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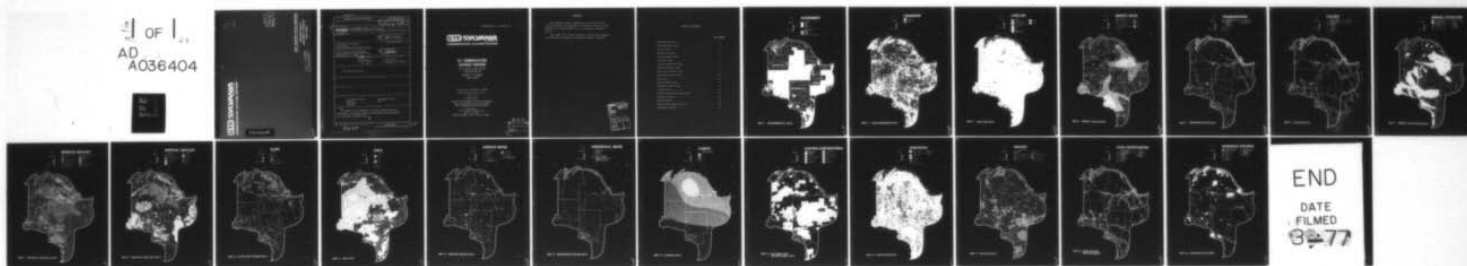
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ELF COMMUNICATIONS SEAFARER PROGRAM--SITE SURVEY. MICHIGAN REGI--ETC(11)
APR 76

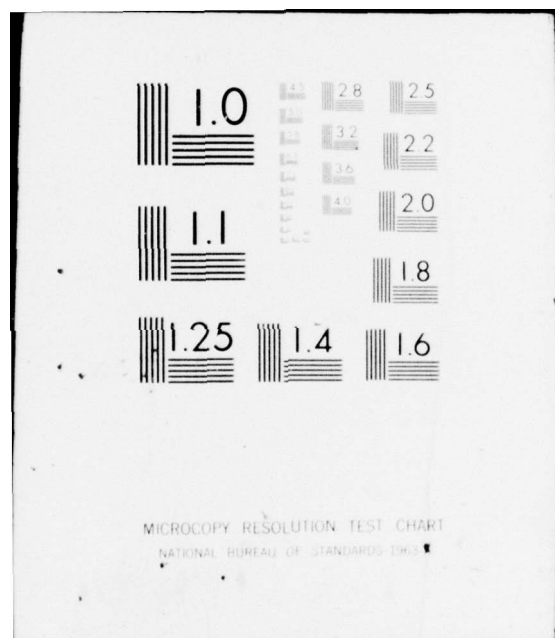
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GTE SYLVANIA
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SITE SURVEY FINAL REPORT

Michigan Region
Appendix to Summary
(Data Maps)

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(6) ELF Communications Seafarer Program -- Site Survey. Final Report , Michigan Region, Appendix to Summary (Data Maps).		
7. AUTHOR(s)	6. PERFORMING ORG. REPORT NUMBER	
	8. CONTRACT OR GRANT NUMBER(s)	
	(15) N00039-75-C-0309	
9. PERFORMING ORGANIZATION NAME AND ADDRESS	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS	
GTE Sylvania Incorporated 189 B Street Needham Heights, Massachusetts 02194		
11. CONTROLLING OFFICE NAME AND ADDRESS	12. REPORT DATE	
Naval Electronic Systems Command Special Communications Project Office Washington, D. C. 20360	(11) April 1976	
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)	13. NUMBER OF PAGES	
(12) <i>46p.</i>	19	
	15. SECURITY CLASS. (of this report)	
	Unclassified	
	15a. DECLASSIFICATION/DOWNGRADING SCHEDULE	
16. DISTRIBUTION STATEMENT (of this Report)		
Distribution Unlimited		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number)		
ELF Communications Seafarer Site Survey Michigan		
Environmental Data Maps		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number)		
The purpose of this Appendix is to provide detailed data maps (referenced in the Summary Volume of the Michigan Site Survey Report) in a convenient, unfolded format.		

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GTE SYLVANIA
INCORPORATED
COMMUNICATION SYSTEMS DIVISION

**ELF COMMUNICATIONS
SEAFARER PROGRAM**

SITE SURVEY FINAL REPORT
MICHIGAN REGION

APPENDIX TO SUMMARY
(DATA MAPS)

Contract No. N00039-75-C-0309

CDRL SEQUENCE NO. B006

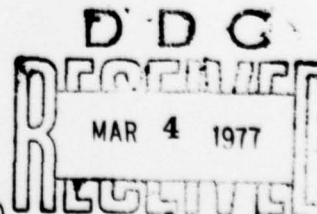
April 1976

Prepared for:

NAVAL ELECTRONIC SYSTEMS COMMAND
Special Communications Project Office
ELF COMMUNICATIONS DIVISION

Prepared by:

GTE Sylvania Incorporated
189 " B " Street
Needham Heights, Massachusetts 02194



FOREWORD

The purpose of this appendix is to provide the detailed data maps (referenced in the Summary volume of the Michigan Site Survey Report) in a convenient, unfolded format.

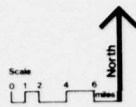
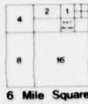
The reader will find it helpful to have this appendix at hand while progressing through the Summary material.

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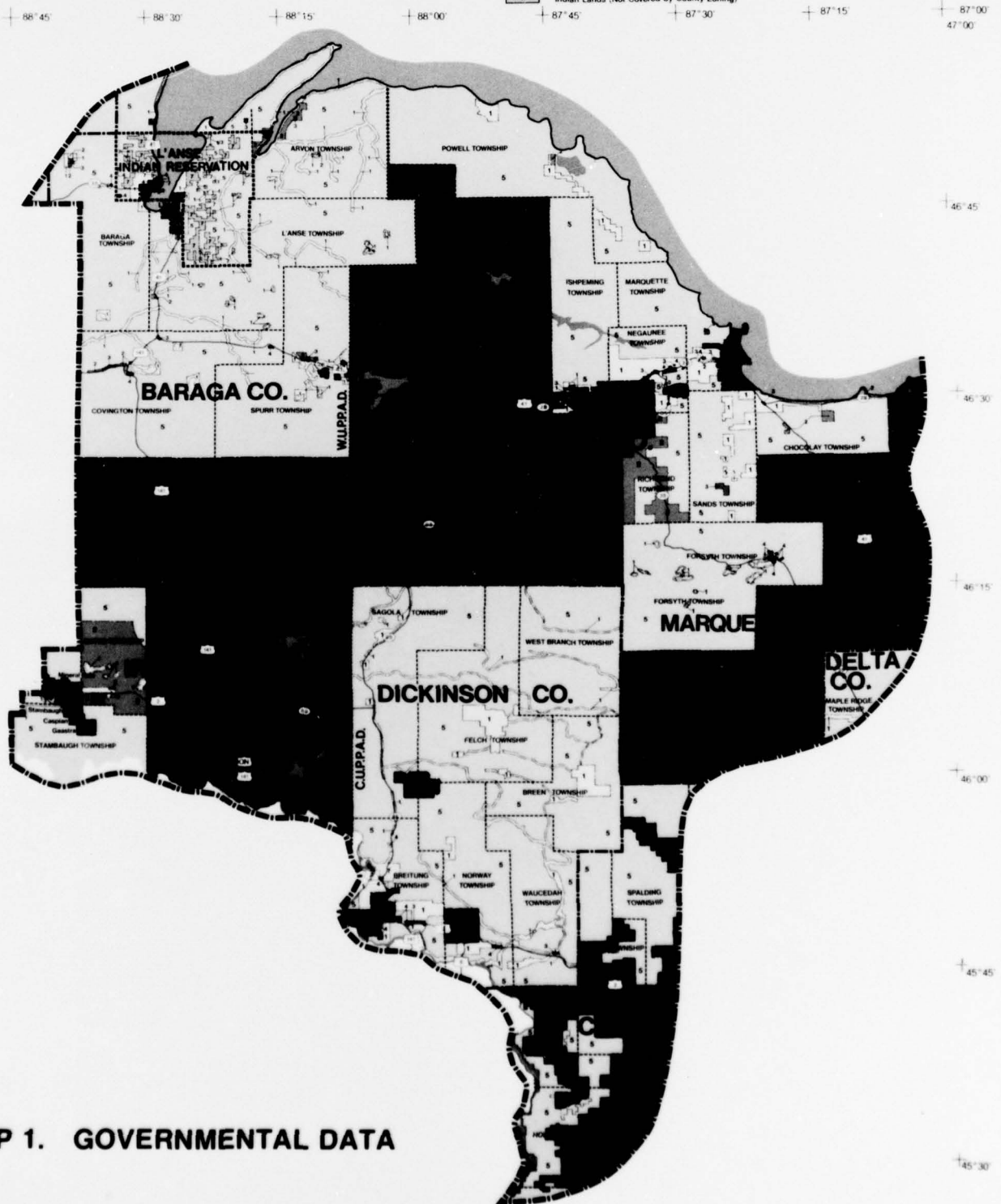
	<u>MAP NUMBER</u>
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Land Use Data	3
Market Value Data	4
Transportation Data	5
Utilities Data	6
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GOVERNMENT

