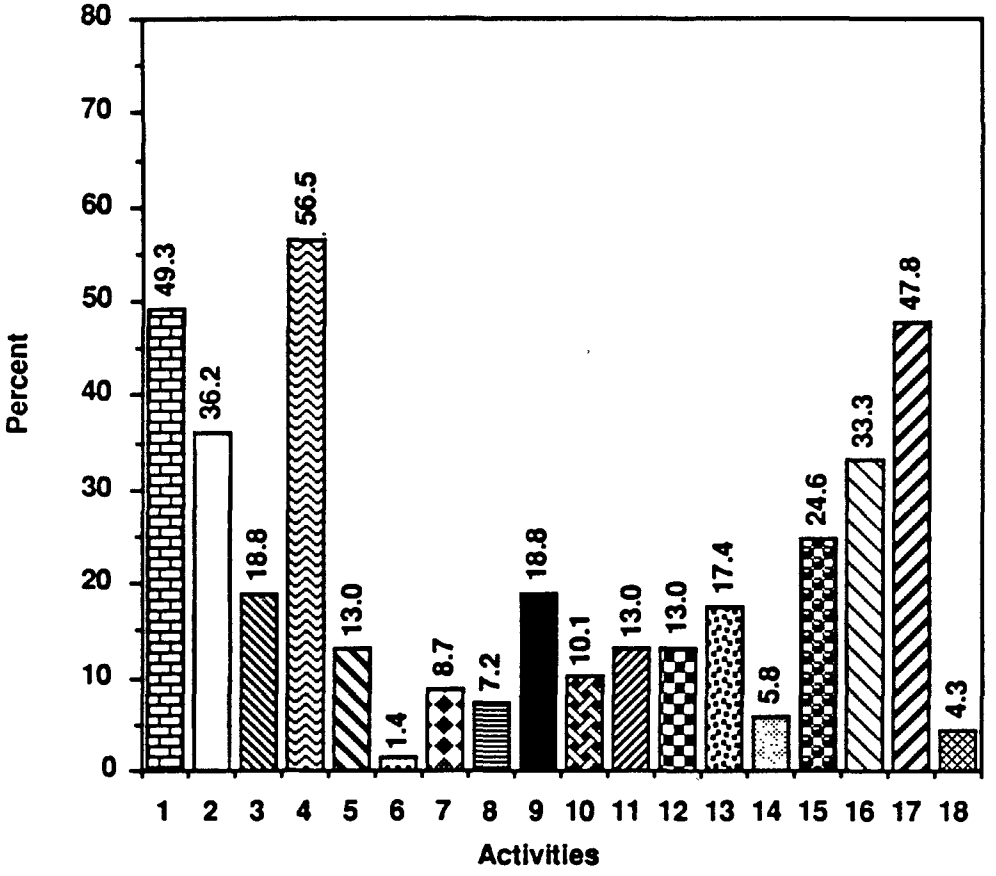
1 Industrial Area
2 Commercial District
3 Residential
4 Agricultural
5 Forest/Fields
6 Military
7 Department of Energy
8 Mining
9 Not Specified

Notes: (1) This figure depicts information collected on the NPL Statistics Data Collection Form in the Site Description Section, Question 3, Location Land Use/Site Use.
(2) See Appendix A for a complete listing of "Other" responses.

Chart 3

REGION 10

Treatment, Storage, or Disposal Activities Occurring at Site



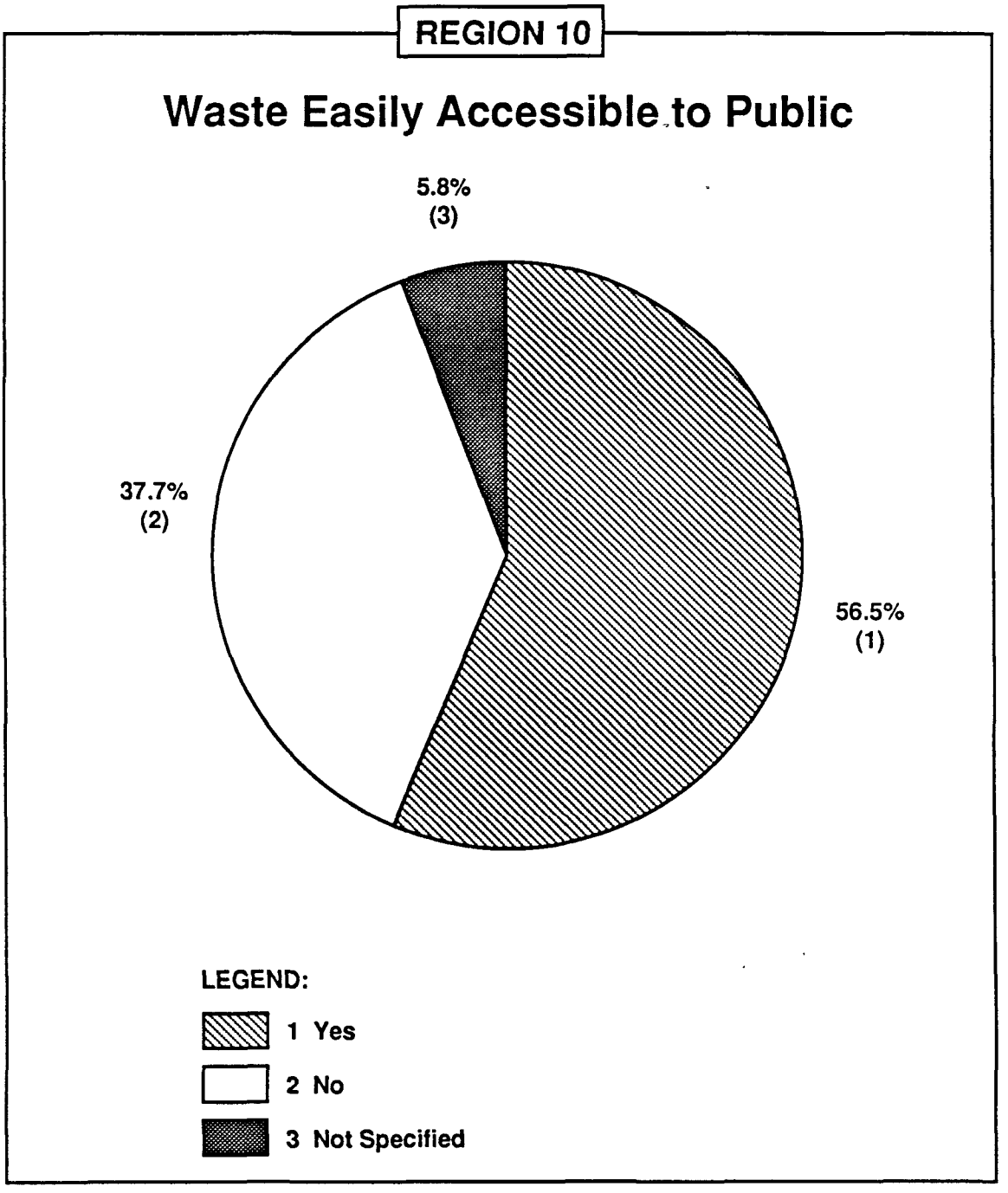
LEGEND:

- 1 Surface Impoundment
- 2 Waste Piles
- 3 Municipal Landfill
- 4 Industrial Landfill
- 5 Open Dump - Drums
- 6 Open Dump - Trash, White Goods, Etc.
- 7 Illegal Dumping
- 8 Episodic Open Dump
- 9 Tanks - Above Ground
- 10 Tanks - Below Ground
- 11 Sludge Disposal
- 12 Discharge to Sewer/ Surface Water
- 13 Recycling Facility
- 14 Underground Injection Well
- 15 Airborne Release/ Incineration
- 16 Drum/Container Storage
- 17 Spill
- 18 Not Specified

Not Shown - Land Treatment Facility (0.0%), Field Pesticide Application (0.0%)

Notes: (1) This figure depicts information collected on the NPL Statistics Data Collection Form in the Site Description Section, Question 10, Site Activities/Waste Deposition.
(2) See Appendix A for a complete listing of "Other" responses.
(3) Tanks were assumed to be above ground unless otherwise specified.

Chart 4

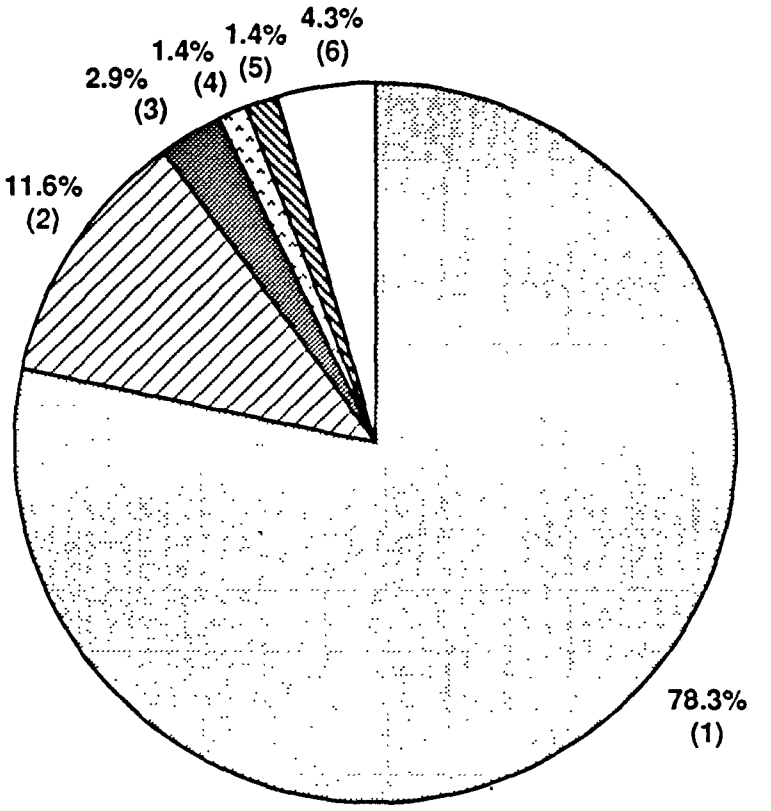


Note: This figure depicts information collected on the NPL Statistics Data Collection Form in the Site Description Section, Question 15, Waste Easily Accessible.

Chart 5

REGION 10

Distance to Nearest Population



LEGEND:

1 ≤10 Feet
2 >10 Feet - 1/4 Mile
3 >1/4 Mile - 1/2 Mile
4 >1/2 Mile - 1 Mile
5 >1 Mile
6 Not Specified

Notes: (1) This figure depicts information collected on the NPL Statistics Data Collection Form in the Environmental/Demographic Information Section, Question 1a, Distance to Nearest Population.
(2) On-site workers are included in the ≤ 10 Feet category.

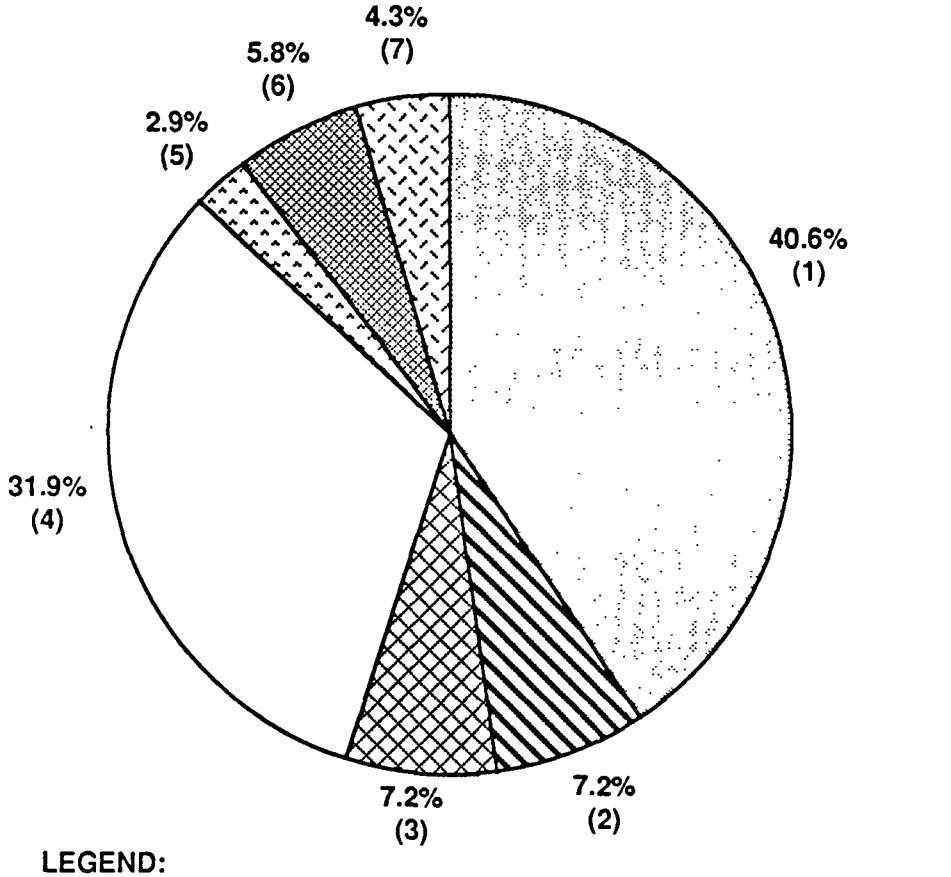
Chart 6

CHAPTER 4: OWNER/GENERATOR INFORMATION

- Chart 7: Owner/Operator of Site at Time of HRS Score
- Chart 8: Owner/Operator of Site at Time of Contamination
- Chart 9: Status of Site at Time of HRS Score
- Chart 10: Industry Responsible for Generating Waste: Major Categories
- Chart 11: Industry Responsible for Generating Waste: Manufacturing Category Details
- Chart 12: Waste Depositor
- Chart 13: Waste Generator
- Chart 14: Beginning Year of Site Operation
- Chart 15: Ending Year of Site Operation
- Chart 16: Total Years of Site Operation

REGION 10

Owner/Operator of Site at Time of HRS Score

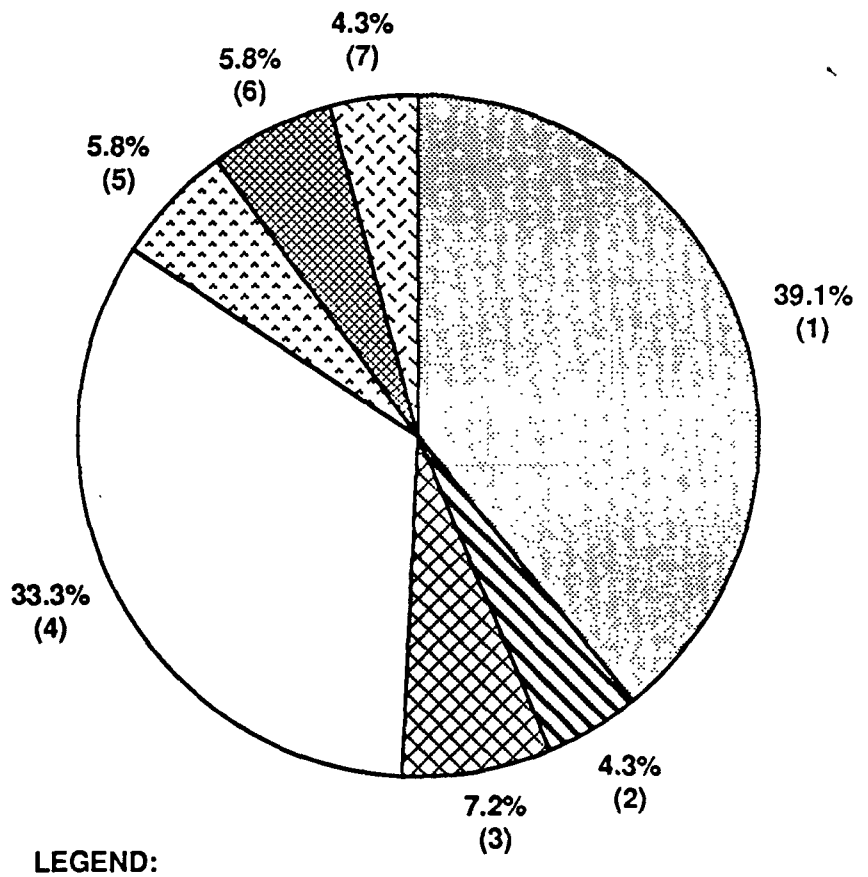


Notes: (1) This figure depicts information collected on the NPL Statistics Data Collection Form in the Site Description Section, Question 4, Current Ownership.
(2) Contaminated ground water plume sites are included in the "Other" category.

Chart 7

REGION 10

Owner/Operator of Site at Time of Contamination



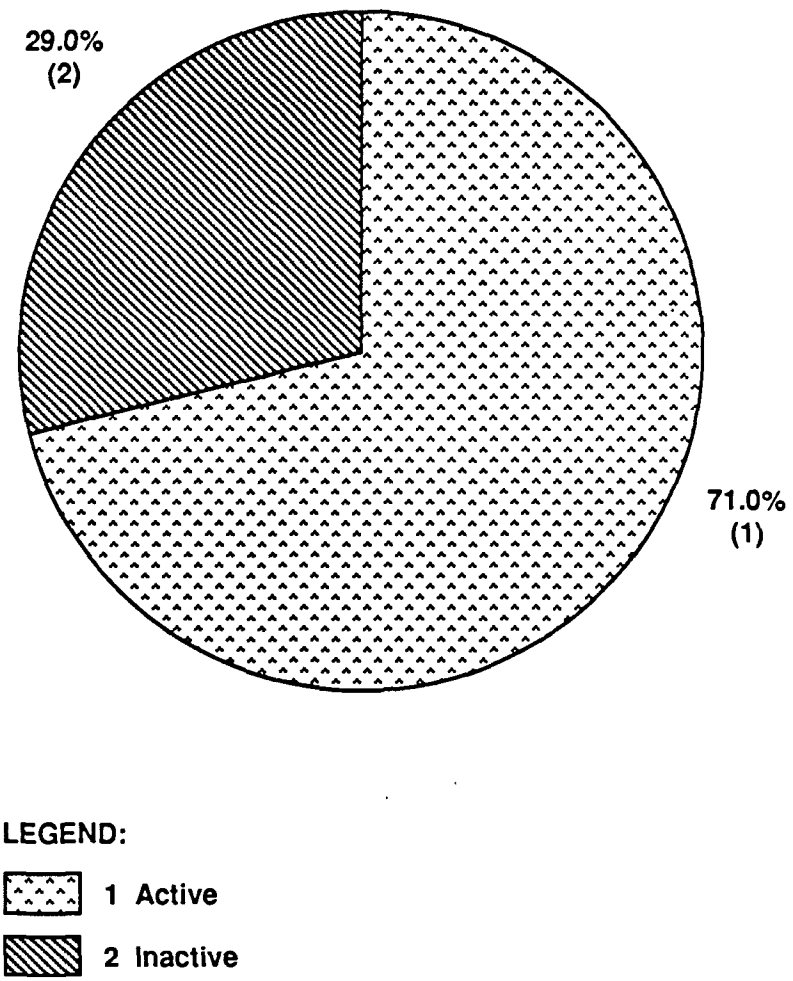
Not Shown - State (0.0%), Indian Lands (0.0%), Not Specified (0.0%)

Notes: (1) This figure depicts information collected on the NPL Statistics Data Collection Form in the Site Description Section, Question 5, Ownership When Contaminated.
(2) Contaminated ground water plume sites are included in the "Other" category.

