

**APPENDIX C
(SECTION C.3)**

ADDITIONAL ECOLOGICAL RISK CHARACTERIZATION MAPS

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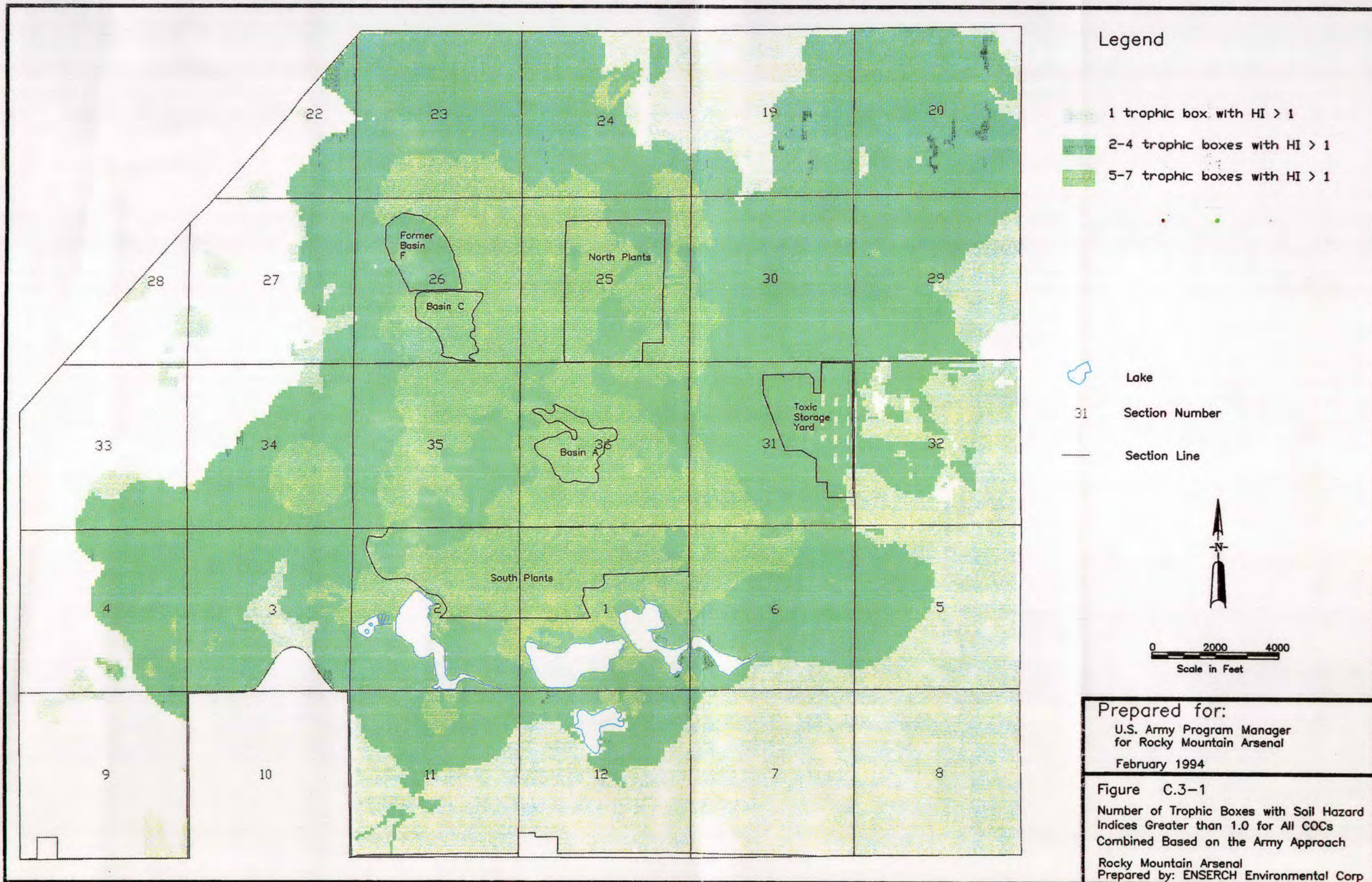
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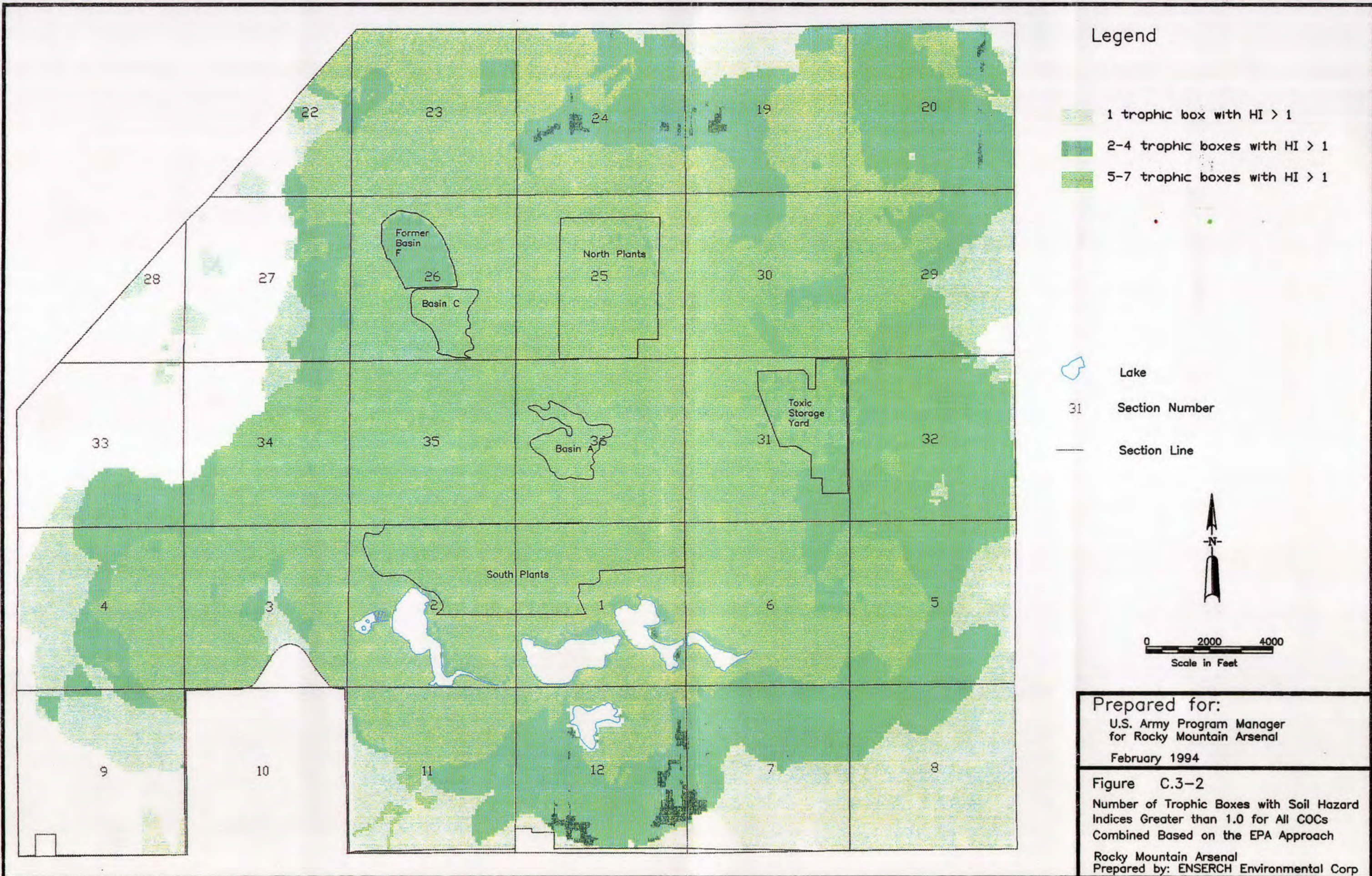
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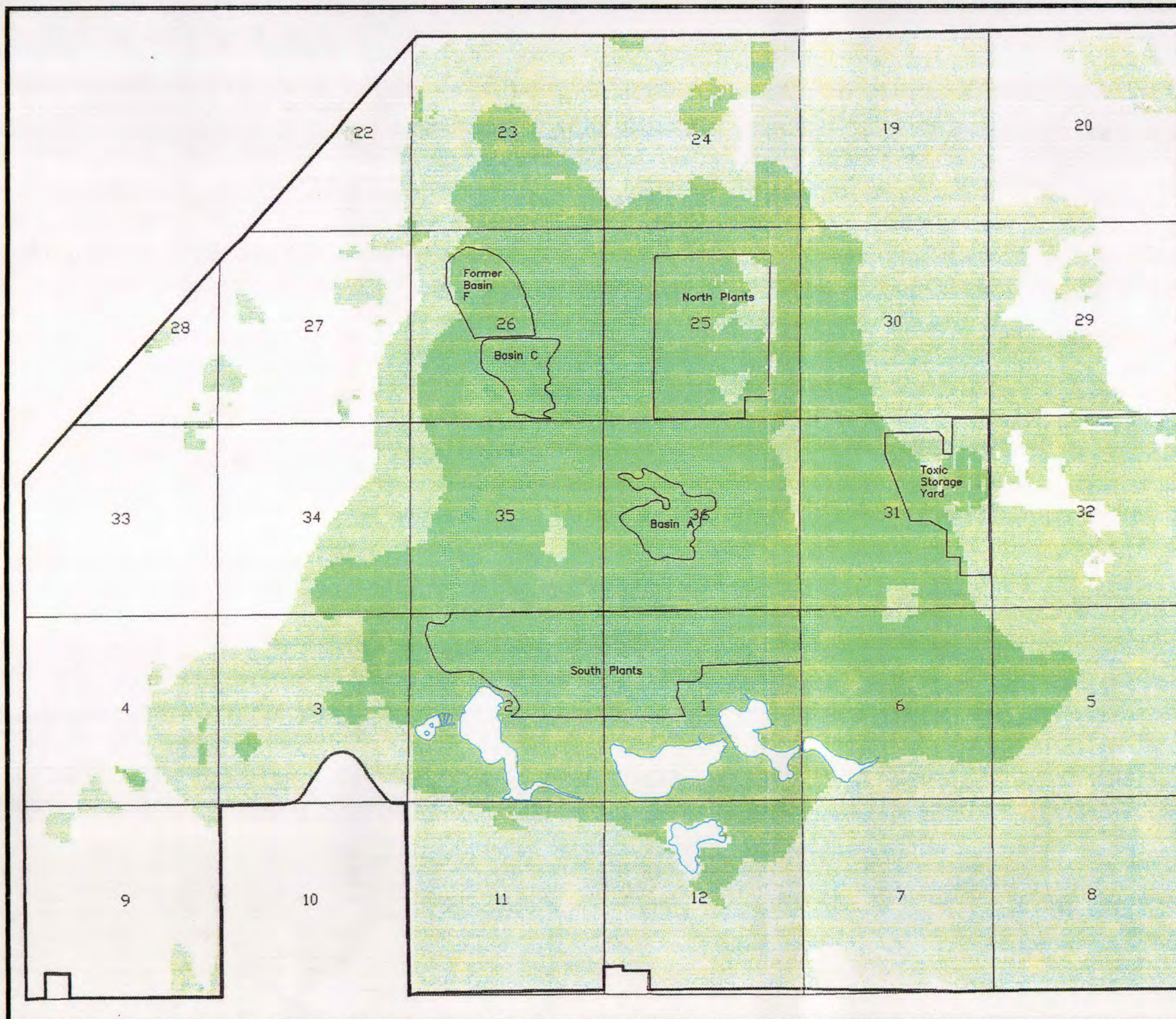
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This appendix section contains additional maps of potential risks to biota and soil contaminant concentrations, as well as sediment contaminant concentration maps. Maps depicting potential risk based on a single approach (i.e., EPA, Army, or Shell), if they were not the intermediate result