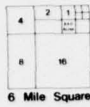


BOUNDARIES
Planning Region
County
Township
Corporate
Indian Reservation
Zoning

ZONING CLASSIFICATION (See Text)
Residential
Residential / Commercial
Commercial
Industrial
Agriculture
Unrestricted
Indian Lands (Not Covered by County Zoning)



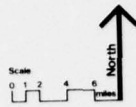
MAP 1. GOVERNMENTAL DATA



OWNERSHIP

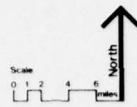
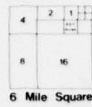


Private Land
Government Land
Corporate Land



MAP 2. LAND OWNERSHIP DATA

LAND USE



BOUNDARIES

- Corporate
- Planned Development
- Water & Waste Water Service Area
- Special Land Use Area (See Text)

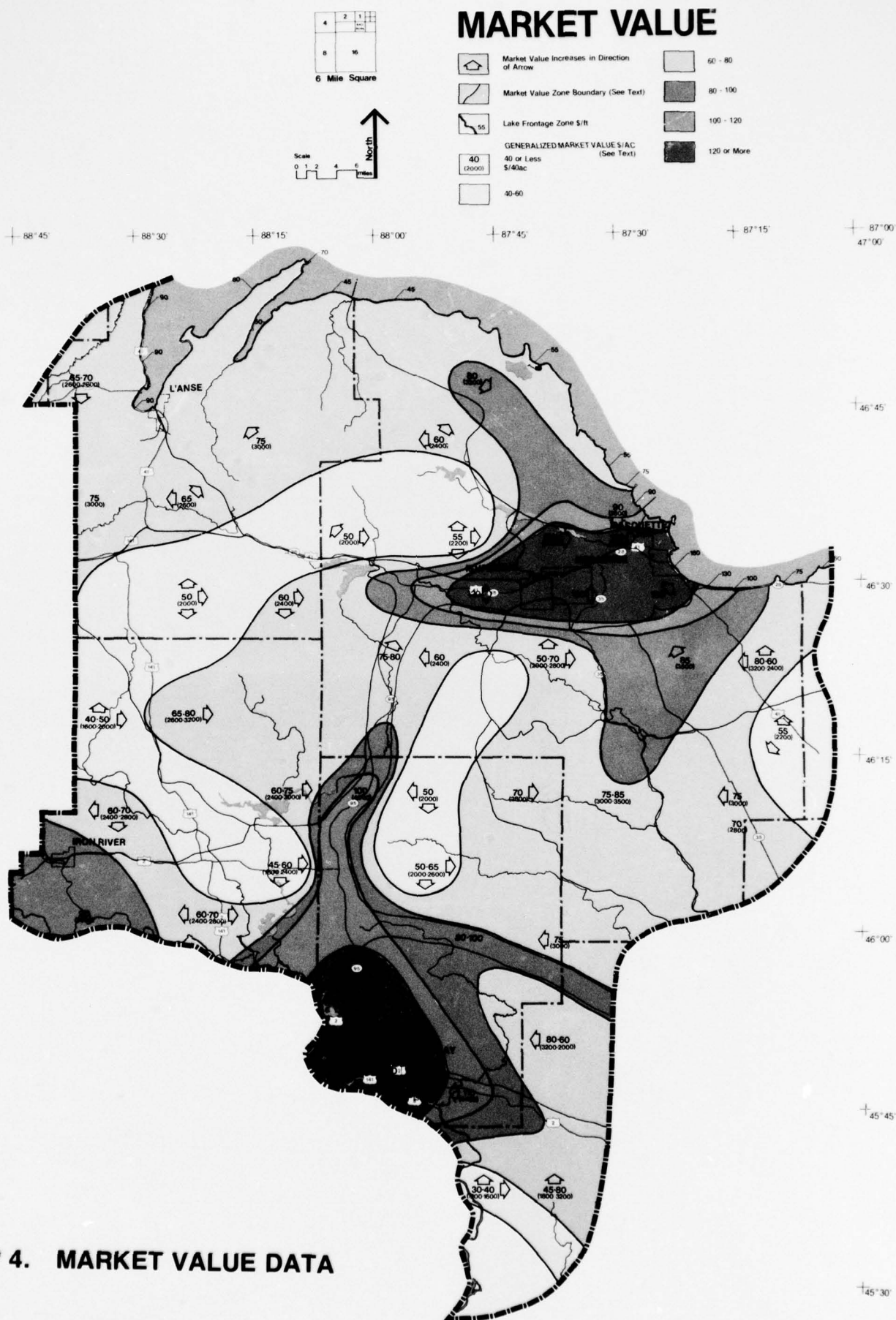
SETTLEMENTS (See Text)

- Urban
- Rural
- Building Cluster
(Circle Size Varies to Enclose Settlement Structures)

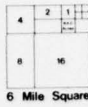
- Cemetery
- Prison Facility



MAP 3. LAND USE DATA



TRANSPORTATION



All Season Truck Route
All Season Truck Route (Special Designation)
Seasonal Truck Route
Other Paved Road
Gravel Road
Good Dirt Road
Poor Dirt Road
Railroad
Abandoned Railroad