Chart 8

REGION 10

Status of Site at Time of HRS Score



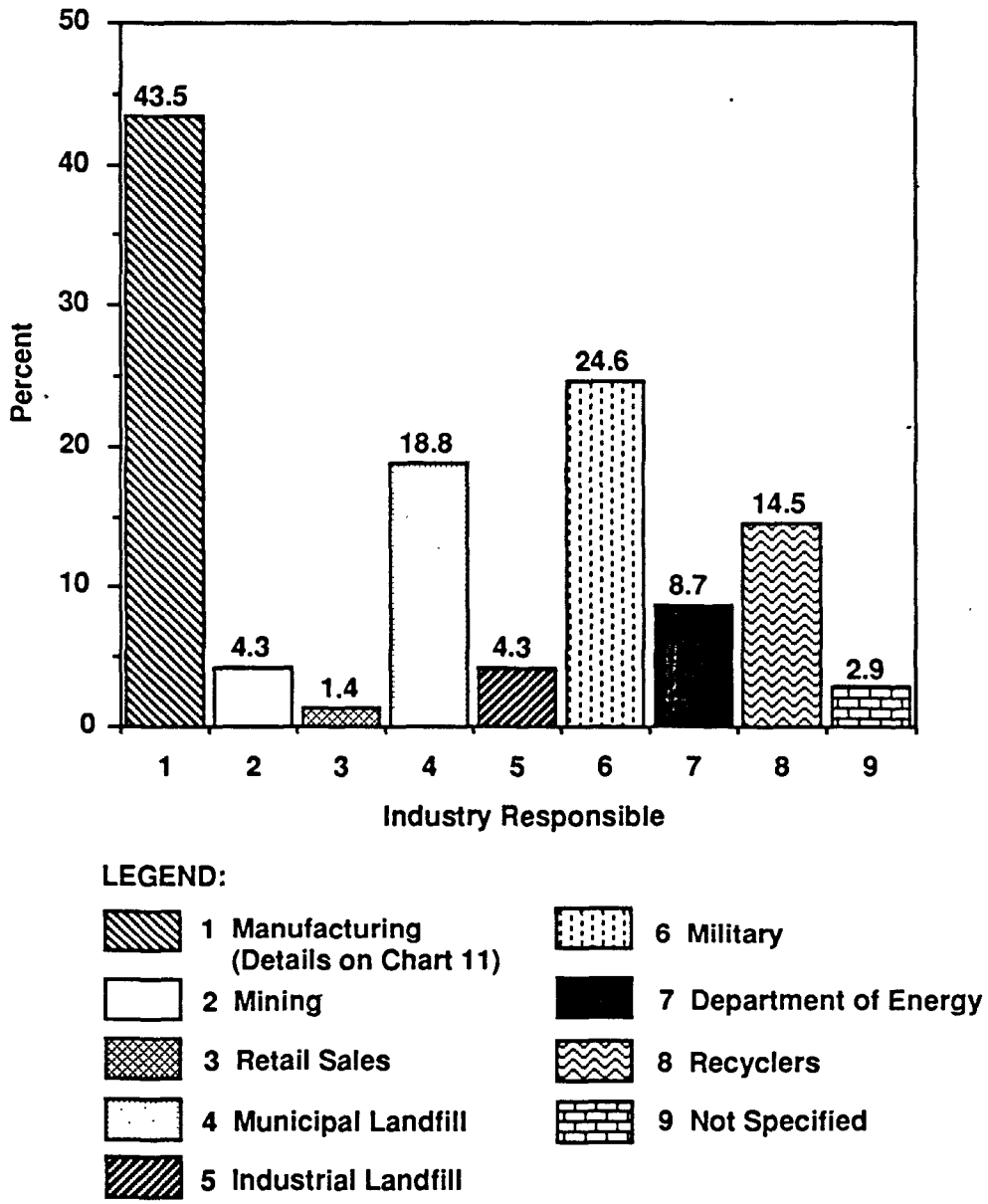
Notes: (1) This figure depicts information collected on the NPL Statistics Data Collection Form in the Site Description Section, Question 7, Site Status.

(2) Sites were considered "active" if waste treatment, storage, or disposal activities were taking place at the time of the HRS score. These activities were not necessarily those that led to NPL listing. Contaminated ground water plume and widespread sediment contamination sites were considered active.

Chart 9

REGION 10

Industry Responsible for Generating Waste: Major Categories

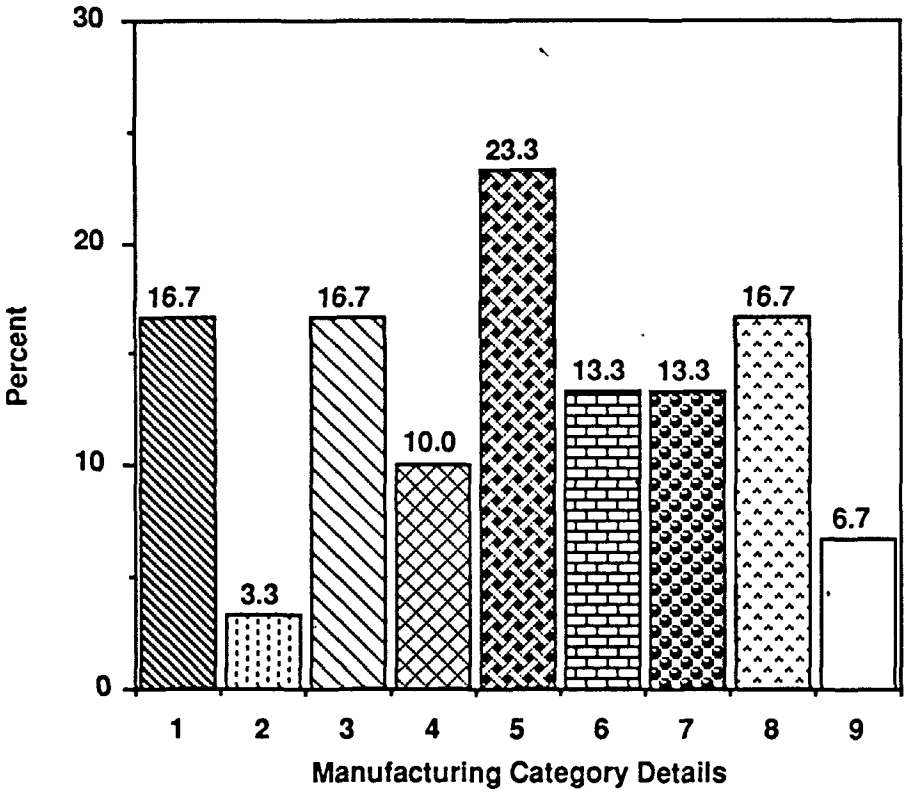


Notes: (1) This figure depicts information collected on the NPL Statistics Data Collection Form in the Site Description Section, Question 9, Industry Responsible for Generating Material.
(2) See Appendix A for a complete listing of "Other" responses.

Chart 10

REGION 10

Industry Responsible for Generating Waste: Manufacturing Category Details



LEGEND:

- 1 Lumber and Wood Products
- 2 Paper and Allied Products
- 3 Chemicals and Allied Products
- 4 Petroleum Refining and Related Industries
- 5 Primary Metal Products
- 6 Fabricated Metal Products
- 7 Electroplating
- 8 Electronic and Electrical Equipment
- 9 Electric Power Production and Distribution

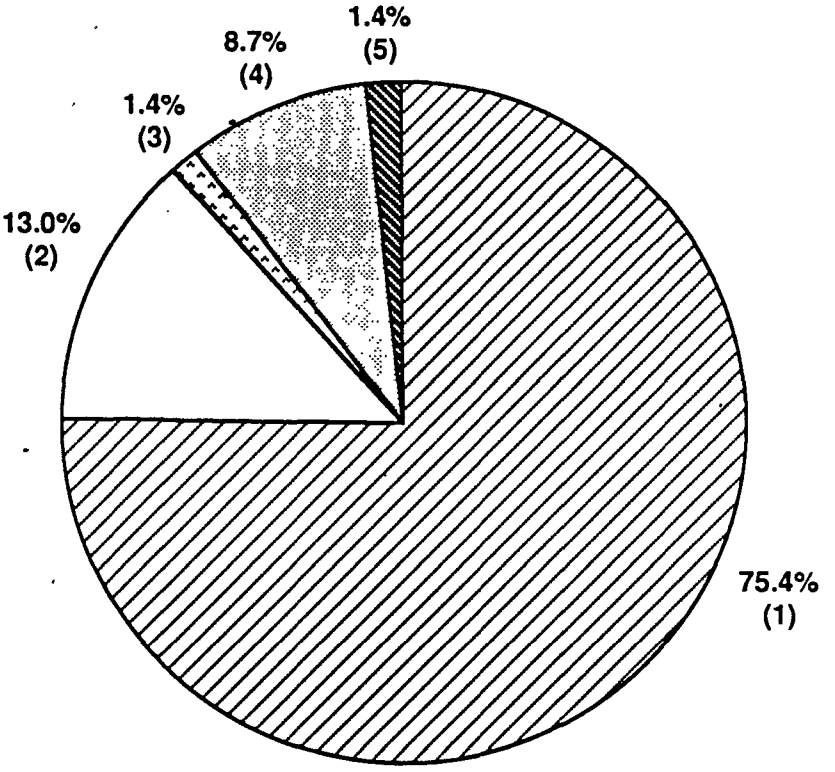
Not Shown - Food and Kindred Products (0.0%), Agriculture (0.0%), Textile Mill Products (0.0%), Construction (0.0%), Rubber and Plastic Products (0.0%)

Notes: (1) This figure depicts information collected on the NPL Statistics Data Collection Form in the Site Description Section, Question 9, Industry Responsible for Generating Material.
(2) Percentages are based on sites in the Manufacturing category only (43.5% of all Region 10 NPL sites).

Chart 11

REGION 10

Waste Depositor



LEGEND:

1 Present Owner/Operator

2 Former Owner/Operator

3 Third Party

4 Present Owner/Operator and Former Owner/Operator

5 Not Specified

Not Shown - Other (0.0%)

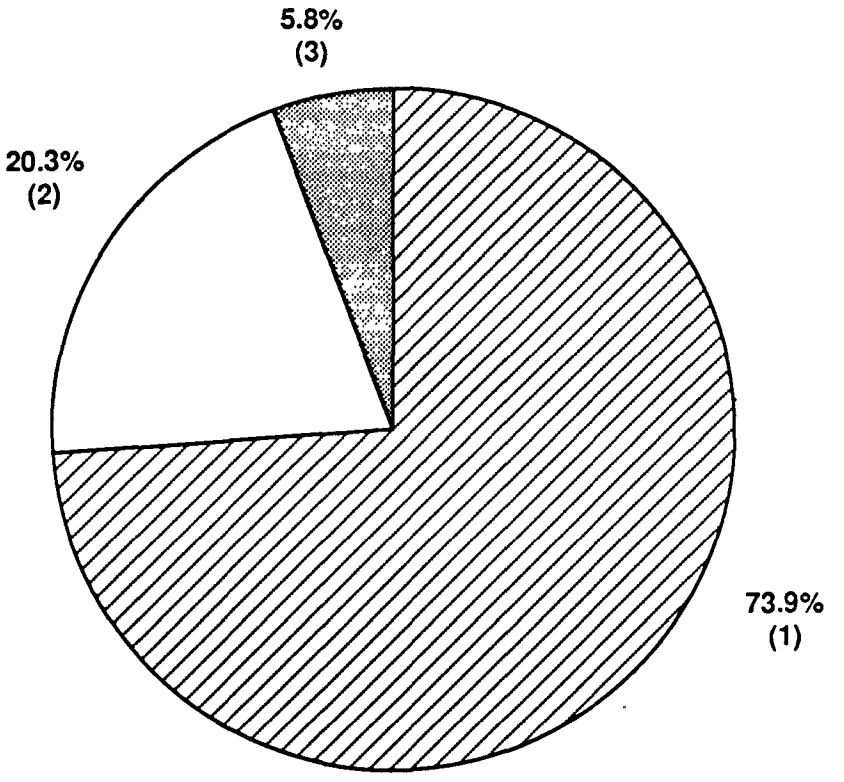
Notes: (1) This figure depicts information collected on the NPL Statistics Data Collection Form in the Site Description Section, Question 12, Material Deposited By.

(2) "Present owner/operator" was defined as the owner/operator at the time of the HRS score.

Chart 12

REGION 10

Waste Generator



LEGEND:

1 On-site Generator

2 Off-site Generator

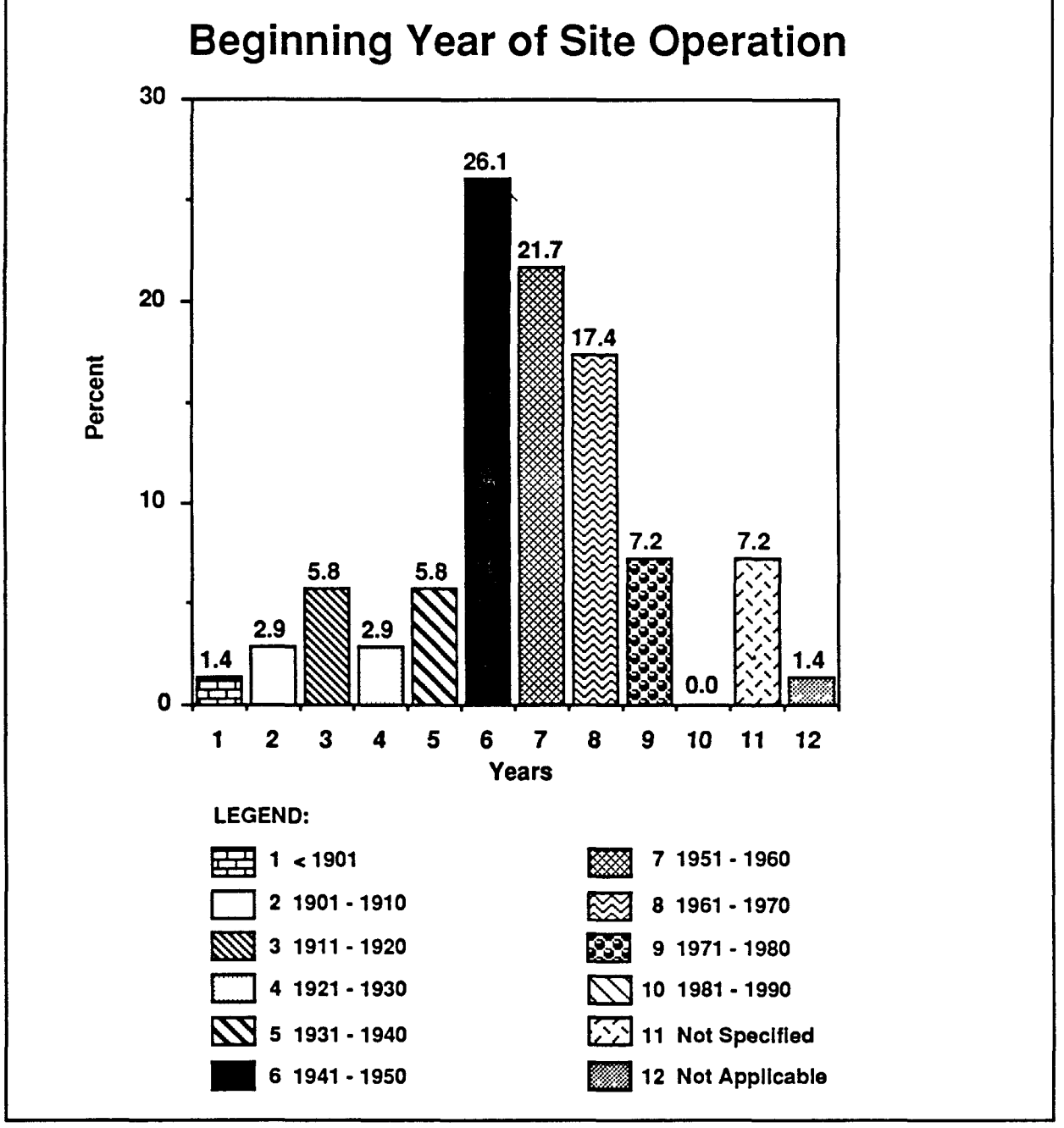
3 On-site Generator and Off-site Generator

Not Shown - Not Specified (0.0%)

Notes: (1) This figure depicts information collected on the NPL Statistics Data Collection Form in the Site Description Section, Question 14, Material Source.
(2) "Off-site generator" was recorded for all contaminated ground water plume and widespread sediment contamination sites.