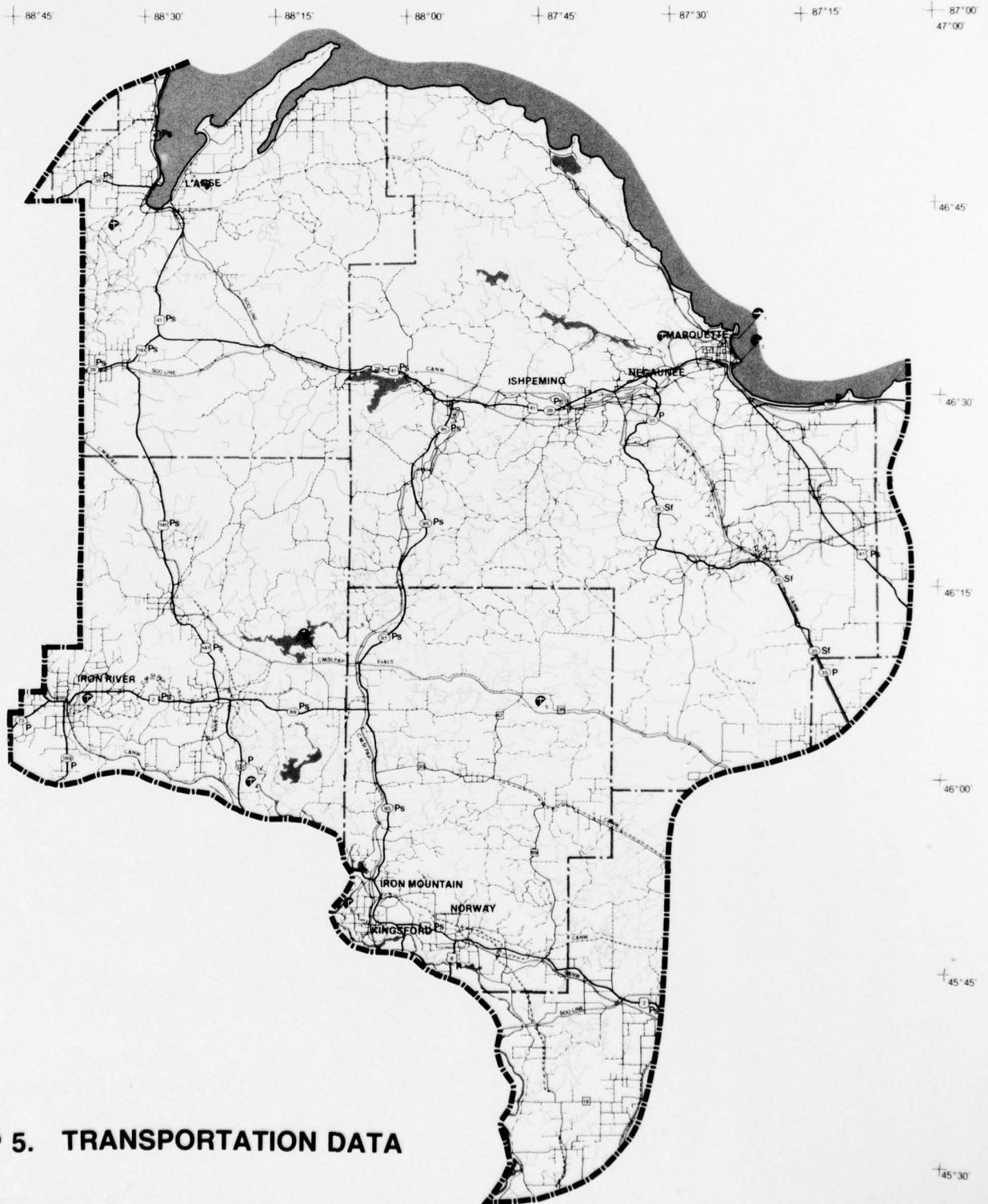
ROAD CLASSIFICATION
U.S. Numbered Highway
State Highway
Designated County Road



Airport

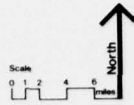
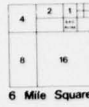


Harbor



MAP 5. TRANSPORTATION DATA

UTILITIES



ELECTRICAL TRANSMISSION AND DISTRIBUTION SYSTEM

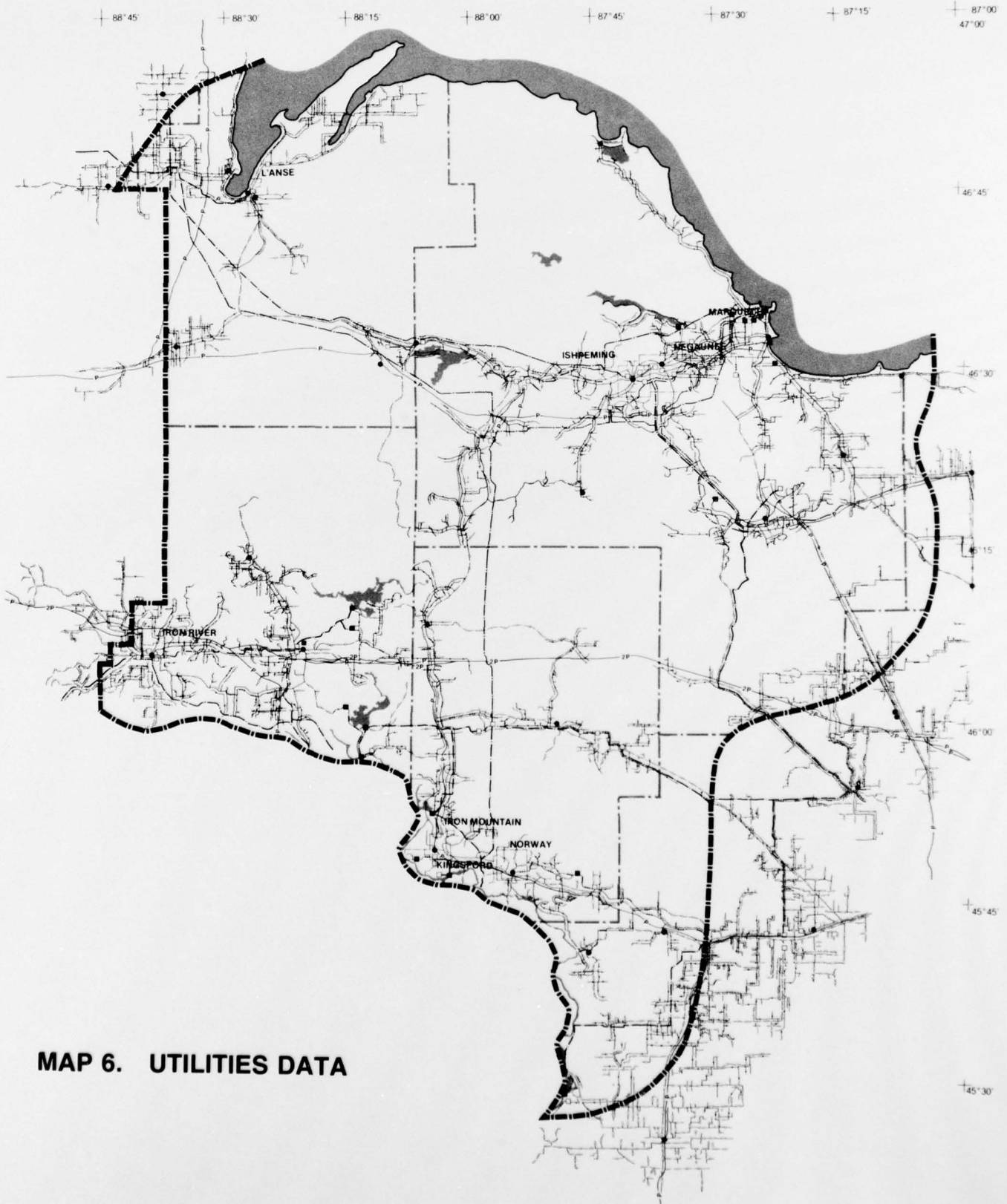
- Transmission Line (69kV-138kV)
- Three Phase Distribution Line (12.5kV-33kV)
- Single Phase Distribution Line
- Underground Line
- Substation
- Switching Station
- Generation Station

PIPELINES

- One Line
- Two Lines
- Three Lines

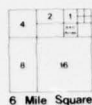
TELEPHONE SYSTEM

- Underground Cable
- Open Wire
- Aerial Cable
- Central Office



MAP 6. UTILITIES DATA

MINERAL EXTRACTION



- Areas Producing Metallic Minerals
- Dense Mine Areas (See Text)
- Areas Having Historic, Anticipated or Potential Significance for the Production of Metallic Minerals
- Iron Mines, Both Producing and Those with Past Production
- Clay Deposits Suitable for Brick or Tile
- Gravel and Sand Pits (P) and Rock Quarries (Q)
- Metallic Minerals (No Current Production):
 - Ag - Silver
 - Au - Gold
 - Be - Beryllium
 - Cu - Copper
 - Mn - Manganese
 - Mo - Molybdenum
 - Pb - Lead
 - Zn - Zinc



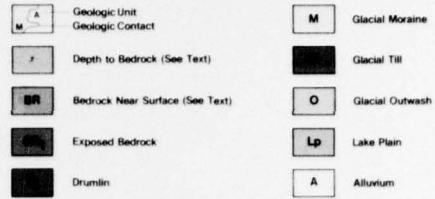
MAP 7. MINERAL EXTRACTION DATA



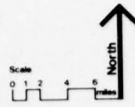
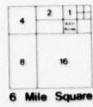
MAP 8. BEDROCK GEOLOGIC DATA



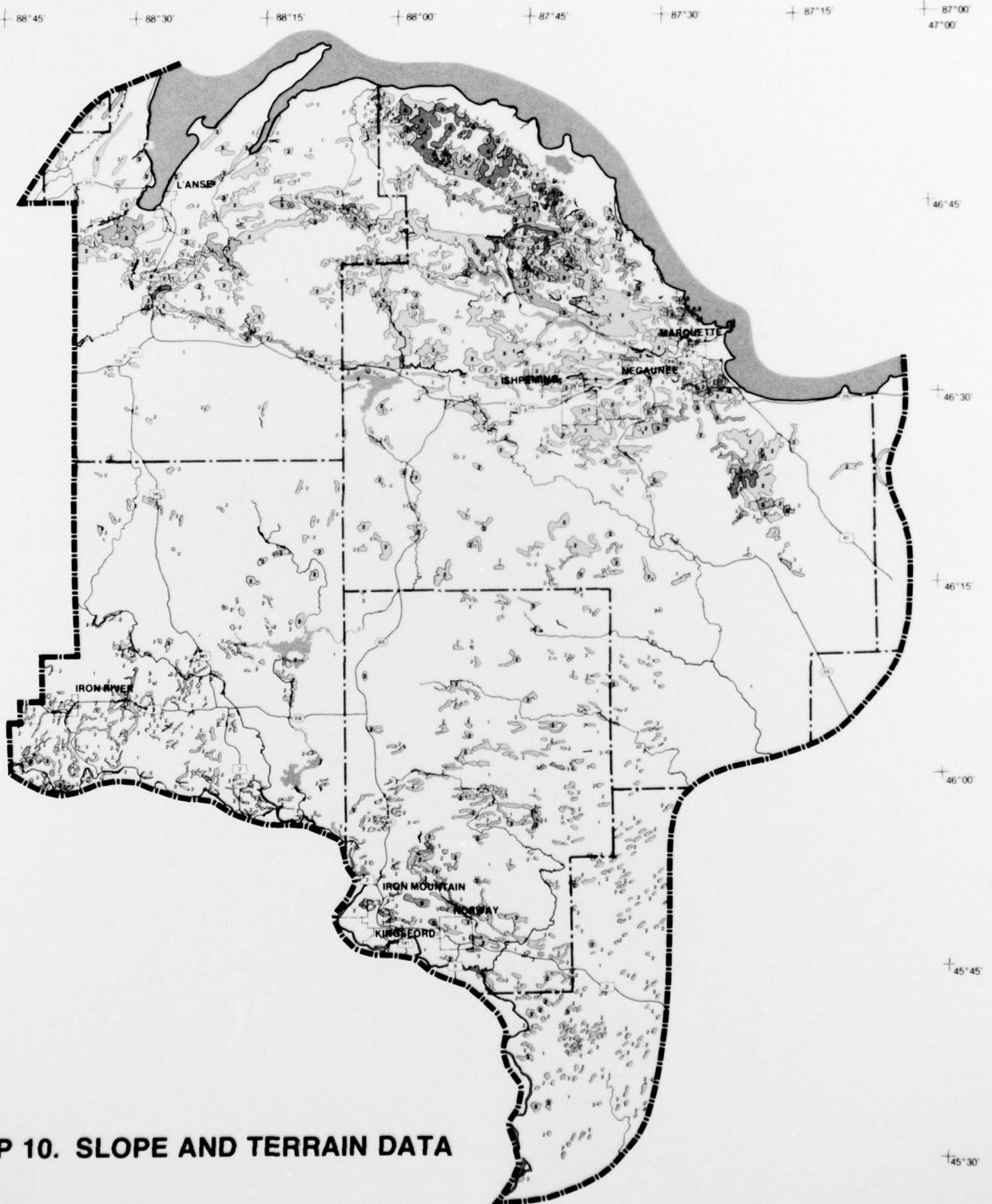
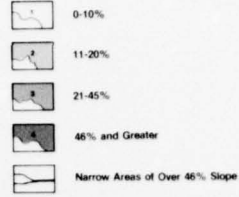
SURFICIAL GEOLOGY