Chart 13

REGION 10

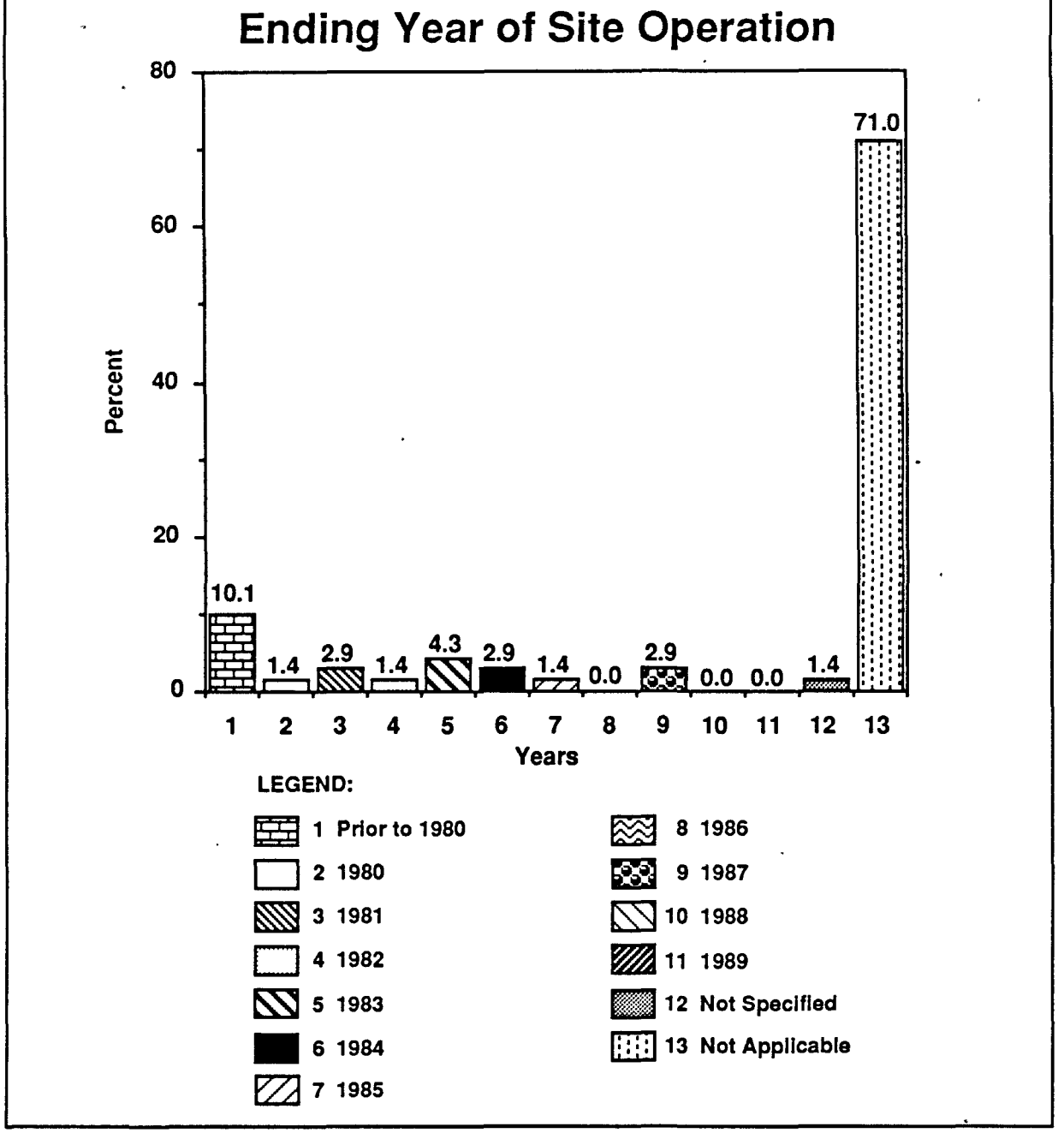


Notes: (1) This figure depicts information collected on the NPL Statistics Data Collection Form in the Site Description Section, Question 8, Years of Operation.

(2) "Not applicable" refers to contaminated ground water plume sites. For these sites, the source of contamination was not documented at the time of the HRS score. The sites themselves do not consist of operating or formerly operating facilities; therefore, "Years of Operation" is not applicable.

Chart 14

REGION 10

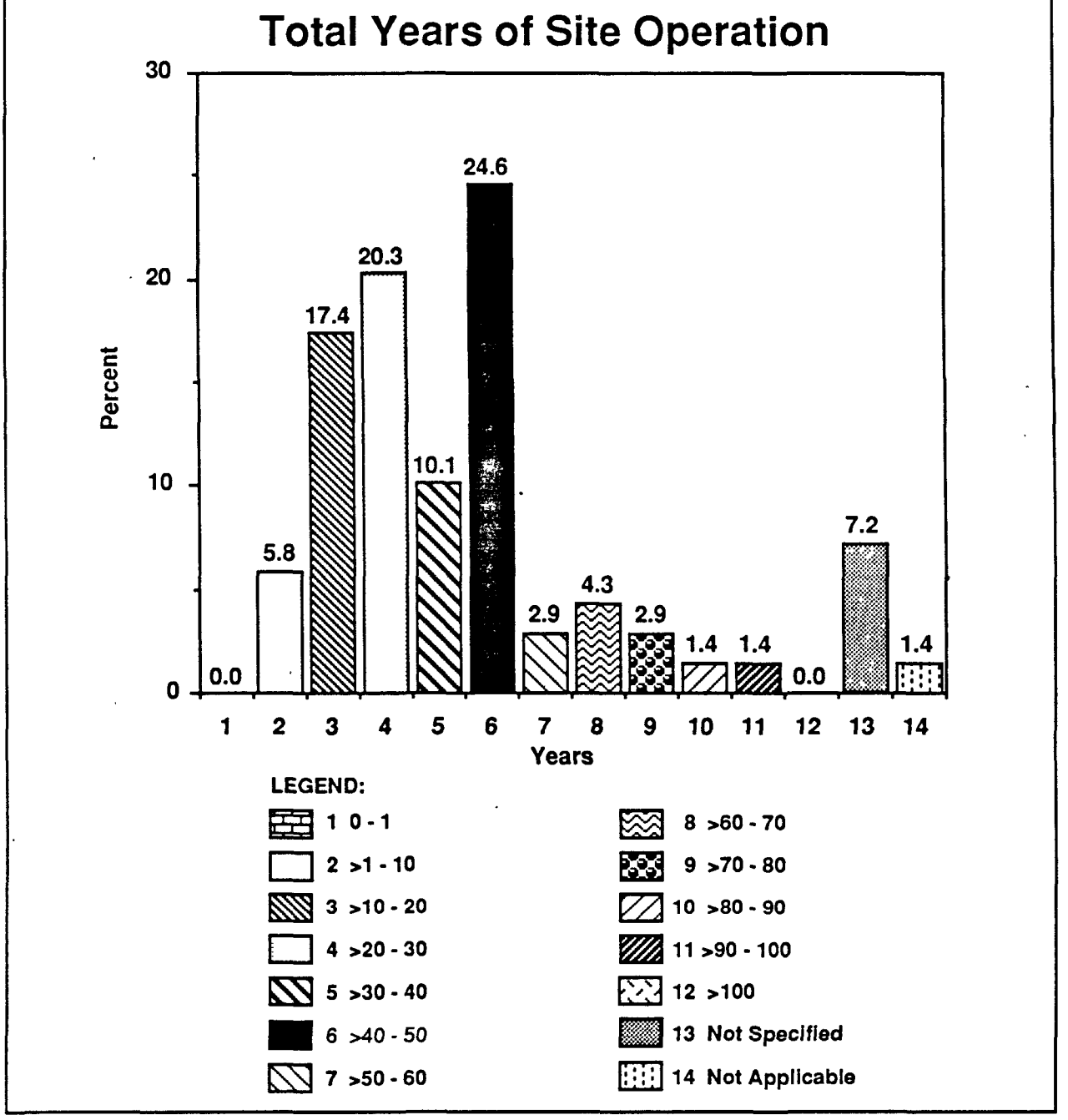


Notes: (1) This figure depicts information collected on the NPL Statistics Data Collection Form in the Site Description Section, Question 8, Years of Operation.

(2) "Not applicable" refers to all NPL sites that were "active" at the time of the HRS score. "Active" sites by definition do not have an ending year of operation; therefore, they have been depicted as "not applicable" on this figure. Because all contaminated ground water plume sites were characterized as "active," they have also been depicted as "not applicable" on this figure.

Chart 15

REGION 10



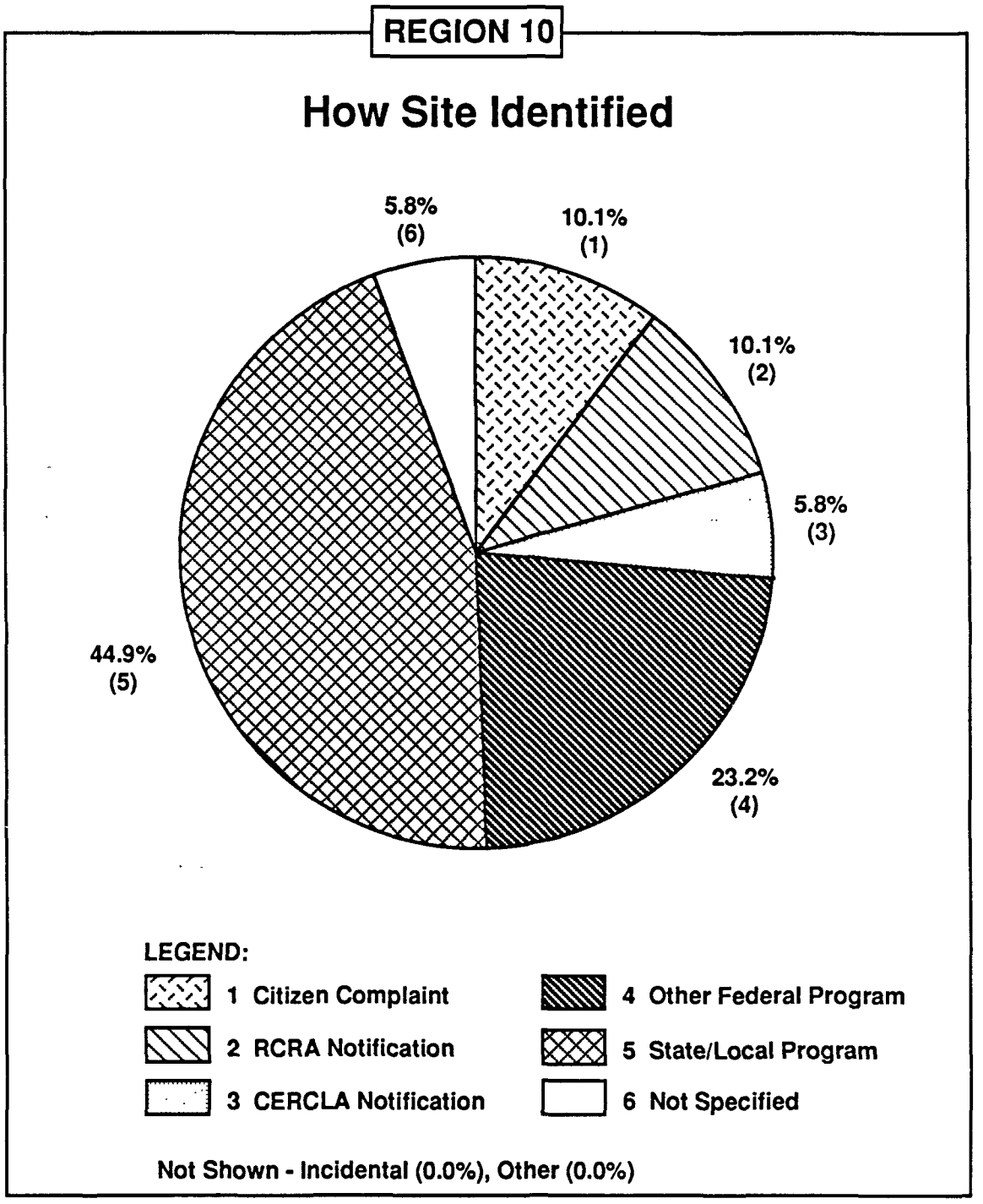
Notes: (1) This figure depicts information collected on the NPL Statistics Data Collection Form in the Site Description Section, Question 8, Years of Operation.

(2) "Not applicable" refers to contaminated ground water plume sites. For these sites, the source of contamination was not documented at the time of the HRS score. The sites themselves do not consist of operating or formerly operating facilities; therefore, "Years of Operation" is not applicable.

Chart 16

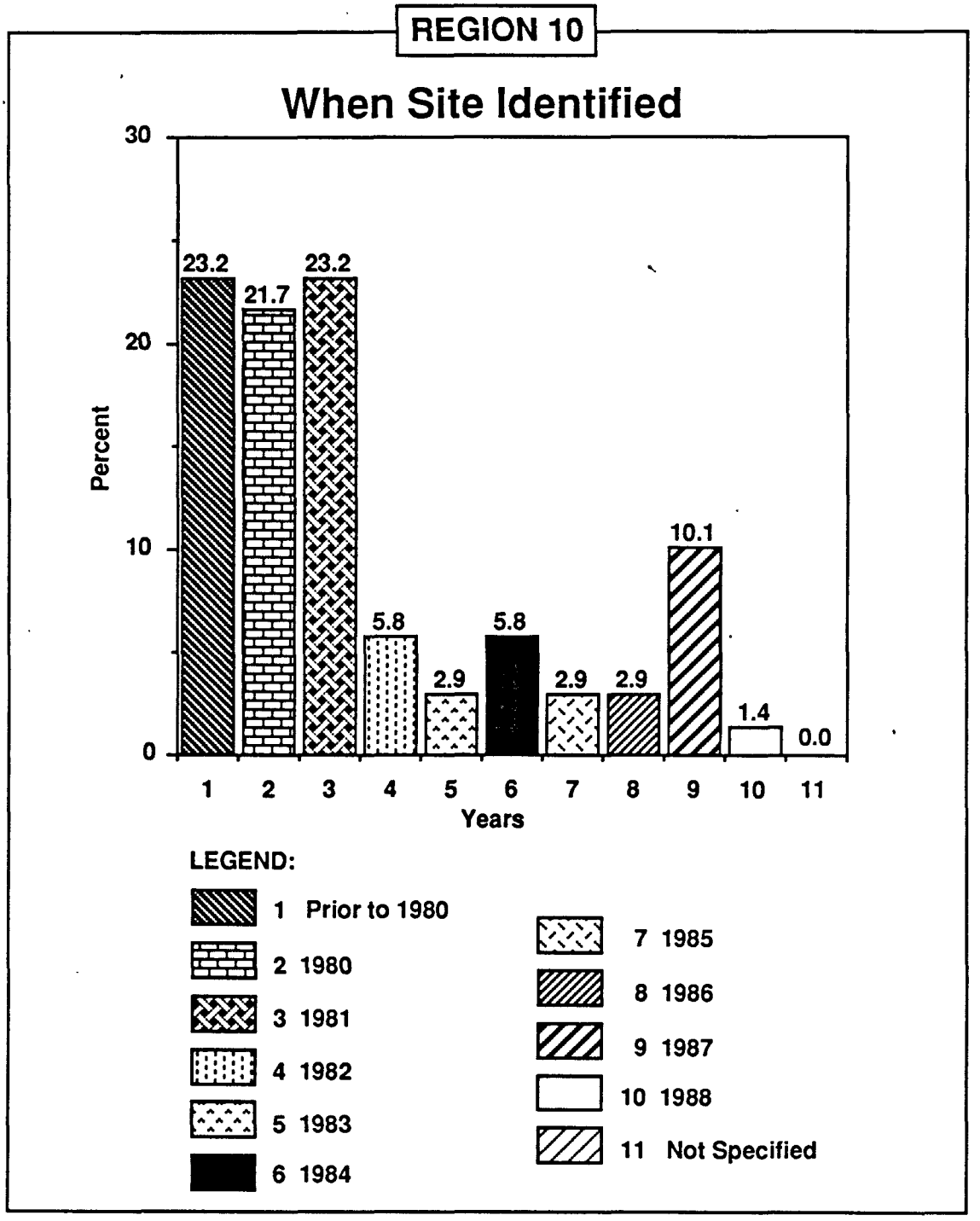
CHAPTER 5: REGULATORY AND RESPONSE HISTORY

- Chart 17: How Site Identified
- Chart 18: When Site Identified
- Chart 19: Regulatory Activities Prior to CERCLA Involvement
- Chart 20: Miscellaneous Descriptive Information



Note: This figure depicts information collected on the NPL Statistics Data Collection Form in the *Site Description Section, Question 11, How Identified.*

Chart 17

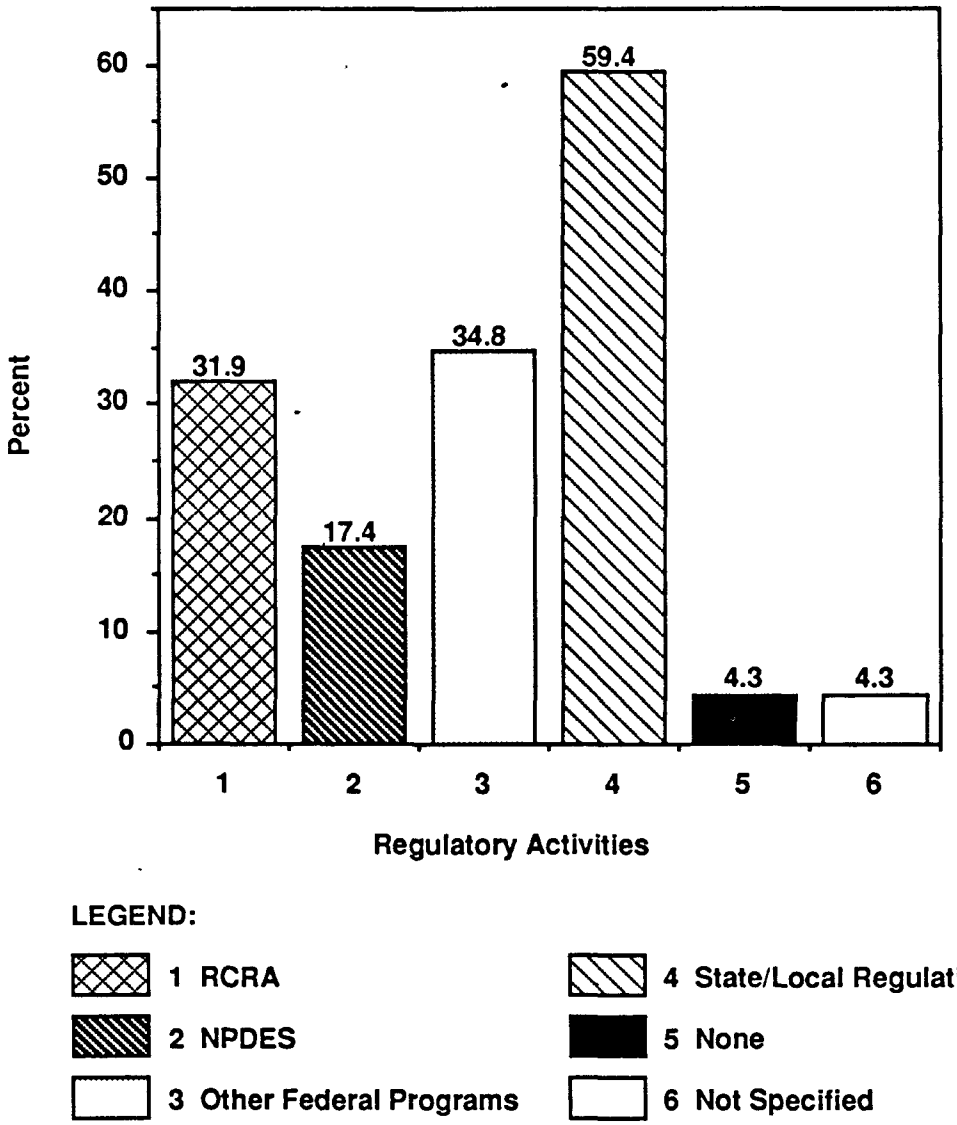


Note: This figure depicts information collected on the NPL Statistics Data Collection Form in the Site Description Section, Question 13, Date Discovered.