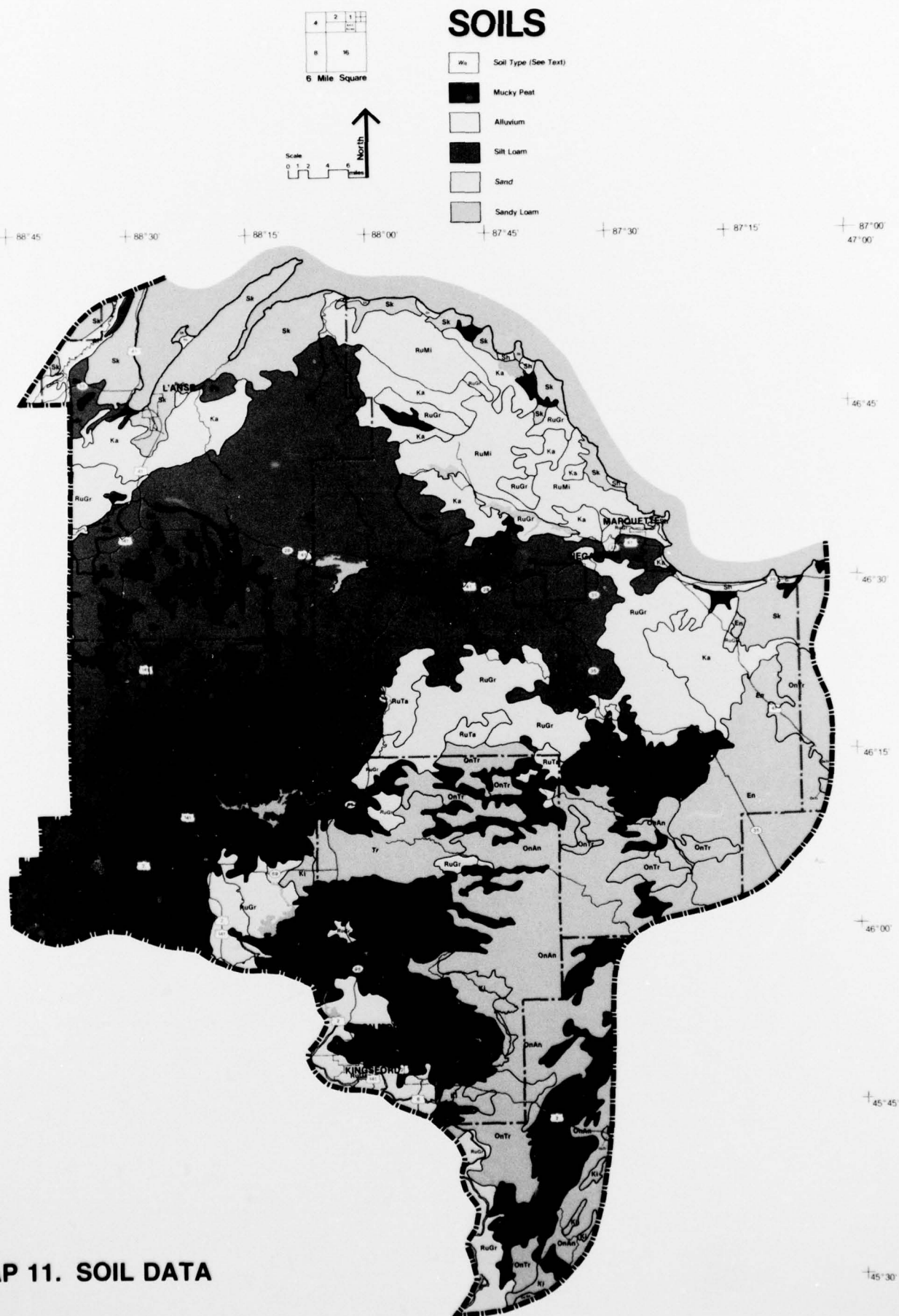


MAP 9. SURFICIAL GEOLOGIC DATA

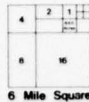


SLOPE

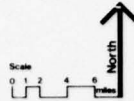




SURFACE WATER



6 Mile Square



STREAM ORDER (See Text)



Primary Watersheds



Secondary Watersheds (Greater than 4th Order Streams)



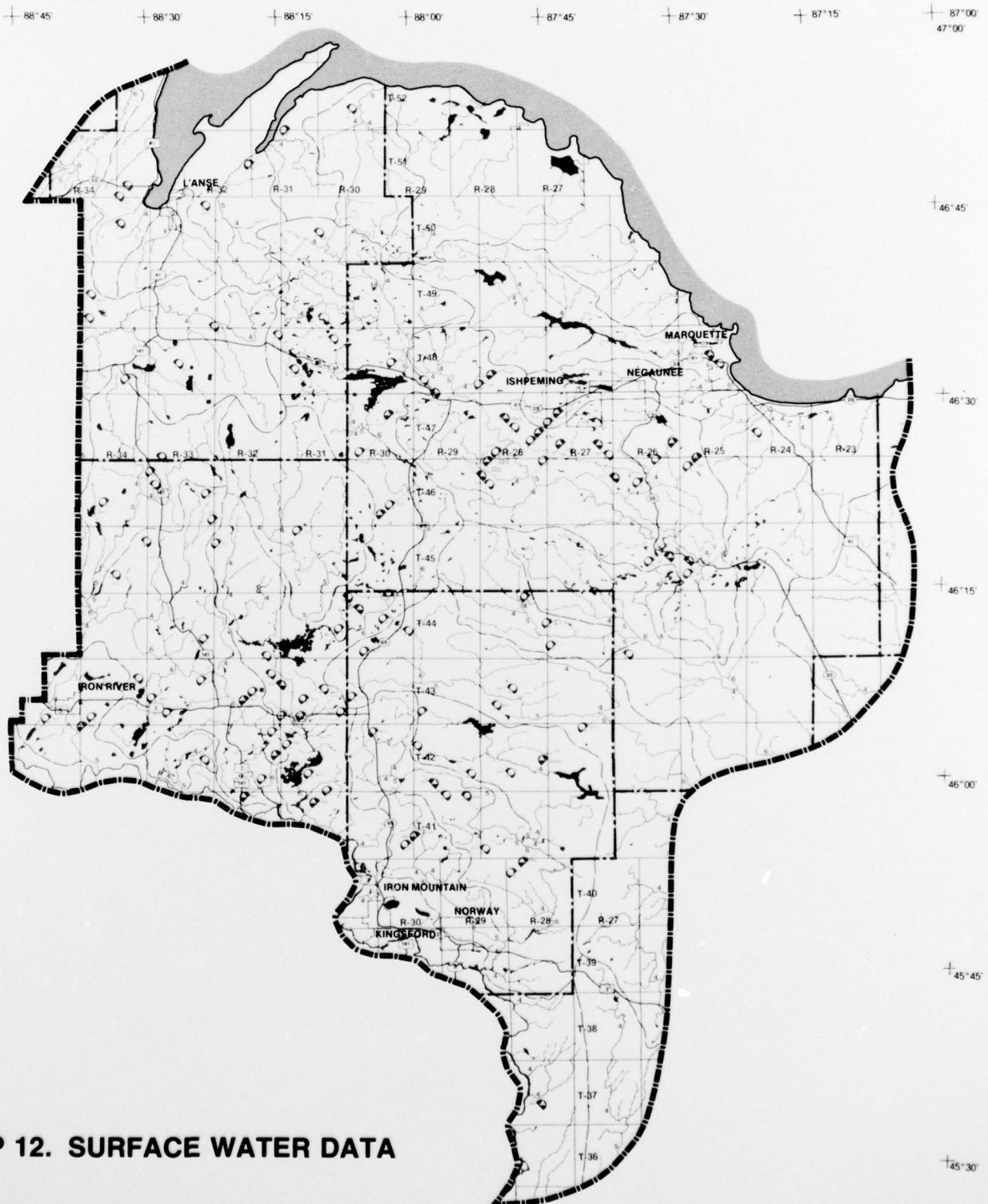
Lakes and Reservoirs



Stream Gaging Stations



Temperature, Silt Load and Water Quality Sampling Points (See Text)



MAP 12. SURFACE WATER DATA

4	2	1	
8	16		

6 Mile Square

6 Mile Square



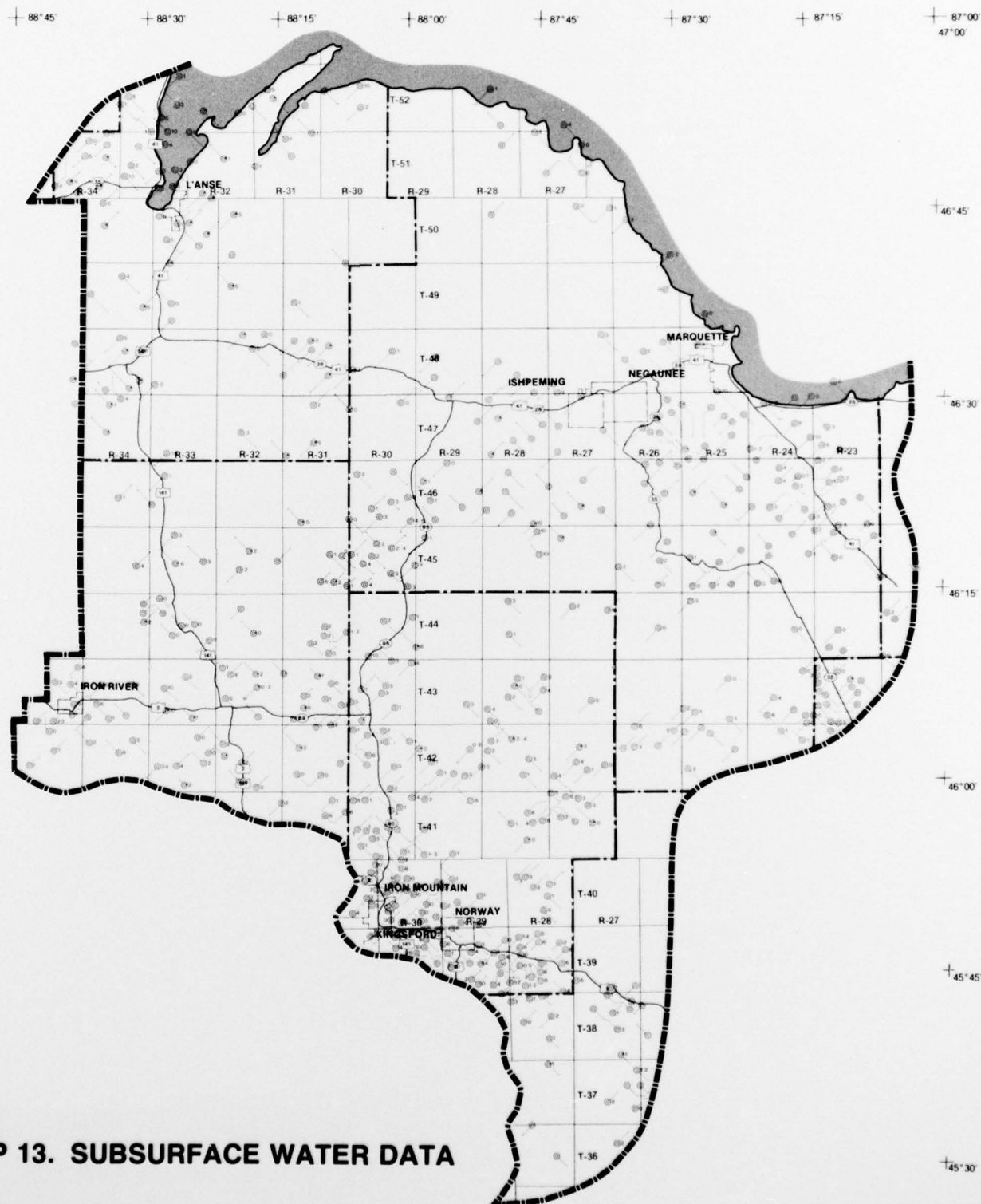
Water Quality

Well Depth (See Text)

Well Location

NO₃ Nitrate Ca - Calcium
Cl - Chloride Mg - Magnesium
SO₄ Sulfate Na & K - Sodium & Potassium
HCO₃ Bicarbonate Fe - Iron

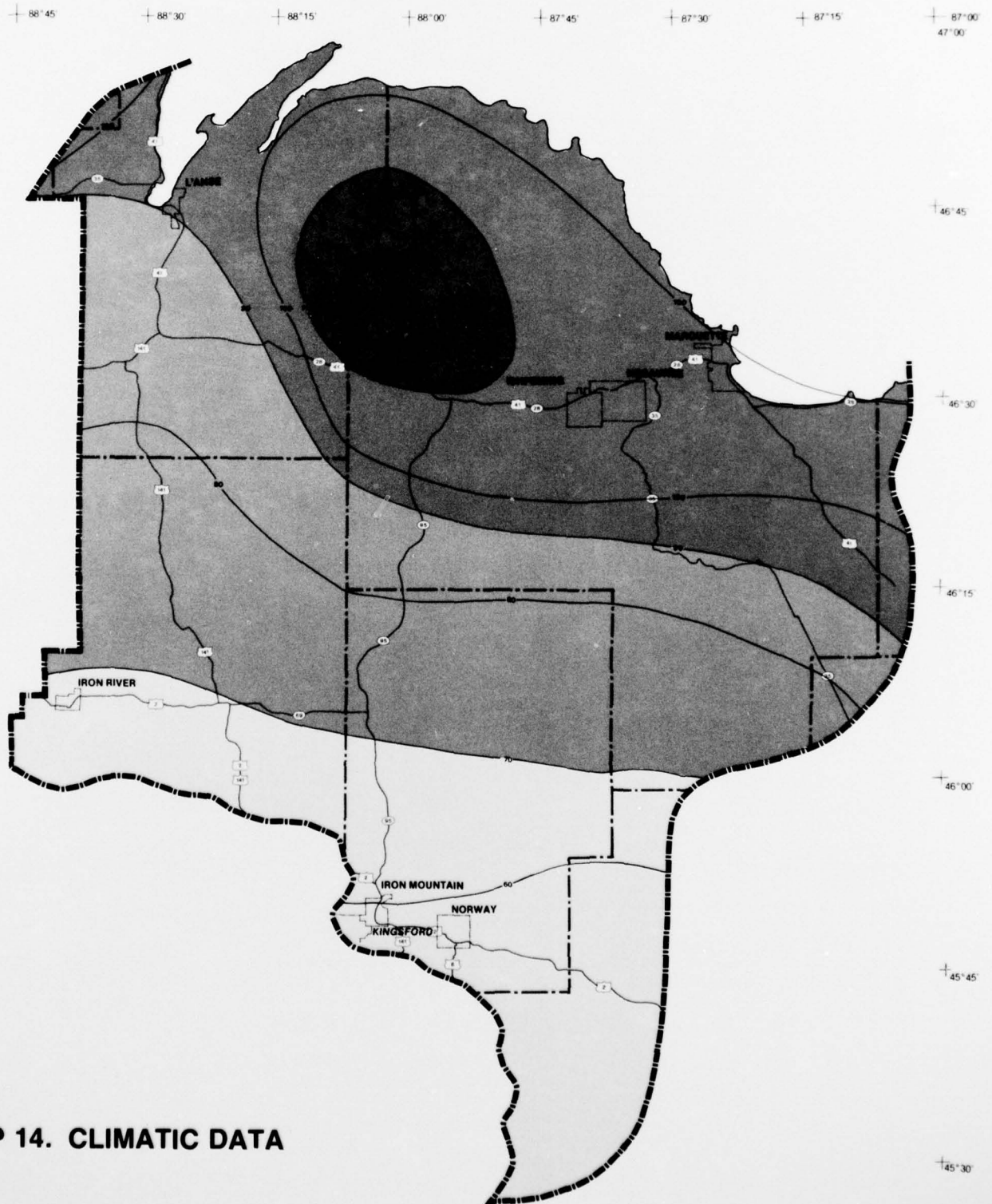
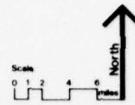
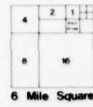
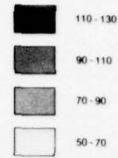
Solid Sections Indicate an Ion Content
Exceeding U.S. Public Health Dept. Standards
(See Text)