Chart 18

REGION 10

Regulatory Activities Prior to CERCLA Involvement

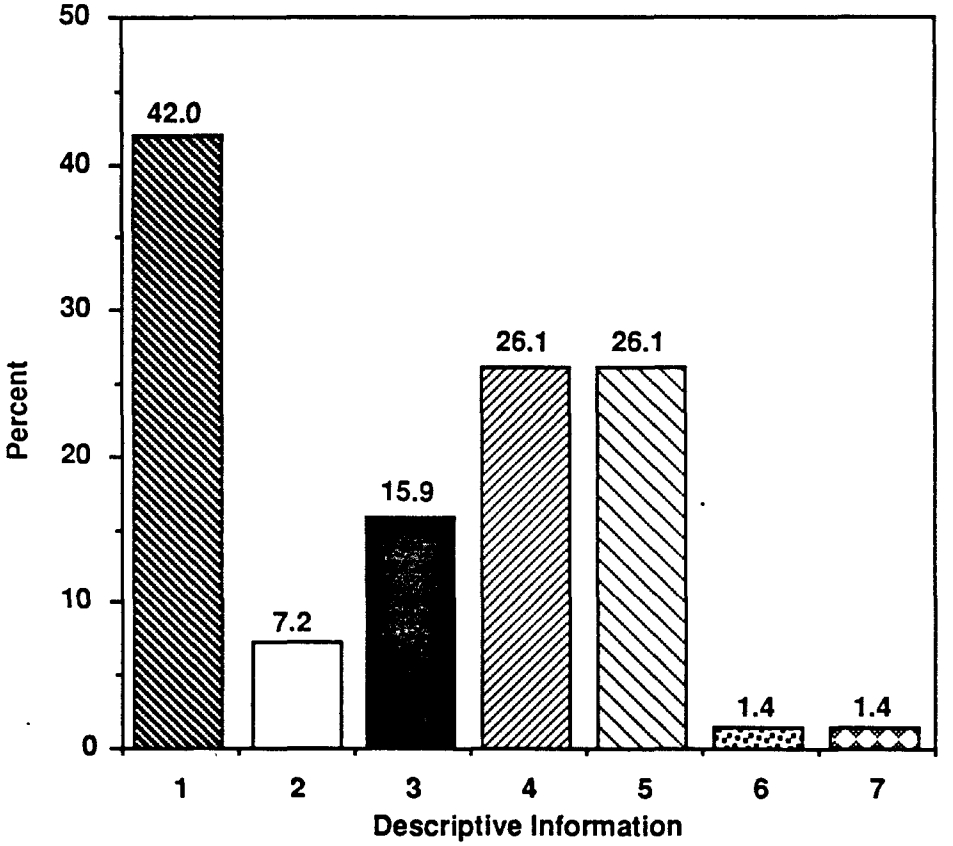


Note: This figure depicts information collected on the NPL Statistics Data Collection Form in the Regulatory and Response History Section, Question 1, Regulatory Activities Prior to CERCLA Involvement.

Chart 19

REGION 10

Miscellaneous Descriptive Information



LEGEND:

1 Consists of Multiple Units

2 Units Owned by Multiple Entities

3 Emergency Removal Has Occurred

4 Other Emergency Action Has Occurred

5 Lead Waste Present

6 Widespread Sediment Contamination

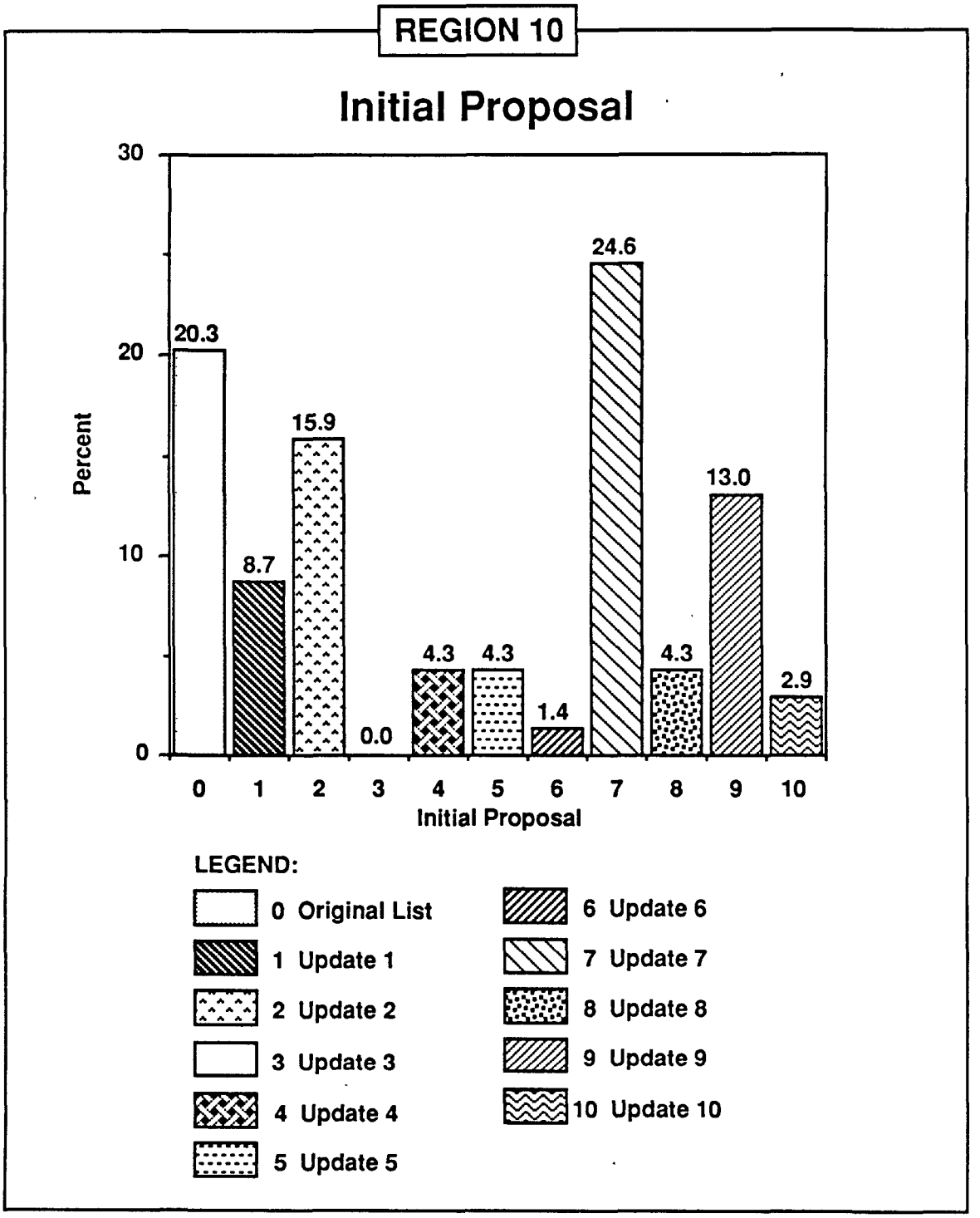
7 Contaminated Ground Water Plume

Note: This figure depicts information collected on the NPL Statistics Data Collection Form in the Site Description Section, Question 20, Miscellaneous Descriptive Information.

Chart 20

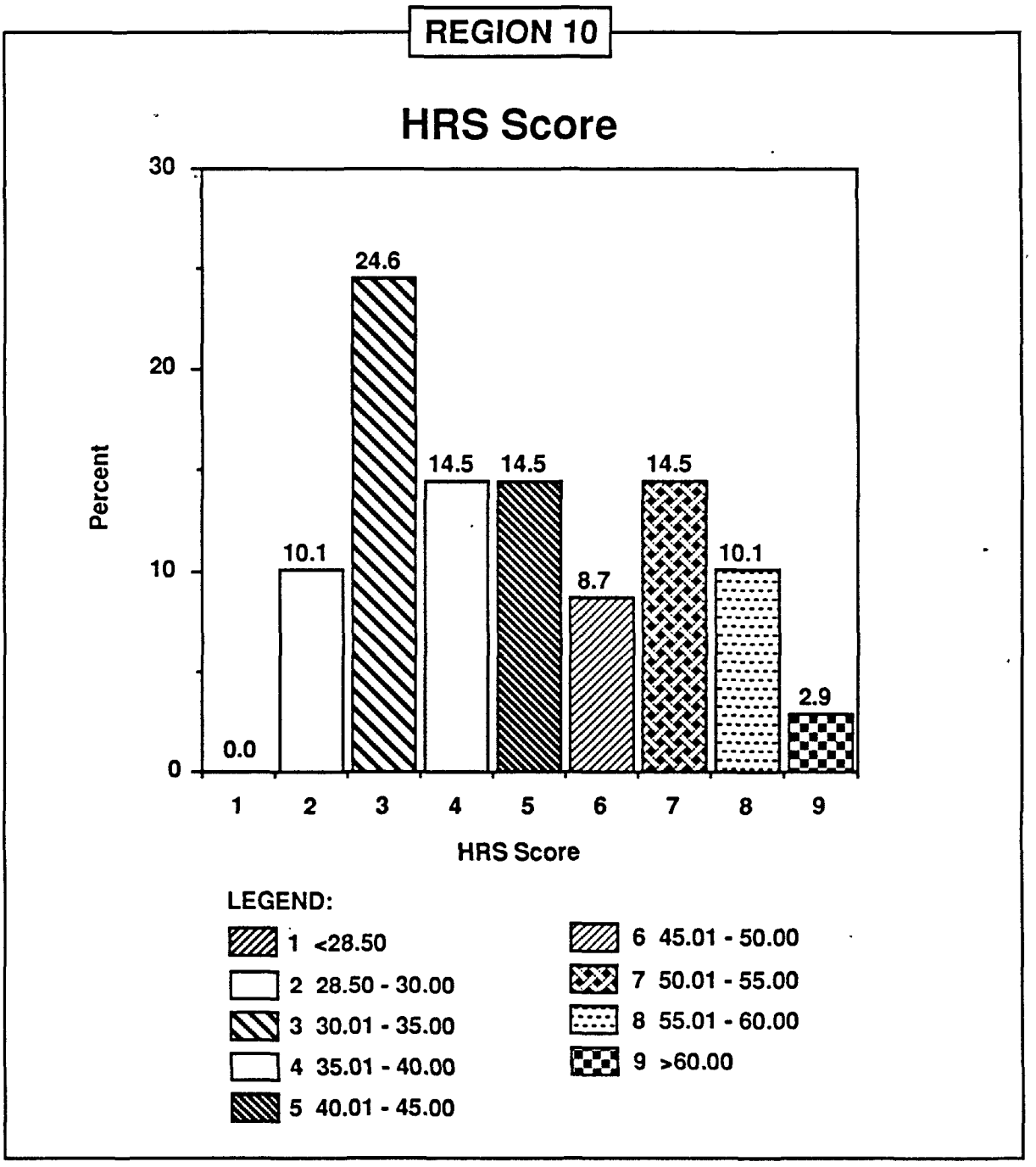
CHAPTER 6: HRS SCORING INFORMATION

- Chart 21: Initial Proposal
- Chart 22: HRS Score
- Chart 23: Observed Releases
- Chart 24: Pathways Scored
- Chart 25: Pathways of Concern
- Chart 26: NPL Status



Note: This figure depicts information collected on the NPL Statistics Data Collection Form in the Site Description Section, Question 16, First Proposed.

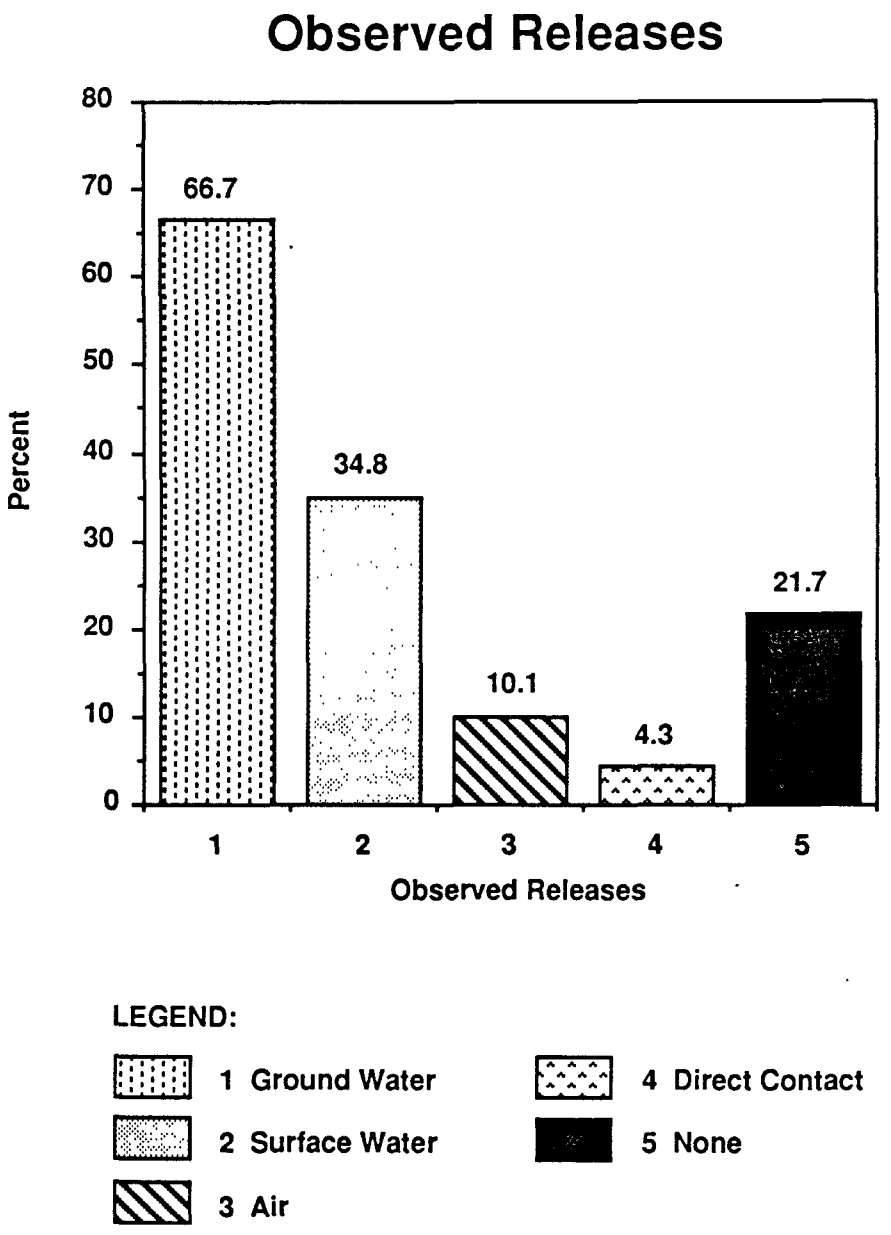
Chart 21



Note: This figure depicts information collected on the NPL Statistics Data Collection Form in the Site Description Section, Question 19, HRS Score.

Chart 22

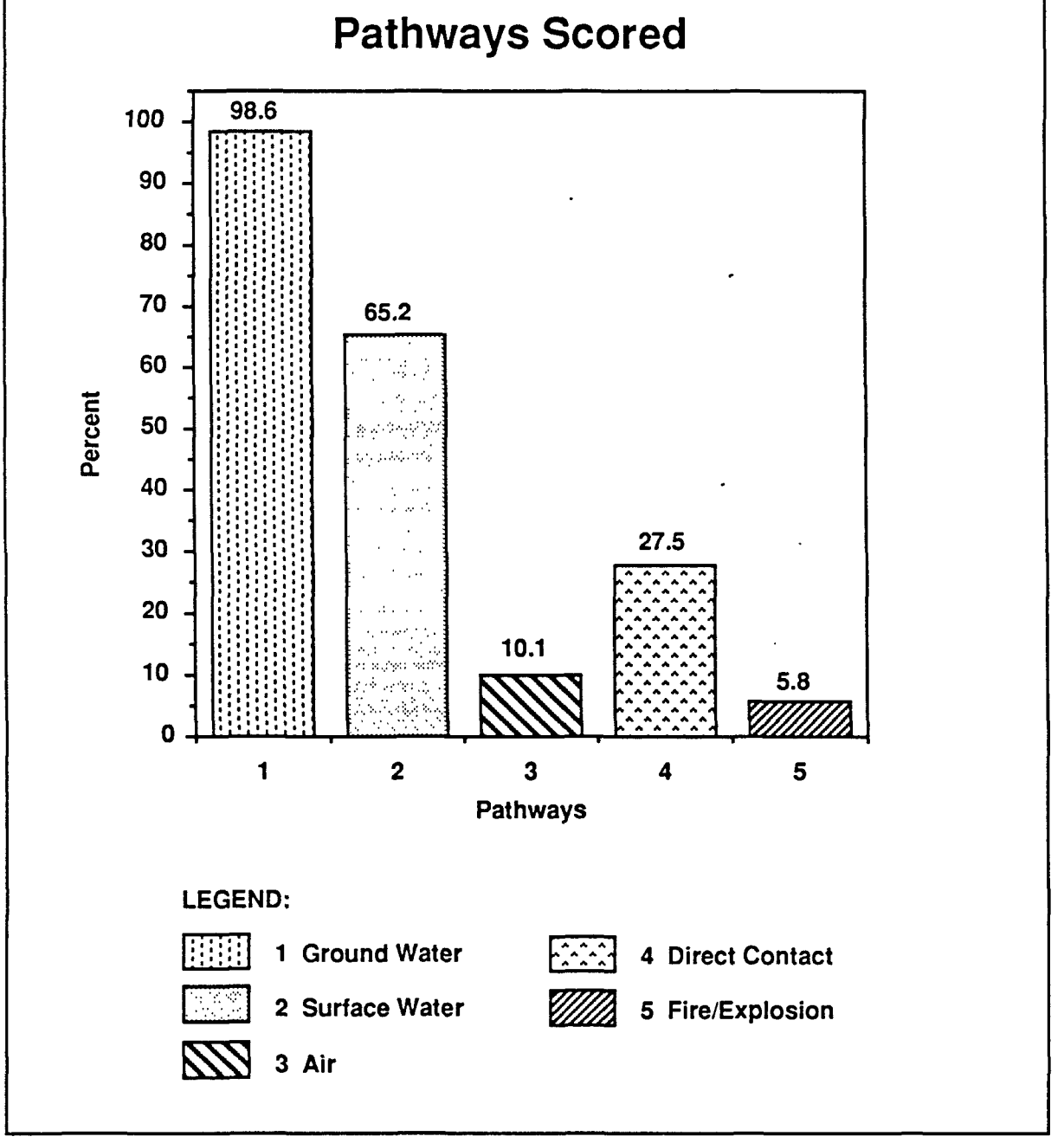
REGION 10



Note: This figure depicts information collected on the NPL Statistics Data Collection Form in the Environmental/Demographic Information Section, Question 3, Observed Releases.

Chart 23

REGION 10

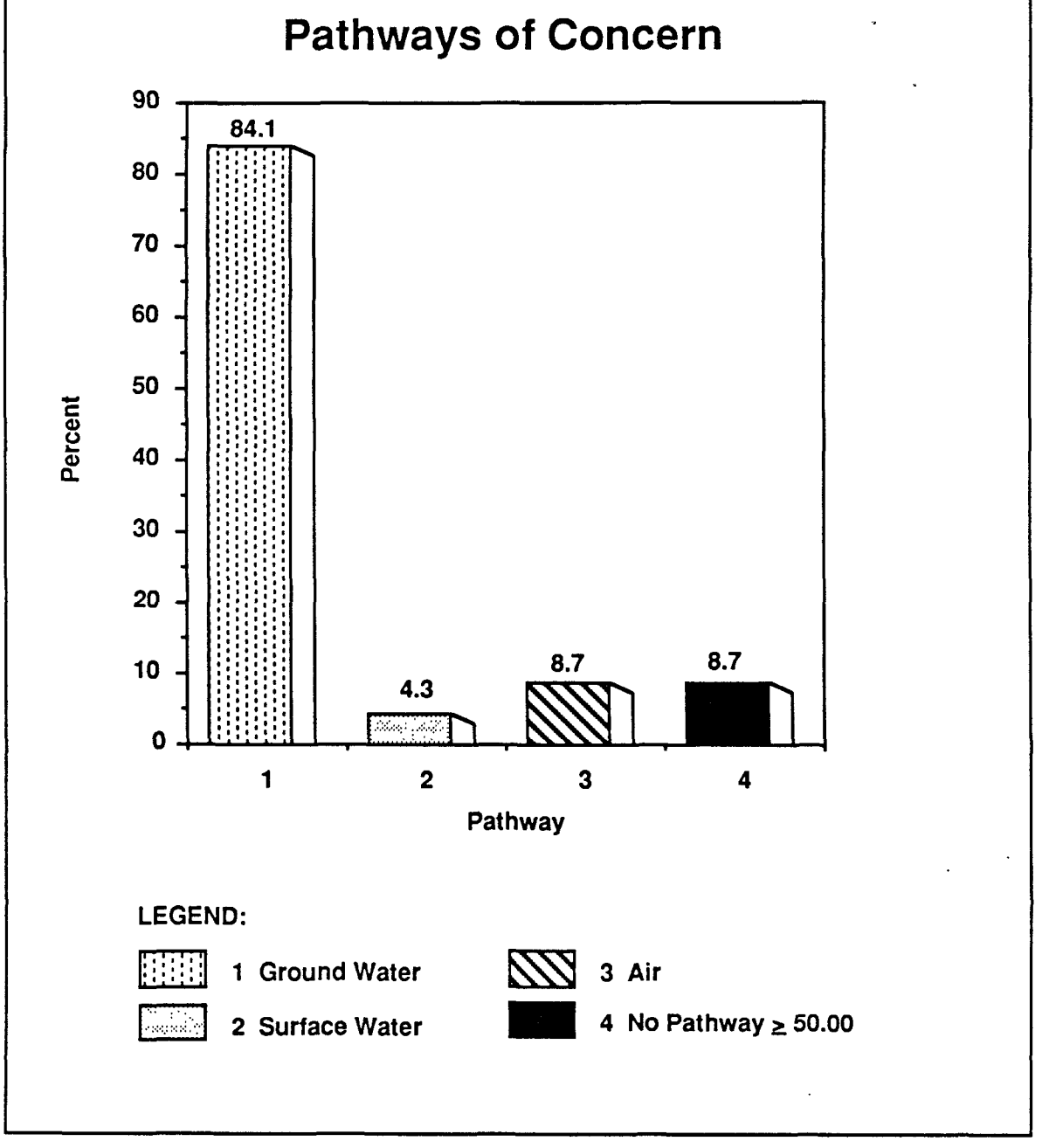


Notes: (1) This figure depicts information collected on the NPL Statistics Data Collection Form in the Environmental/Demographic Information Section, Question 6, Pathways of Concern.

(2) A "Pathway Scored" is defined as any pathway that received a score greater than zero under the HRS scoring package.

Chart 24

REGION 10



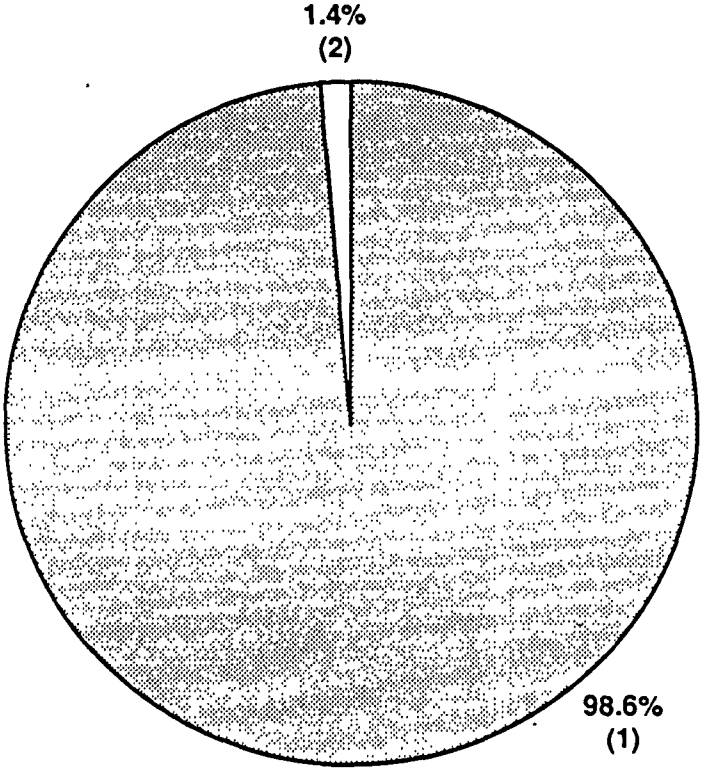
Notes: (1) This figure depicts information collected on the NPL Statistics Data Collection Form in the Environmental/Demographic Information Section, Question 6, Pathways of Concern.

(2) A "Pathway of Concern" is defined as any pathway that received a score of greater than or equal to 50.00. Under the originial HRS, a score of 50.00 on any pathway gives a site score of greater than the 28.50 cutoff for NPL eligibility.

Chart 25

REGION 10

NPL Status



LEGEND:

1 Final

2 Deleted/All Appropriate Response Actions Taken

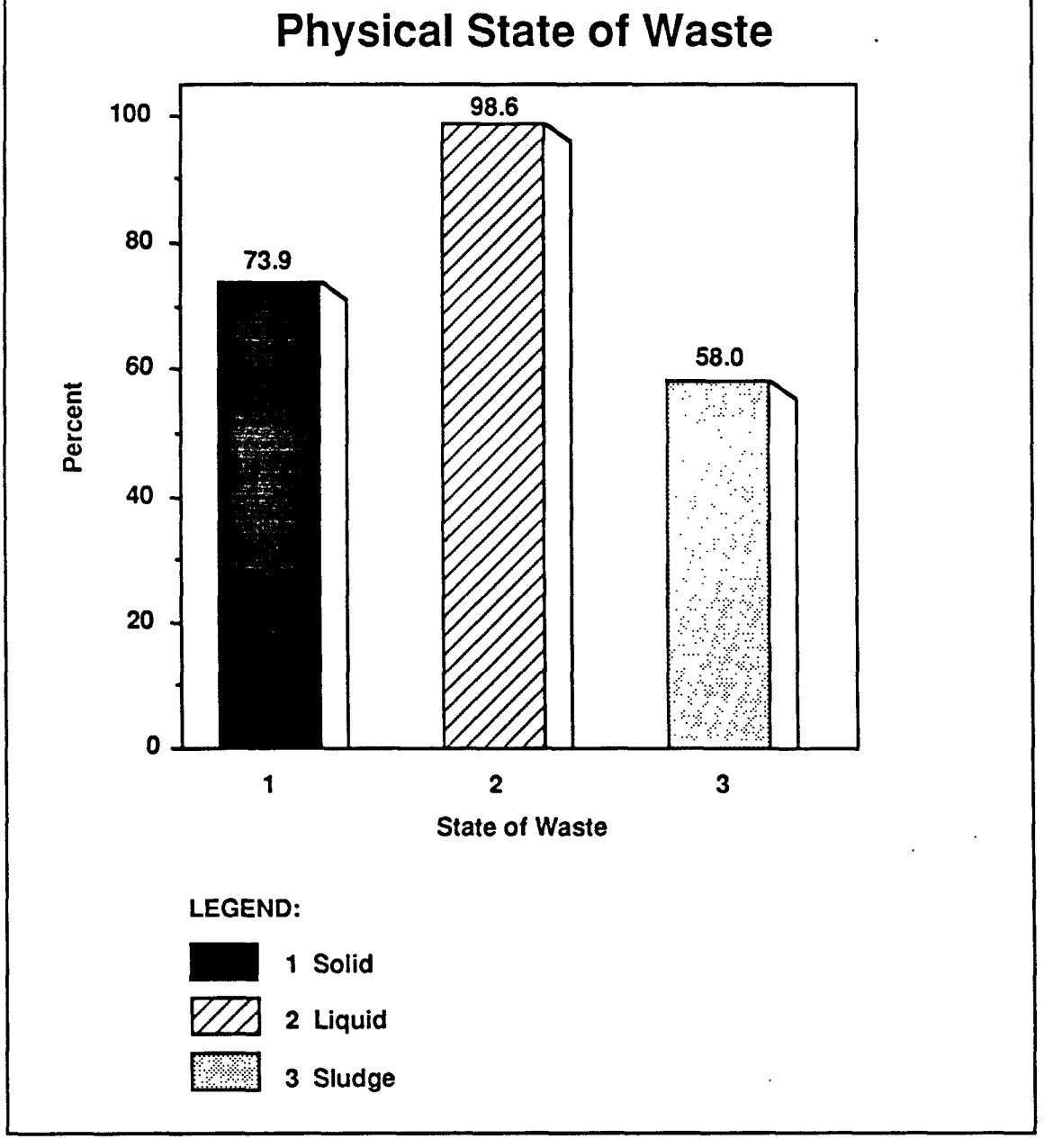
Note: This figure depicts information collected on the NPL Statistics Data Collection Form in the Site Description Section, Question 17, NPL Status.

Chart 26

CHAPTER 7: WASTE DESCRIPTION

- Chart 27: Physical State of Waste
- Chart 28: Predominant Waste Types
- Chart 29: Waste Quantity

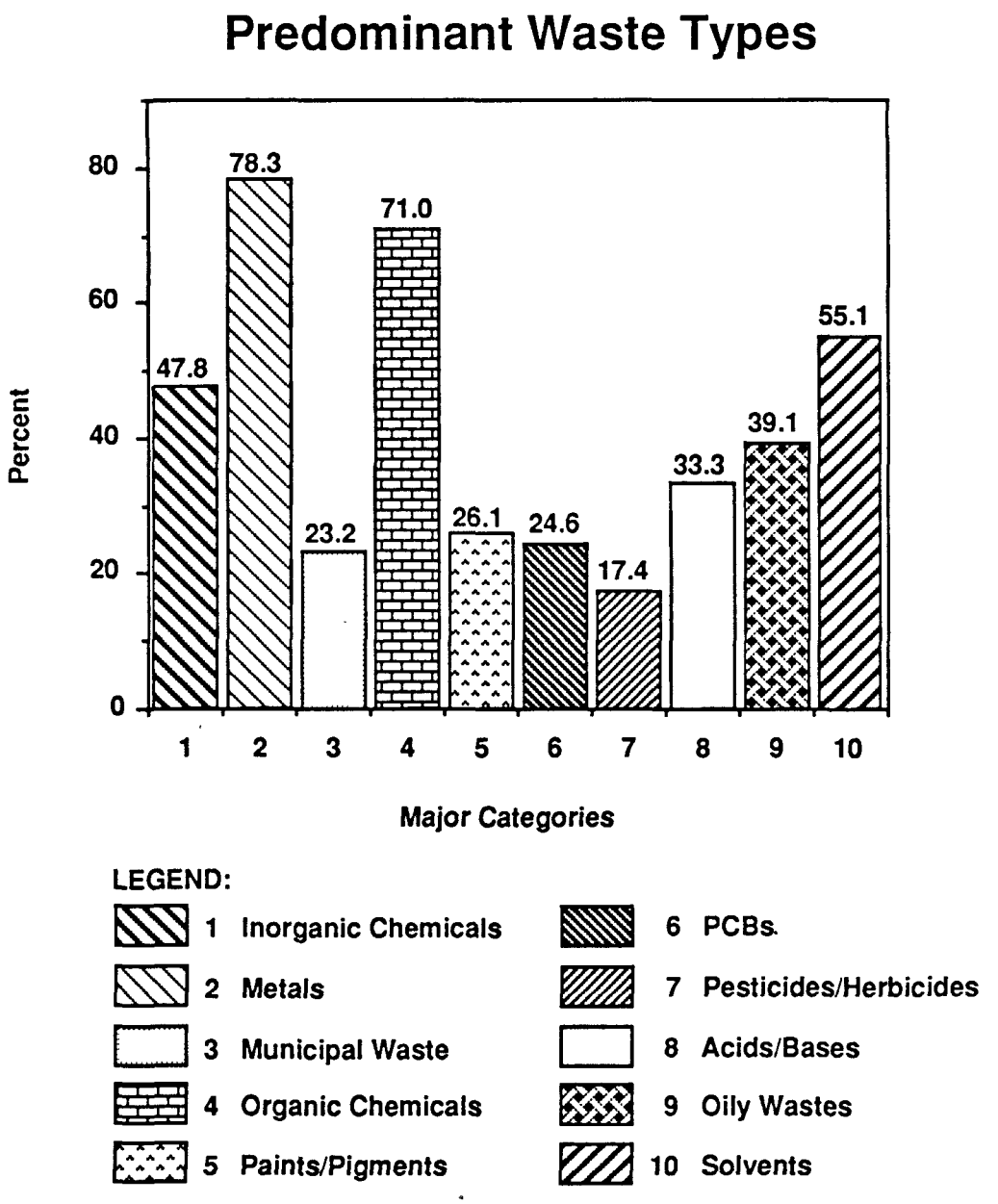
REGION 10



Note: This figure depicts information collected on the NPL Statistics Data Collection Form in the Waste Description Section.

Chart 27

REGION 10

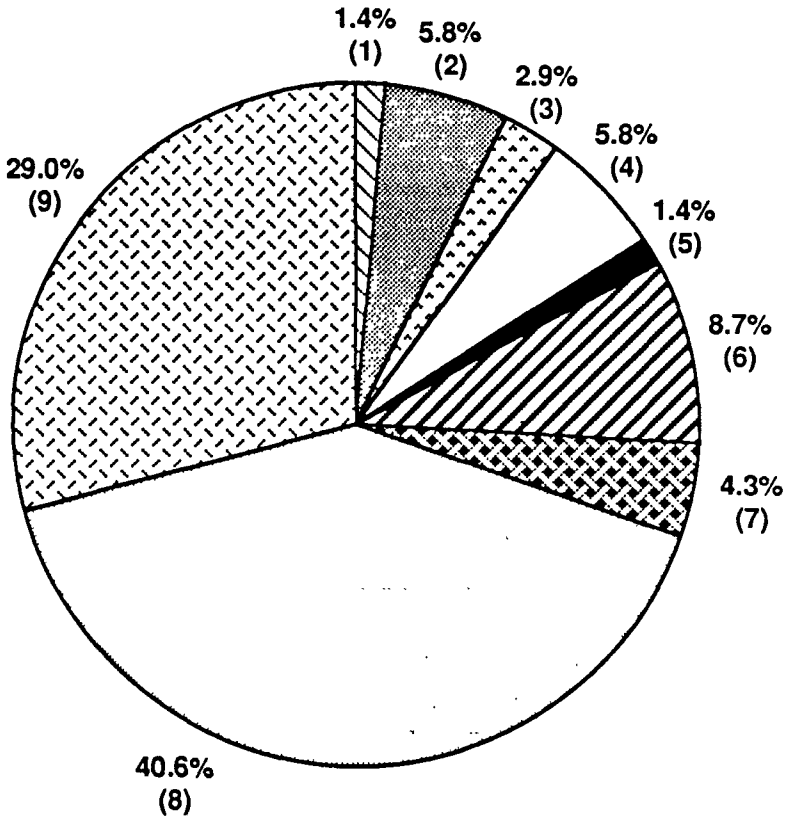


Notes: (1) This figure depicts information collected on the NPL Statistics Data Collection Form in the Waste Description Section.
(2) See Appendix A for a complete listing of "Other" responses.