MAP 13. SUBSURFACE WATER DATA

CLIMATE

GENERALIZED SNOWFALL ZONES
(Average Annual Snowfall in Inches)

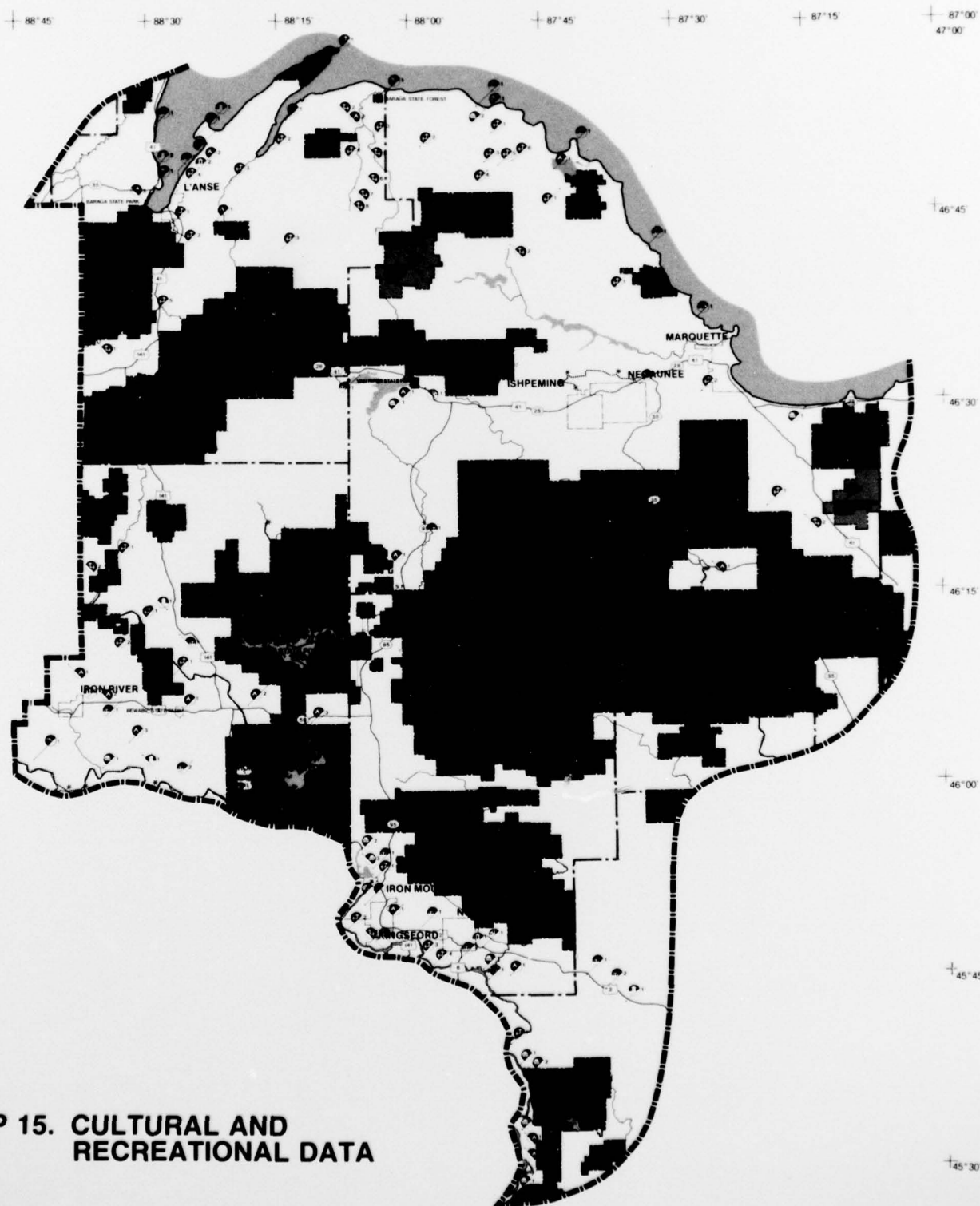


MAP 14. CLIMATIC DATA



CULTURAL & RECREATIONAL

- | | | | |
|--|--------------------------------|--|-----------------------------------|
| | Federal Forest Lands | | Archaeological Sites |
| | State Forest Lands | | Park Sites with Campgrounds |
| | State Park Lands | | Small Park Sites and Picnic Areas |
| | Canoe Routes | | Ski Areas |
| | Access Points | | Recorded View Points |
| | House and Small Historic Sites | | |
| | Industrial Historic Sites | | |
| | Historic Settlements | | |

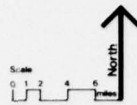
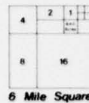