Chart 28

REGION 10

Waste Quantity



LEGEND:

1 1 - 10 Yd.^{3}
2 >10 - 62 Yd.^{3}
3 >62 - 125 Yd.^{3}
4 >125 - 250 Yd.^{3}
5 >250 - 625 Yd.^{3}
6 >625 - 1250 Yd.^{3}
7 >1250 - 2500 Yd.^{3}
8 >2500 Yd.^{3}
9 Not Specified

Notes: (1) This figure depicts information collected on the NPL Statistics Data Collection Form in the Waste Description Section.
(2) All waste quantity data were converted to cubic yards using the following conversion factors: 1 cubic yard = 1 ton = 4 drums = 200 gallons.

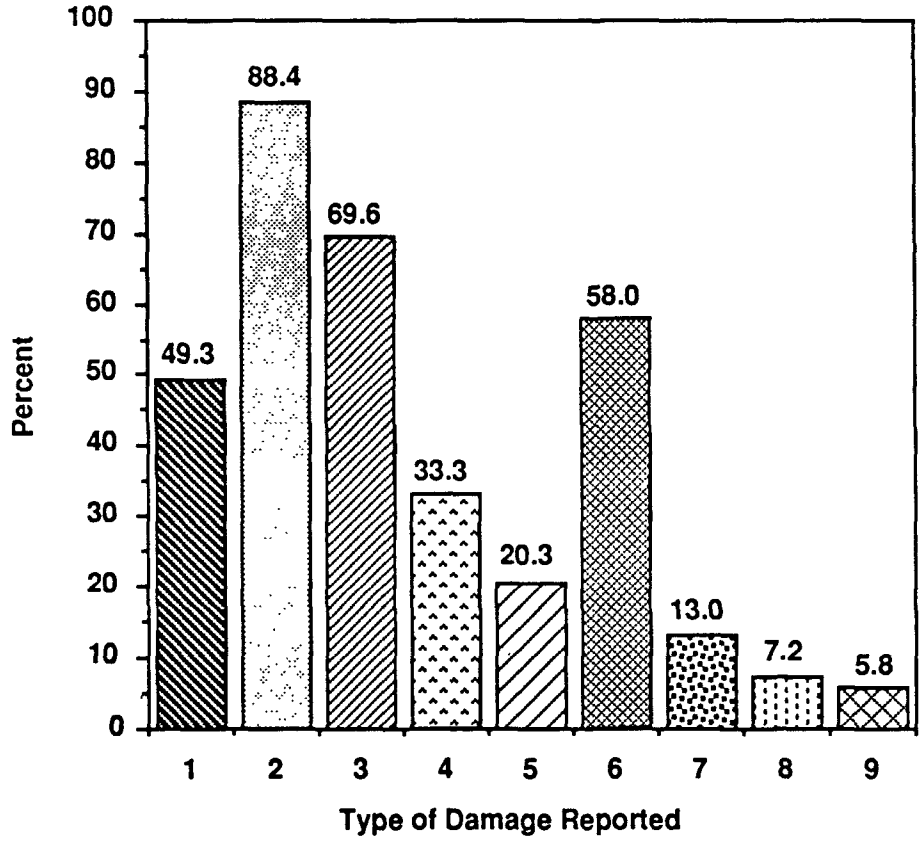
Chart 29

CHAPTER 8: ENVIRONMENTAL INFORMATION

- Chart 30: Type of Environmental Damage Reported
- Chart 31: Depth to Uppermost Used Aquifer
- Chart 32: Surface Water Adjacent to/Draining Site
- Chart 33: Presence of Sensitive Environment Within 3 Miles
- Chart 34: Type of Sensitive Environment Within 3 Miles

REGION 10

Type of Environmental Damage Reported



LEGEND:

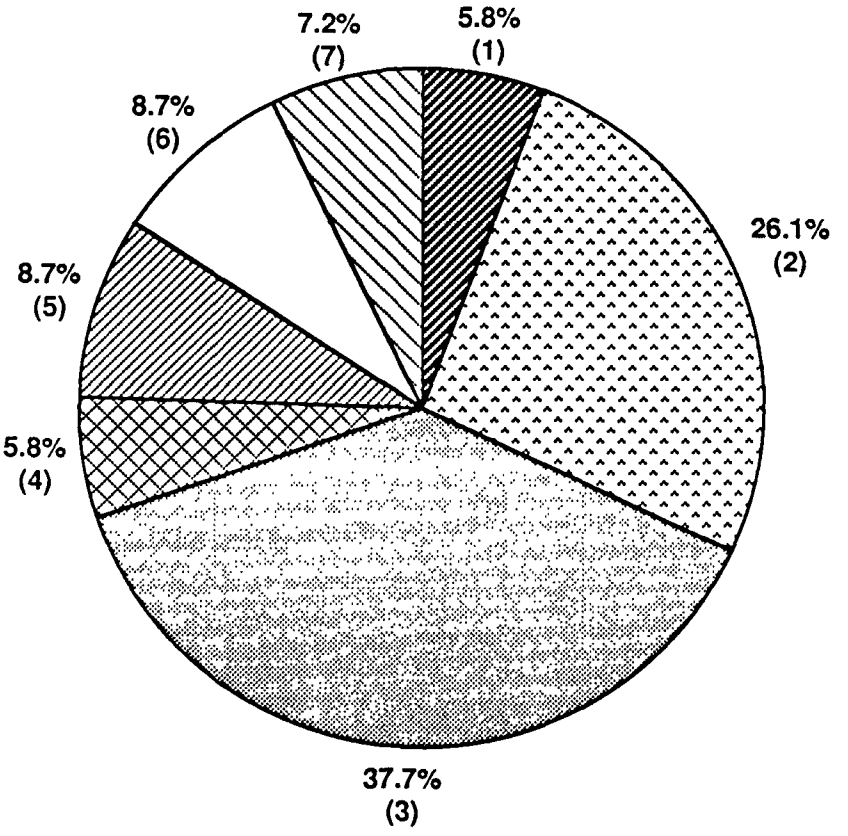
1 Surface Water Impacts
2 Ground Water Impacts
3 Drinking Water Impacts
4 Air Impacts
5 Human Health Impacts
6 Soil Impacts
7 Flora Impacts
8 Fauna Impacts
9 Visual Impacts

Note: This figure depicts information collected on the NPL Statistics Data Collection Form in the Environmental/Demographic Information Section, Question 2, Actual Environmental Damage Reported, Potential Population Affected.

Chart 30

REGION 10

Depth to Uppermost Used Aquifer



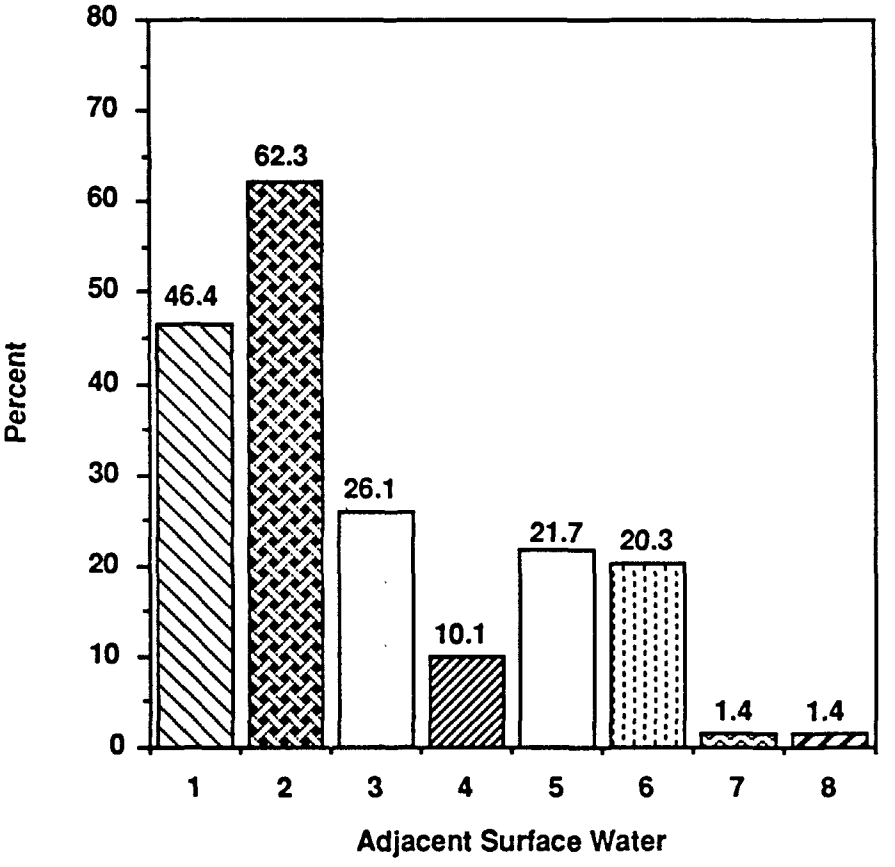
Notes: (1) This figure depicts information collected on the NPL Statistics Data Collection Form in the Environmental/Demographic Information Section, Question 4d, Depth to Uppermost Used Aquifer.

(2) A default value of 1 foot was used for sites where waste was directly deposited below the water level of the uppermost used aquifer.

Chart 31

REGION 10

Surface Water Adjacent to/Draining Site



LEGEND:

1 Stream	5 Wetland
2 River	6 Bay
3 Lake	7 Ocean
4 Pond	8 Not Specified

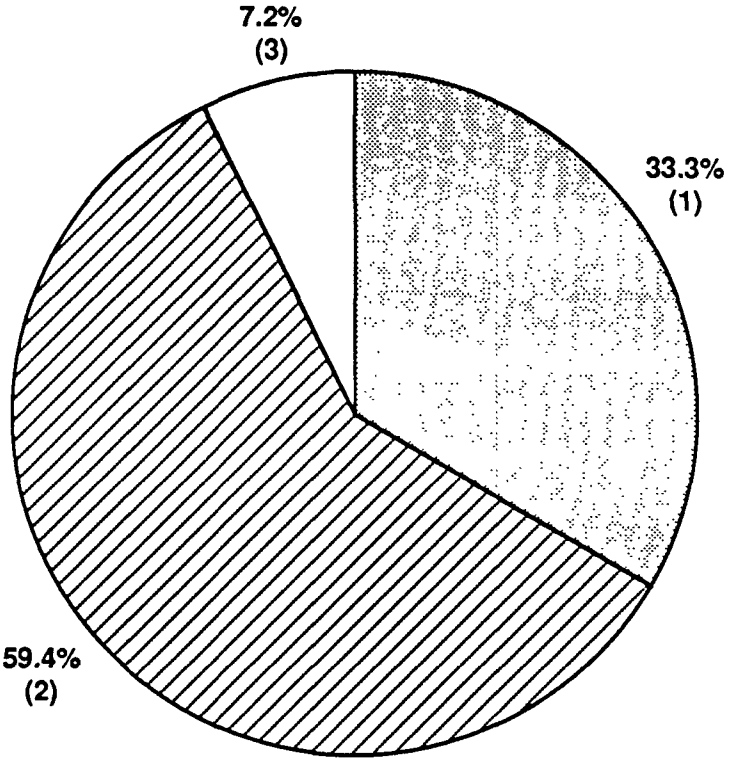
Not Shown - None (0.0%)

Notes: (1) This figure depicts information collected on the NPL Statistics Data Collection Form in the Environmental/Demographic Information Section, Question 4e, Surface Water Adjacent to/Draining Site.
(2) See Appendix A for a complete listing of "Other" responses.
(3) Includes only those surface water bodies that could potentially be affected by overland runoff from the site.

Chart 32

REGION 10

Presence of Sensitive Environment Within 3 Miles

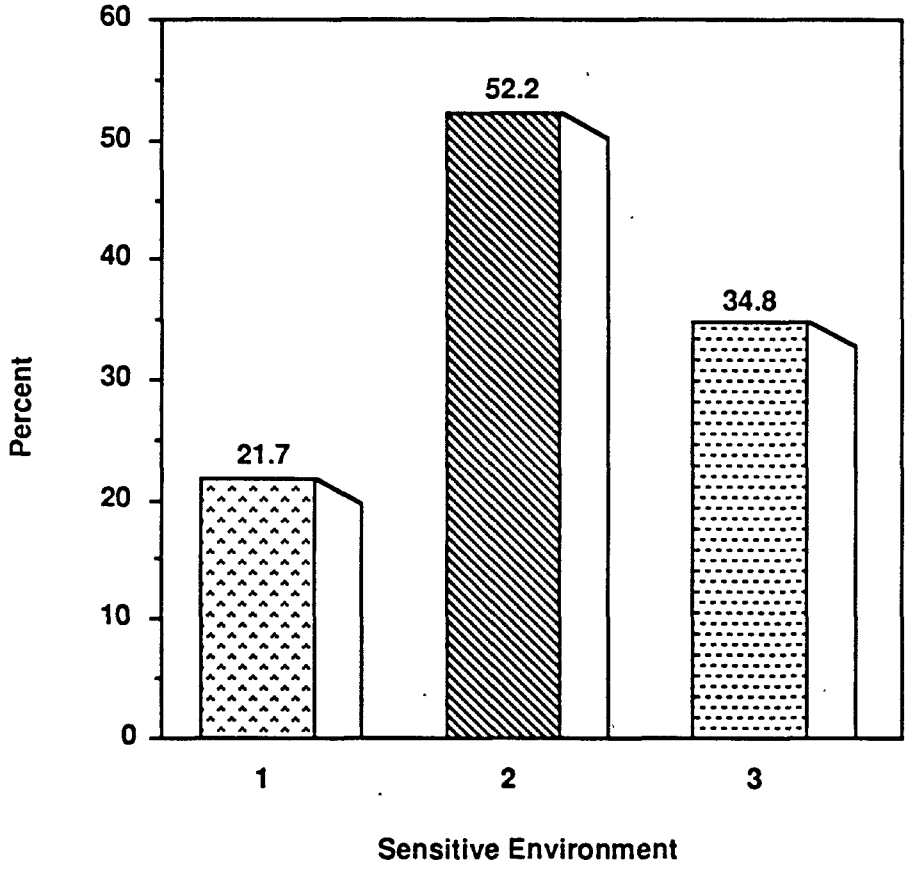


Note: This figure depicts information collected on the NPL Statistics Data Collection Form in the Environmental/Demographic Information Section, Question 5, Ecological Information.

Chart 33

REGION 10

Type of Sensitive Environment Within 3 Miles



LEGEND:

1 Estuary

2 100 Year Floodplain

3 Critical Habitat

Not Shown - Barrier Island/Coastal High Hazard Area (0.0%)

Notes: (1) This figure depicts information collected on the NPL Statistics Data Collection Form in the Environmental/Demographic Information Section, Question 5, Ecological Information.

(2) Percentages are based on sites located within 3 miles of a sensitive environment only (33.3% of all Region 10 NPL sites).

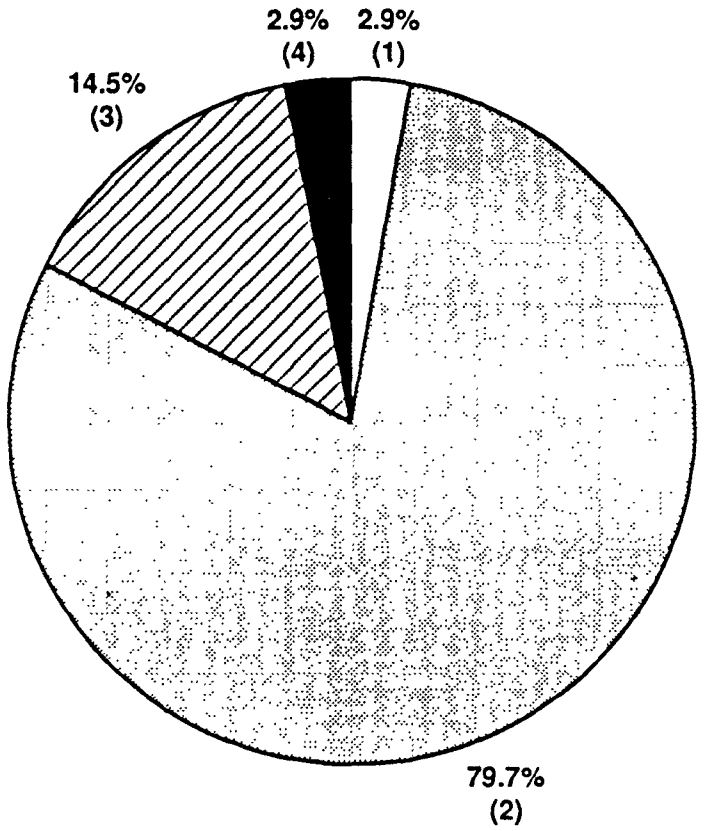
Chart 34

CHAPTER 9: WATER USE INFORMATION

- Chart 35: Withdrawals for Drinking Water Supply Within 3 Miles: Source
- Chart 36: Withdrawals for Drinking Water Supply Within 3 Miles: Population Served
- Chart 37: Withdrawals for Drinking Water Supply Within 3 Miles: Type
- Chart 38: Local Ground Water Uses Other Than Drinking Water
- Chart 39: Operable Wells Within 1 Mile
- Chart 40: Operable Wells Within 3 Miles
- Chart 41: Number of Wells Within 1 Mile
- Chart 42: Number of Wells Within 3 Miles
- Chart 43: Distance to Nearest Well
- Chart 44: Local Surface Water Uses Other Than Drinking Water
- Chart 45: Distance to Nearest Downstream Intake

REGION 10

Withdrawals for Drinking Water Supply Within 3 Miles: Source

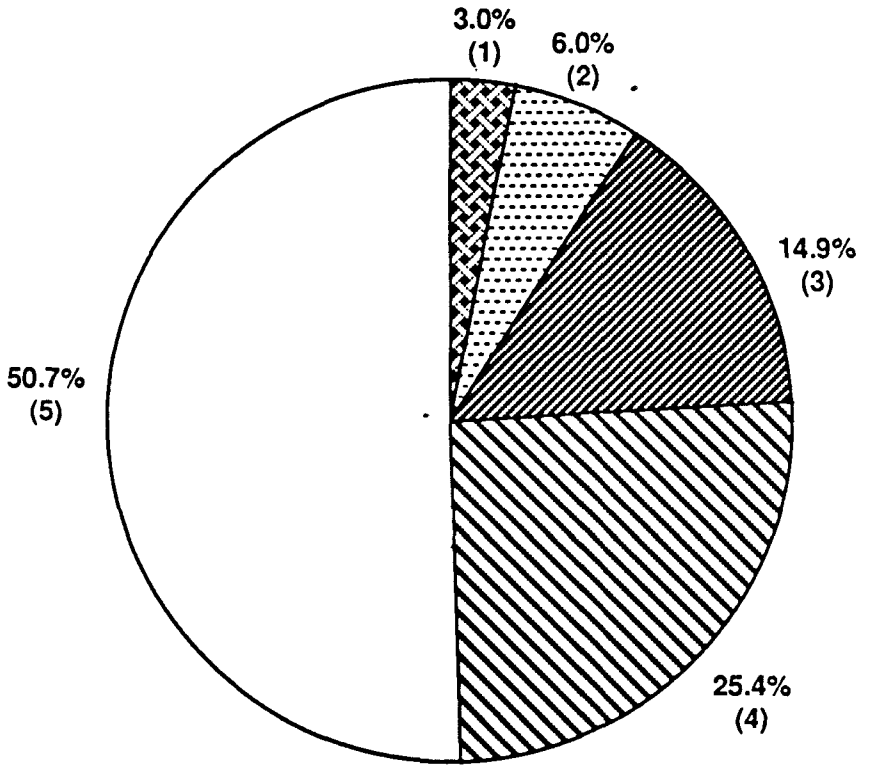


Note: This figure depicts information collected on the NPL Statistics Data Collection Form in the Environmental/Demographic Information Section, Question 4a, Local Drinking Water Supply Source.

Chart 35

REGION 10

Withdrawals for Drinking Water Supply Within 3 Miles: Population Served



LEGEND:

1 1 - 100

2 101 - 1,000

3 1,001 - 3,000

4 3,001 - 10,000

5 >10,000

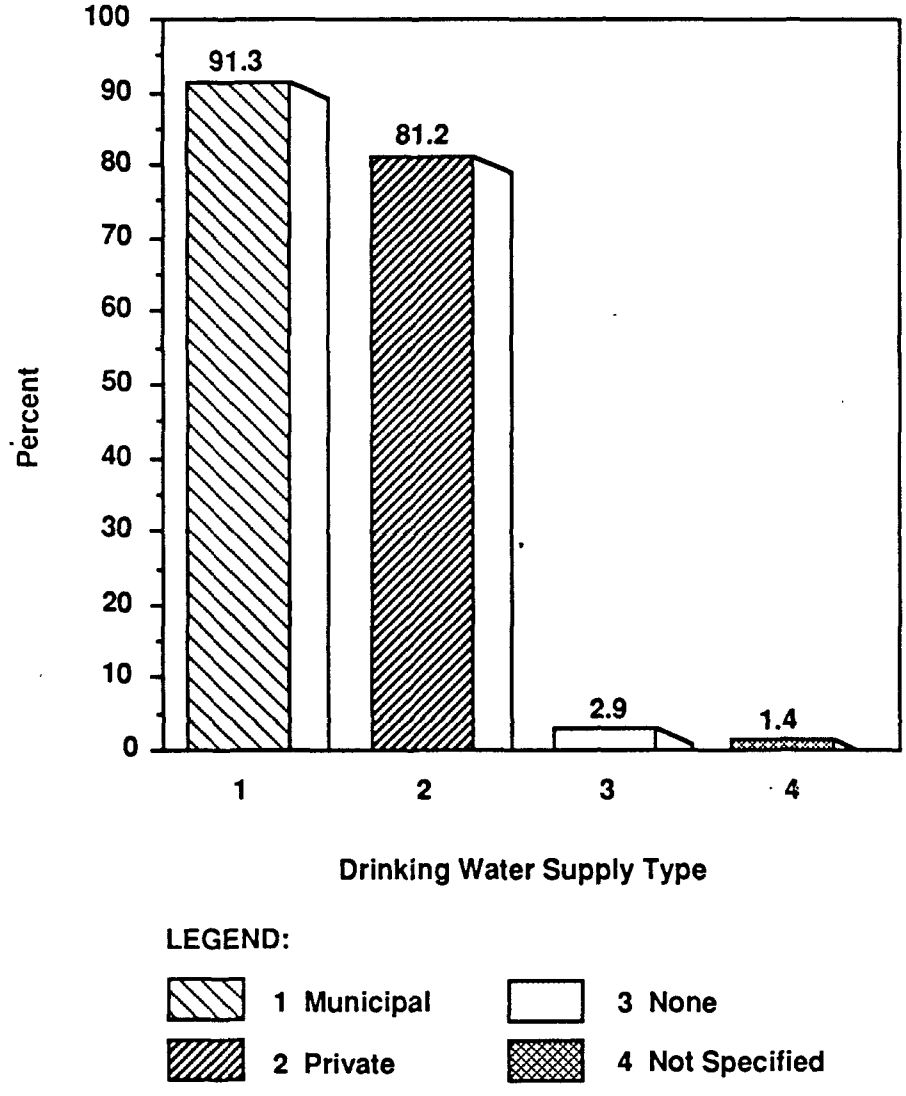
Not Shown - Not Specified (0.0%)

Notes: (1) This figure depicts information collected on the NPL Statistics Data Collection Form in the Environmental/Demographic Information Section, Question 4b, Total Population Served.
(2) Percentages are based on sites that have withdrawals for drinking water within 3 miles only (97.1% of all Region 10 NPL sites).

Chart 36

REGION 10

Withdrawals for Drinking Water Supply Within 3 Miles: Type

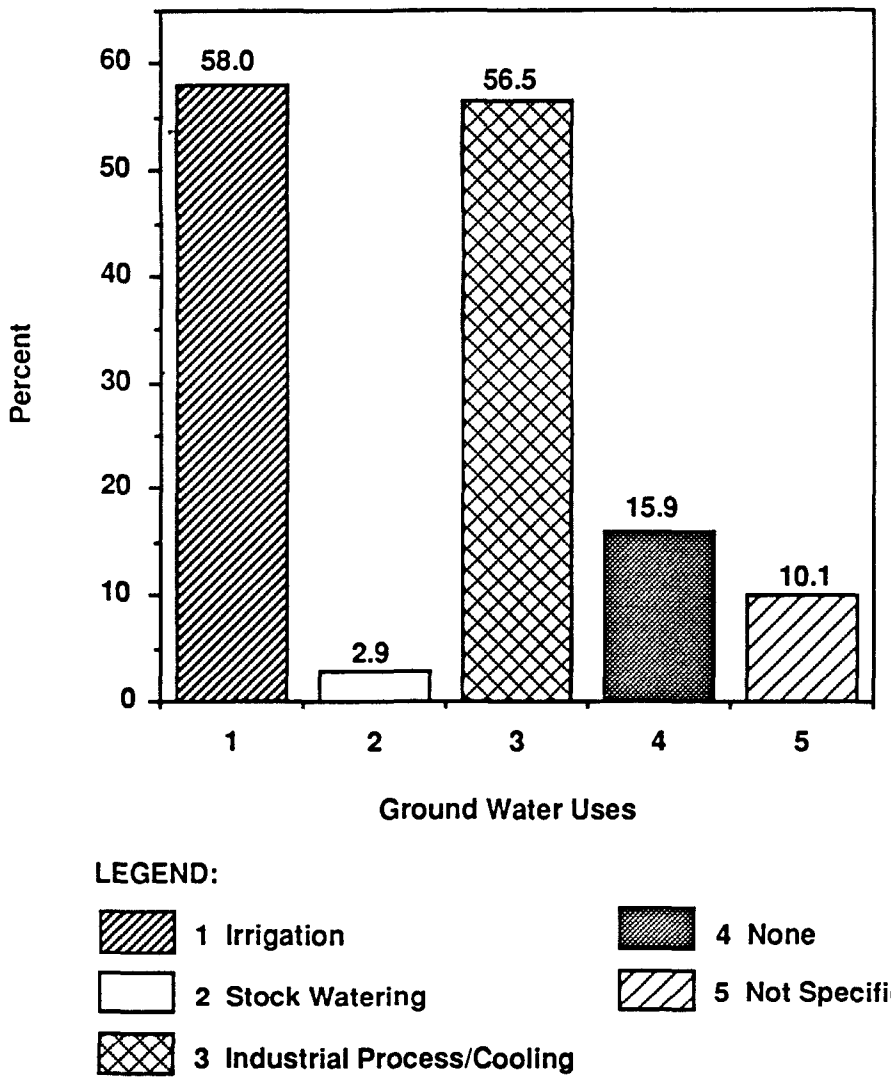


Note: This figure depicts information collected on the NPL Statistics Data Collection Form in the Environmental/Demographic Information Section, Question 4c, Drinking Water Supply System Type.

Chart 37

REGION 10

Local Ground Water Uses Other Than Drinking Water



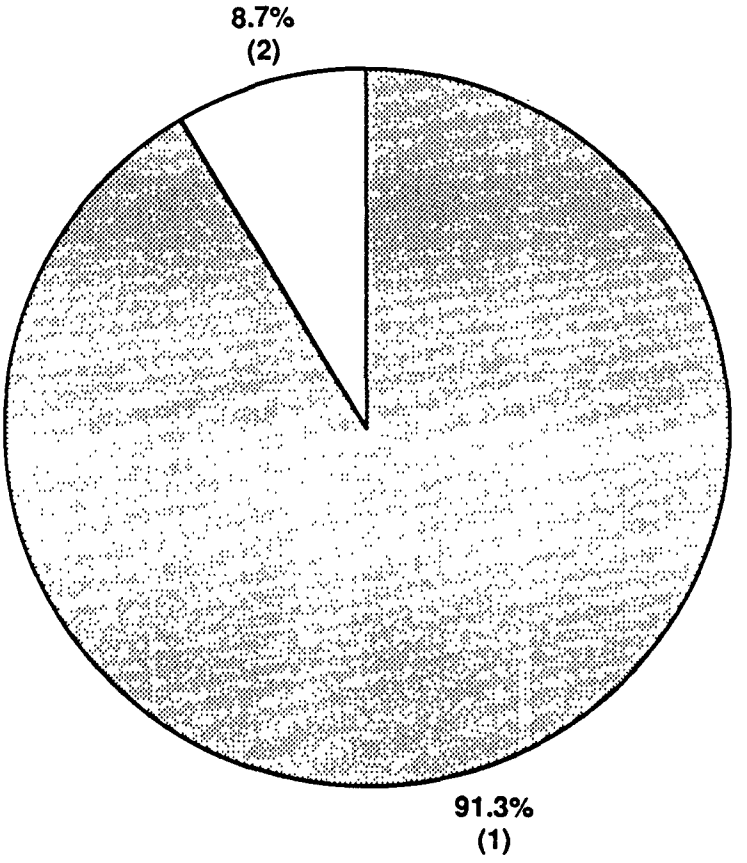
Notes: (1) This figure depicts information collected on the NPL Statistics Data Collection Form in the Environmental/Demographic Information Section, Question 4d, Other Local Ground Water Uses.

(2) See Appendix A for a complete listing of "Other" responses.

Chart 38

REGION 10

Operable Wells Within 1 Mile

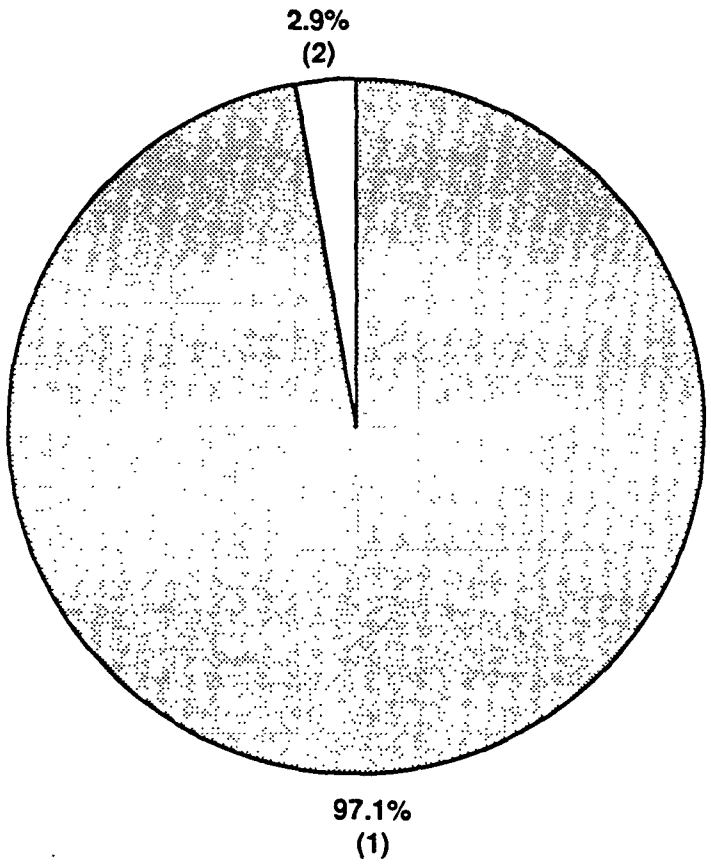


Notes: (1) This figure depicts information collected on the NPL Statistics Data Collection Form in the Environmental/Demographic Information Section, Question 4d, Wells Within 1 Mile.
(2) Includes all operable water wells, except monitoring wells.

Chart 39

REGION 10

Operable Wells Within 3 Miles

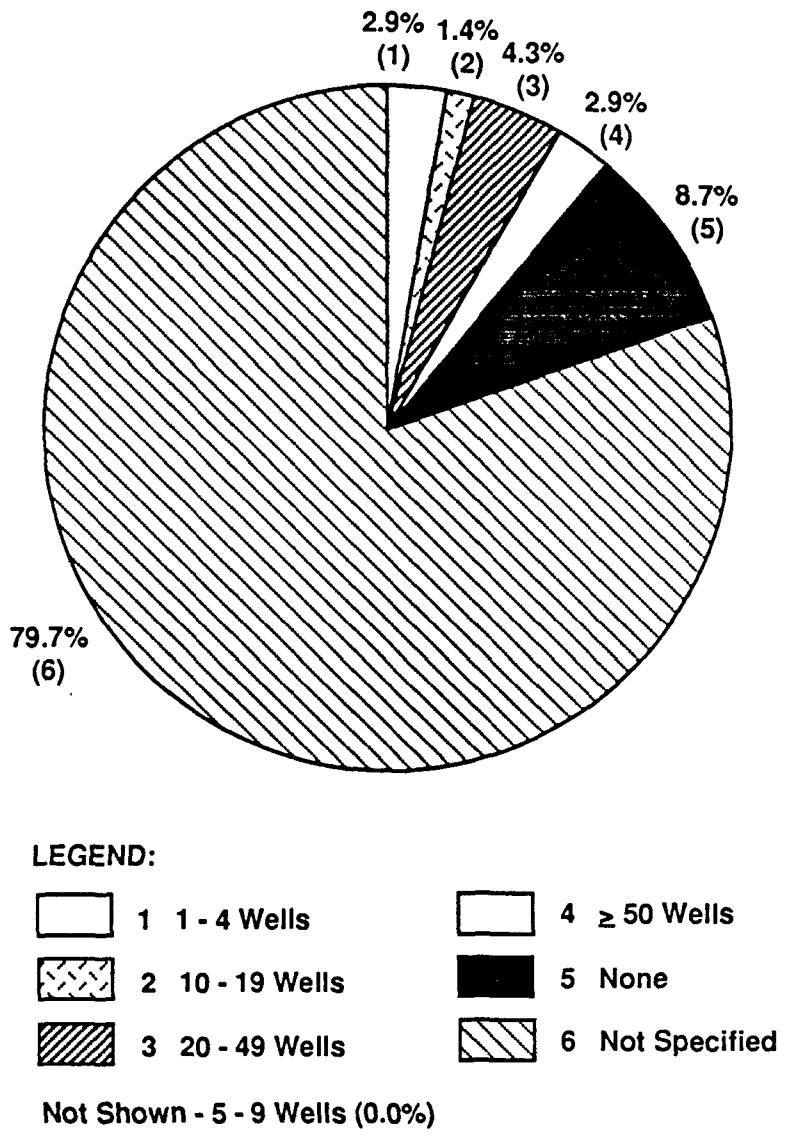


Notes: (1) This figure depicts information collected on the NPL Statistics Data Collection Form in the Environmental/Demographic Information Section, Question 4d, Wells Within 3 Miles.
(2) Includes all operable water wells, except monitoring wells.