MAP 15. CULTURAL AND RECREATIONAL DATA



MAP 16. VEGETATION DATA

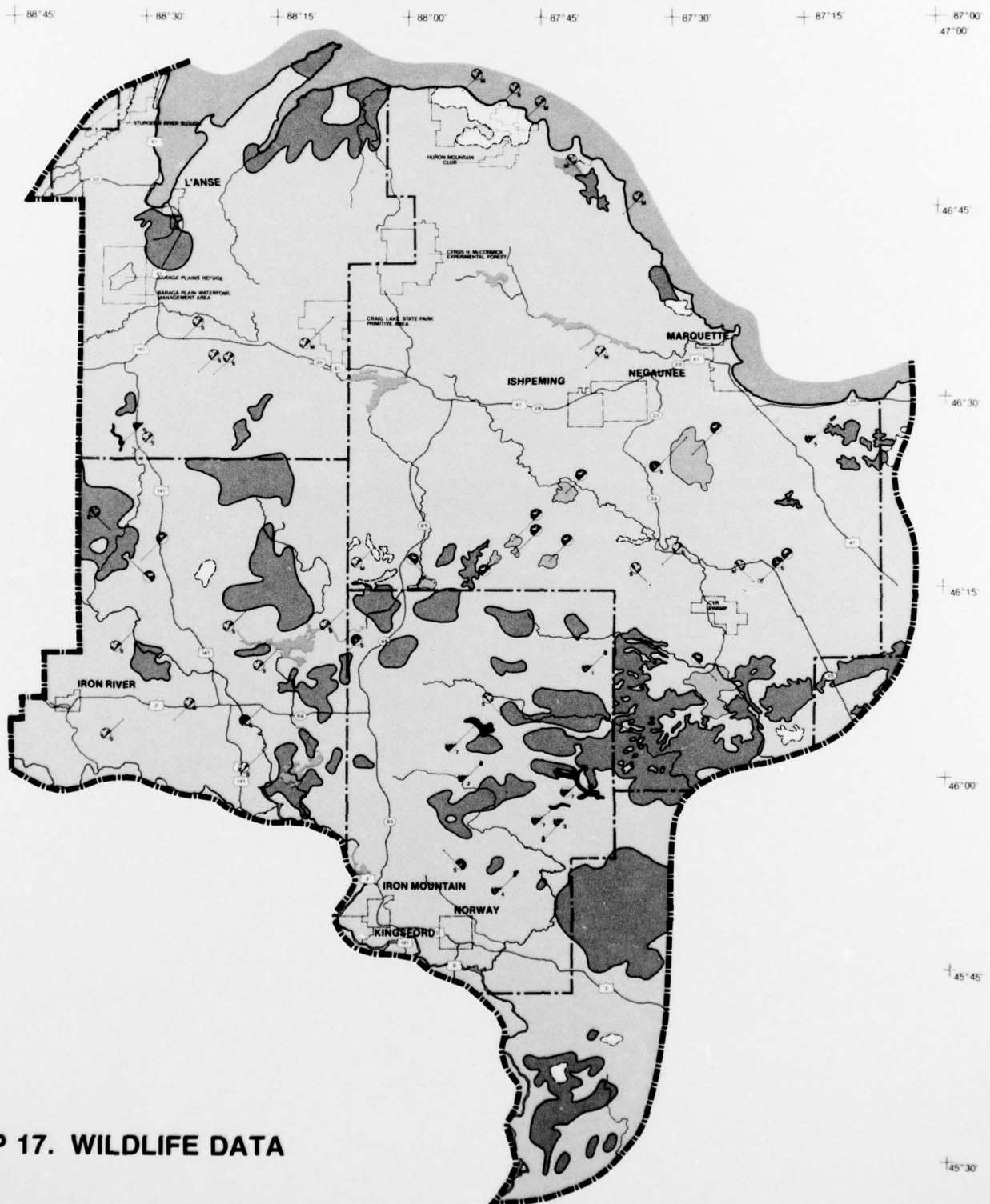
WILDLIFE



DEERYARD FOOD CONDITIONS

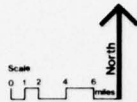
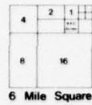
- Moderate
- Poor
- Single (S) or Multiple (M) Eagle Nest Sites
- Single (S) or Multiple (M) Osprey Nest Sites
- Lynx Sitings

- Heron Rookery
- Sharp Tail Grouse Management Areas
- Wildlife Flooding Areas
- Other Areas of Interest (See Text)



MAP 17. WILDLIFE DATA

R.O.W. OPPORTUNITIES



ELECTRICAL TRANSMISSION AND DISTRIBUTION SYSTEM



Transmission Line (69kV-138kV)
Three Phase Distribution Line (12.5kV-33kV)
Single Phase Distribution Line
Underground Cable
Substation
Switching Station
Generation Station

TELEPHONE SYSTEM

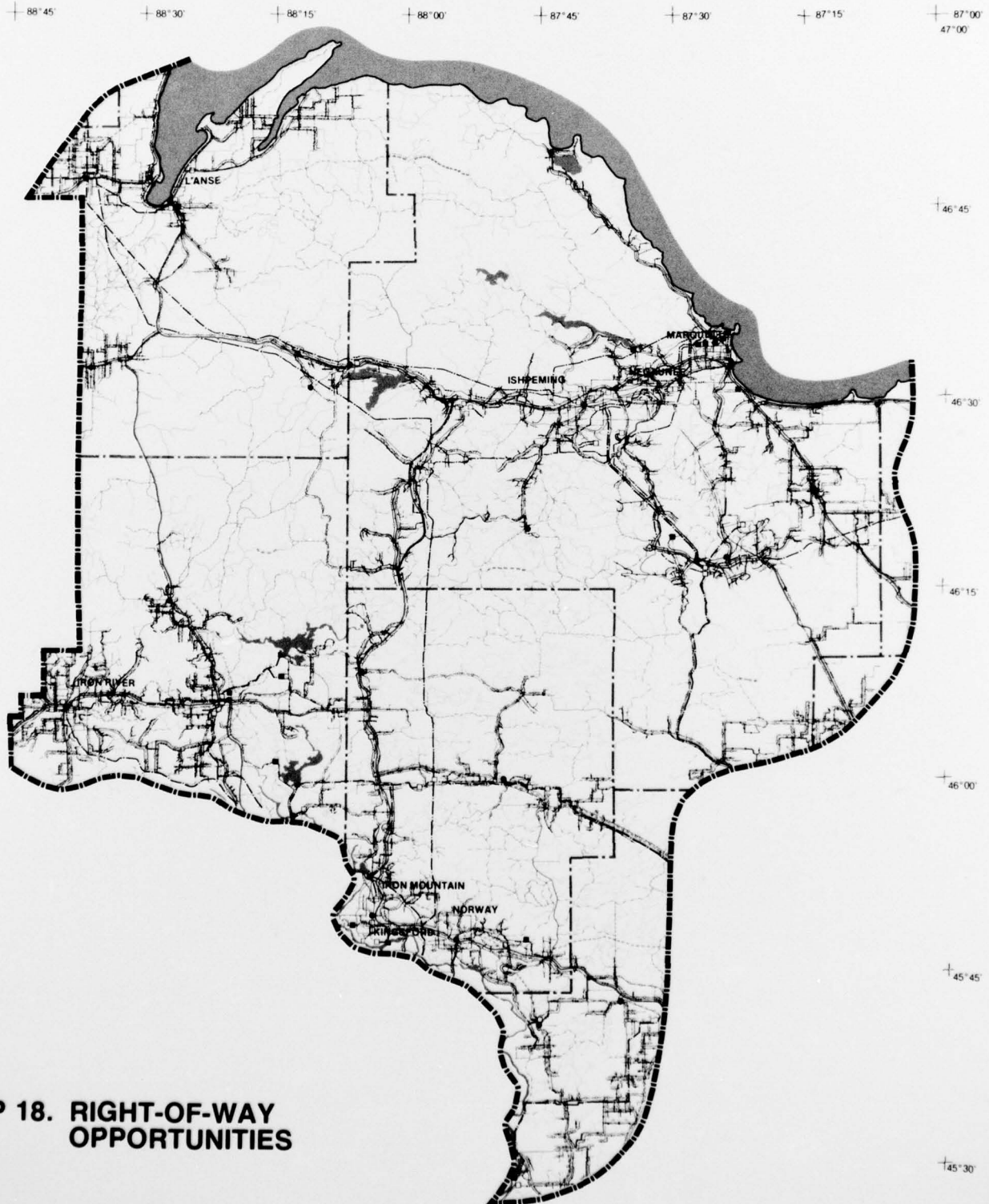


Underground Cable
Open Wire
Aerial Cable
Central Office

TRANSPORTATION



U.S. and State Highways
Other Paved Roads
Gravel Road
Good Dirt Road
Poor Dirt Road
Abandoned Railroad



MAP 18. RIGHT-OF-WAY OPPORTUNITIES



ND
ATE