Chart 40

REGION 10

Number of Wells Within 1 Mile

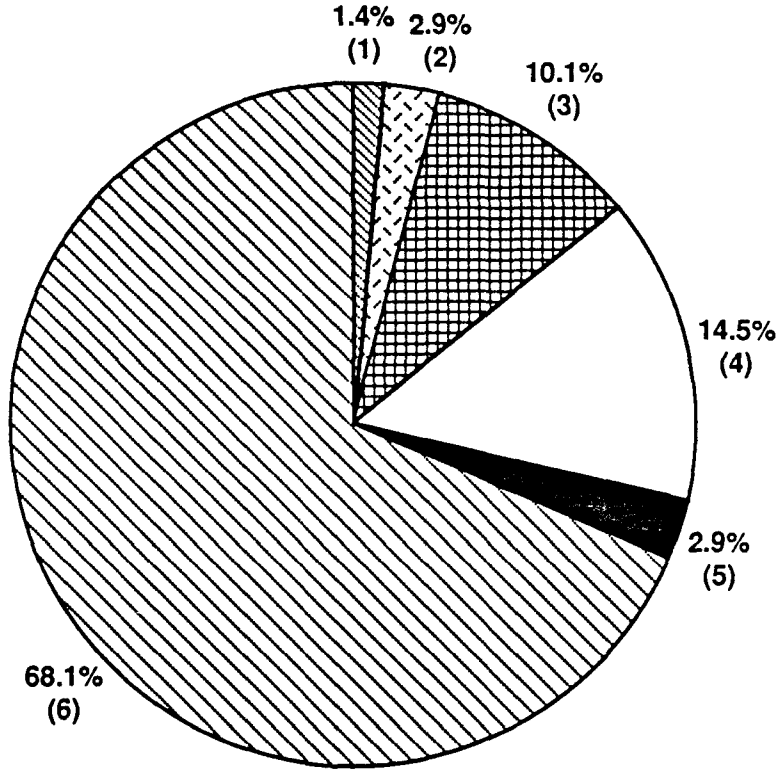


Notes: (1) This figure depicts information collected on the NPL Statistics Data Collection Form in the *Environmental/Demographic Information Section, Question 4d, Wells Within 1 Mile.*
(2) Includes all operable water wells, except monitoring wells.

Chart 41

REGION 10

Number of Wells Within 3 Miles



LEGEND:

1 5 - 9 Wells	4 ≥ 50 Wells
2 10 - 19 Wells	5 None
3 20 - 49 Wells	6 Not Specified

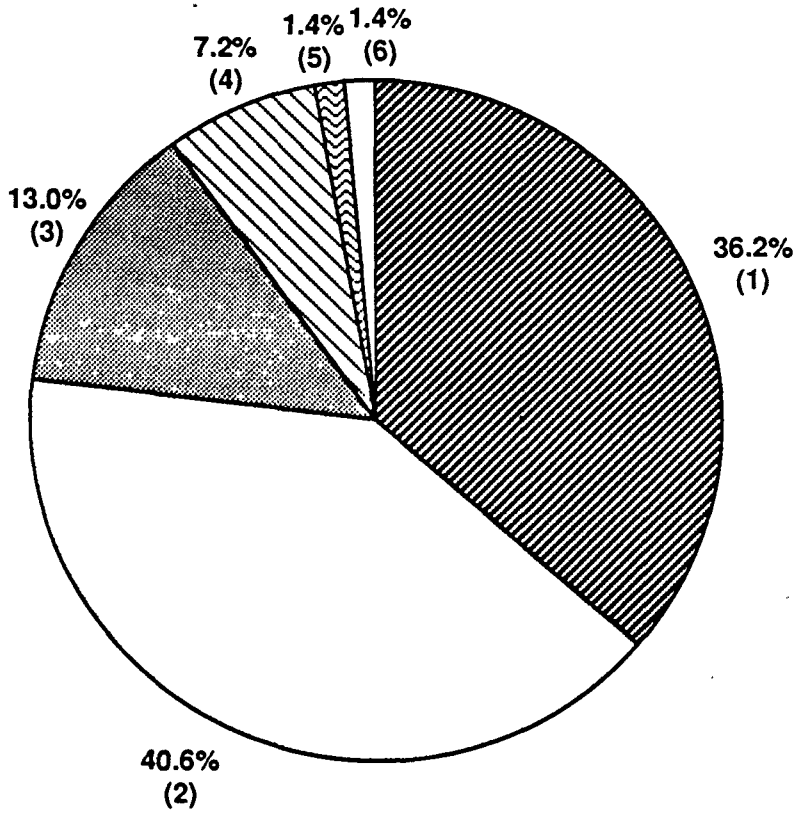
Not Shown - 1 - 4 Wells (0.0%)

Notes: (1) This figure depicts information collected on the NPL Statistics Data Collection Form in the Environmental/Demographic Information Section, Question 4d, Wells Within 3 Miles.
(2) Includes all operable water wells, except monitoring wells.

Chart 42

REGION 10

Distance to Nearest Well

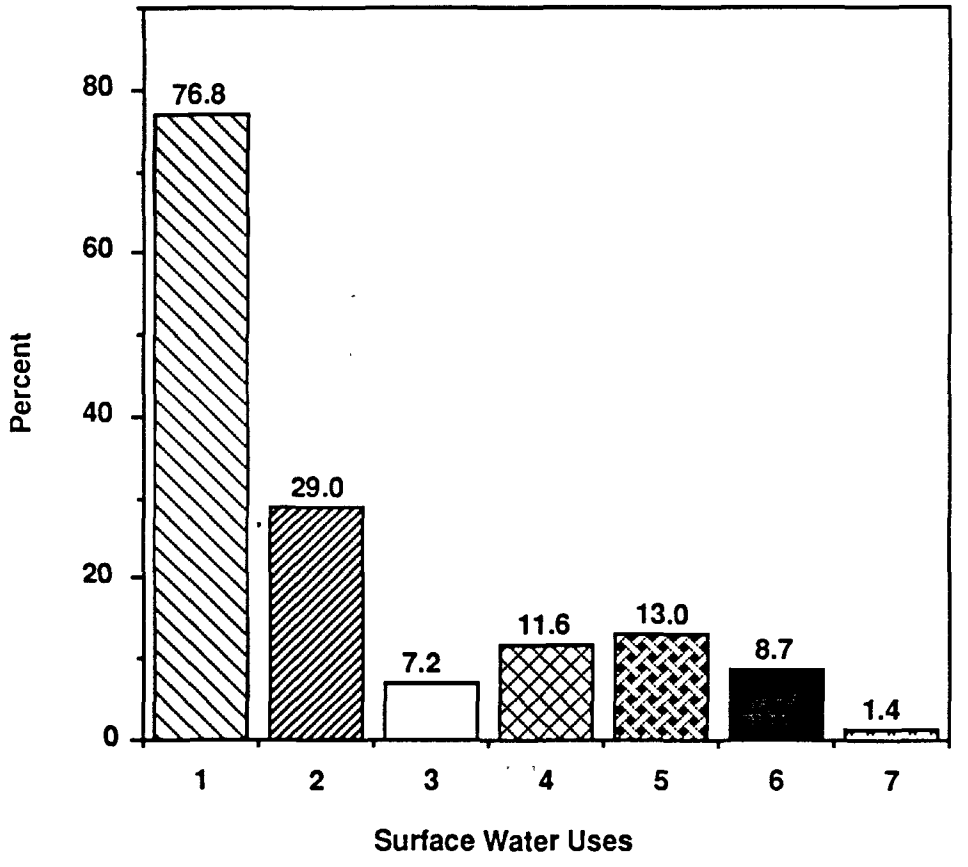


Notes: (1) This figure depicts information collected on the NPL Statistics Data Collection Form in the Environmental/Demographic Information Section, Question 4d, Distance to Nearest Well.
(2) Includes all operable water wells, except monitoring wells.
(3) A default value of 10 feet was used for those sites with on-site wells.

Chart 43

REGION 10

Local Surface Water Uses Other Than Drinking Water



LEGEND:

- 1 Recreation
- 2 Irrigation
- 3 Stock Watering
- 4 Industrial Process/Cooling
- 5 Commercial Fishery
- 6 Not Specified
- 7 None

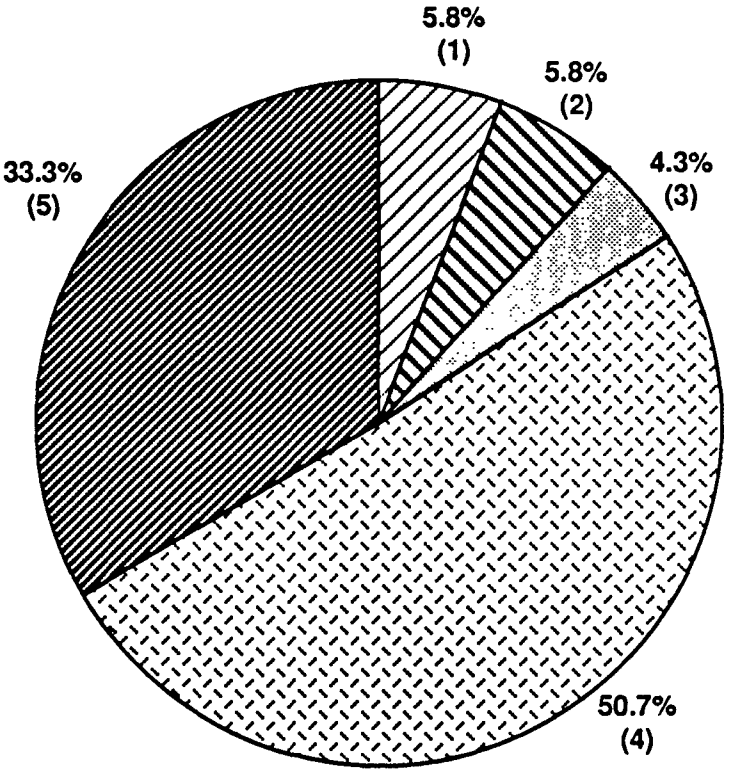
Notes: (1) *This figure depicts information collected on the NPL Statistics Data Collection Form in the* Environmental/Demographic Information Section, Question 4e, Other Local Surface Water Uses.

(2) See Appendix A for a complete listing of "Other" responses.

Chart 44

REGION 10

Distance to Nearest Downstream Intake



LEGEND:

1 >2,000 Feet - 1 Mile
2 >1 Mile - 2 Miles
3 >2 Miles - 3 Miles
4 None Within 3 Miles
5 Not Specified

Not Shown - ≤2000 Feet (0.0%)

Notes: (1) This figure depicts information collected on the NPL Statistics Data Collection Form in the Environmental/Demographic Information Section, Question 4e, Distance to Nearest Downstream Intake.

(2) Includes all operable surface water intakes, not just those used for drinking water supply.

Chart 45

APPENDIX A: RESPONSES FROM "OTHER" CATEGORY

RESPONSES FROM "OTHER" CATEGORY

Chart	Title	Response	Number of Responses
3	Predominant Land Uses in Site Vicinity	Wetlands Airport Park Railroad	5 4 2 1
4	Treatment, Storage, or Disposal Activities Occurring at Site	Burn pit/area Drain/leach field Dry well Septic tank Acid sand pit Cribs Drip/wash pads Waste treatment	7 7 4 3 1 1 1 1
7	Owner/Operator of Site at Time of HRS Score	Widespread sediment contamination Contaminated ground water plume	2 1
8	Owner/Operator of Site at Time of Contamination	Widespread sediment contamination Contaminated ground water plume	2 1
10	Industry Responsible for Generating Waste: Major Categories	Government services Laundromat Pesticide formulator Railroad Waste disposal services	2 1 1 1 1
28	Predominant Waste Types	Asbestos Laboratory/hospital waste Radioactive waste Smelting waste Mining waste Explosives Contaminated soil/sediment Fly and bottom ash Batteries and associated wastes Dioxin/PCP Creosote Fuels and propellants	10 7 7 7 6 5 4 4 2 2 1 1
32	Surface Water Adjacent to/Draining Site	Spring Drainage ditch Intermittent stream Canal Reservoir	6 3 3 2 1

RESPONSES FROM "OTHER" CATEGORY (continued)

Chart	Title	Response	Number of Responses
38	Local Ground Water Uses Other Than Drinking Water	Commercial	11
44	Local Surface Water Uses Other Than Drinking Water	Commercial transportation Electric power production	1 1

APPENDIX B: SITES REVIEWED

SITES REVIEWED

This Appendix lists all Region 10 sites that were listed as "final" on the NPL as of February 1991, except where noted.

Region 10
(69 Sites)

Alaska (AK): 6

Alaska Battery Enterprises
Arctic Surplus
Eielson Air Force Base
Elmendorf Air Force Base
Fort Wainwright
Standard Steel & Metals Salvage Yard (USDOT)

Idaho (ID): 9

Arrcom (Drexler Enterprises)
Bunker Hill Mining & Metallurgical
Eastern Michaud Flats Contamination
Idaho National Engineering Laboratory
Kerr-McGee Chemical Corp. (Soda Springs Plant)
Monsanto Chemical Co. (Soda Springs Plant)
Mountain Home Air Force Base
Pacific Hide & Fur Recycling Co.
Union Pacific Railroad Co.

Oregon (OR): 8

Allied Plating, Inc.
Gould, Inc.
Joseph Forest Products
Martin-Marietta Aluminum Co.
Teledyne Wah Chang
Umatilla Army Depot (Lagoons)
Union Pacific Railroad Co. Tie Treating Plant
United Chrome Products, Inc.

Washington (WA): 46

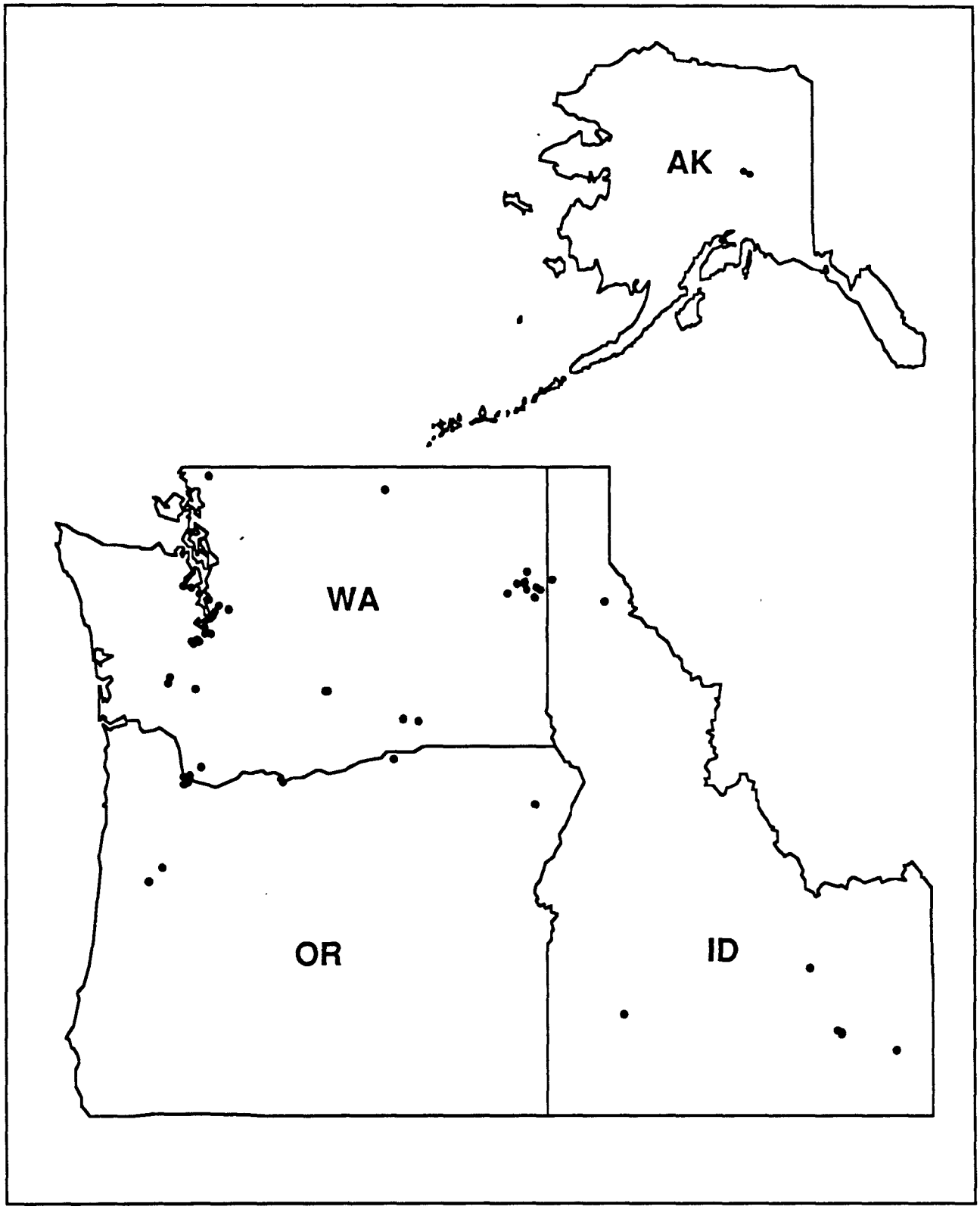
ALCOA (Vancouver Smelter)
American Crossarm & Conduit Co.
American Lake Gardens
Bangor Naval Submarine Base
Bangor Ordnance Disposal
Bonneville Power Administration Ross Complex (USDOE)
Centralia Municipal Landfill
Colbert Landfill
Commencement Bay, Near Shore/Tide Flats
Commencement Bay, South Tacoma Channel
Fairchild Air Force Base (4 Waste Areas)
FMC Corp. (Yakima Pit)
Fort Lewis (Landfill No. 5)
Fort Lewis Logistics Center
Frontier Hard Chrome, Inc.
General Electric Co. (Spokane Shop)
Greenacres Landfill
Hanford 100-Area
Hanford 1100-Area
Hanford 200-Area
Hanford 300-Area
Harbor Island (Lead)
Hidden Valley Landfill (Thun Field)
Kaiser Aluminum Mead Works
Lakewood Site
McChord Air Force Base (Wash Rack/Treatment Area)
Mica Landfill
Midway Landfill
Naval Air Station, Whidbey Island (Ault Field)
Naval Air Station, Whidbey Island (Seaplane Base)

Naval Undersea Warfare Engineering Station (4 Waste Areas)
North Market Street
Northside Landfill
Northwest Transformer
Northwest Transformer (South Harkness Street)
Old Inland Pit
Pacific Car & Foundry Co.
Pasco Sanitary Landfill
Pesticide Lab (Yakima)
Queen City Farms
Seattle Municipal Landfill (Kent Highlands)
Silver Mountain Mine
Toftdahl Drums*
Western Processing Co., Inc.
Wyckoff Co./Eagle Harbor
Yakima Plating Co.

* Deleted

APPENDIX C: REGION 10 NPL MAP

REGION 10 NPL SITES



Note: Because of the proximity of some NPL sites, dots may represent more than one site.