with respect to areal extent of risk, are located in this appendix section (Figures C.3-1 through C.3-8). Also located in this appendix section are maps of potential risk from chlordane and the nonbioaccumulative organic COCs such as "number of trophic boxes ..." maps for the group at $HI > 1$ and $HI > 10$, and the HQ maps for some of these COCs (Figures C.3-9, C.3-22, C.3-79 through C.3-85); only the Army approach computed potential risks from these COCs. Hazard quotient and HI maps for a number of trophic boxes based on single approaches (Figures C.3-10 through C.3-21, C.3-103 through C.3-111), as well as for single trophic boxes based on all three approaches together (Figures C.3-23 through C.3-78, C.3-93 through C.3-102, C.3-112 through C.3-115), are found here. Finally, soil concentration maps for DDT/DDE (Figure C.3-86), endrin (Figure C.3-87), arsenic (Figure C.3-88), cadmium (Figure C.3-89), copper (Figure C.3-90), DBCP (Figure C.3-91), and chlordane (Figure C.3-92) are located here, as well as sediment contaminant concentration maps of Upper Derby Lake for aldrin (Figure C.3-116), dieldrin (Figure C.3-117), and endrin (Figure C.3-118).



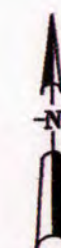




Legend

- 1 trophic box with HI > 1
- 2-4 trophic boxes with HI > 1
- 5-7 trophic boxes with HI > 1

- Lake
- Section Number
- Section Line



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Scale in Feet

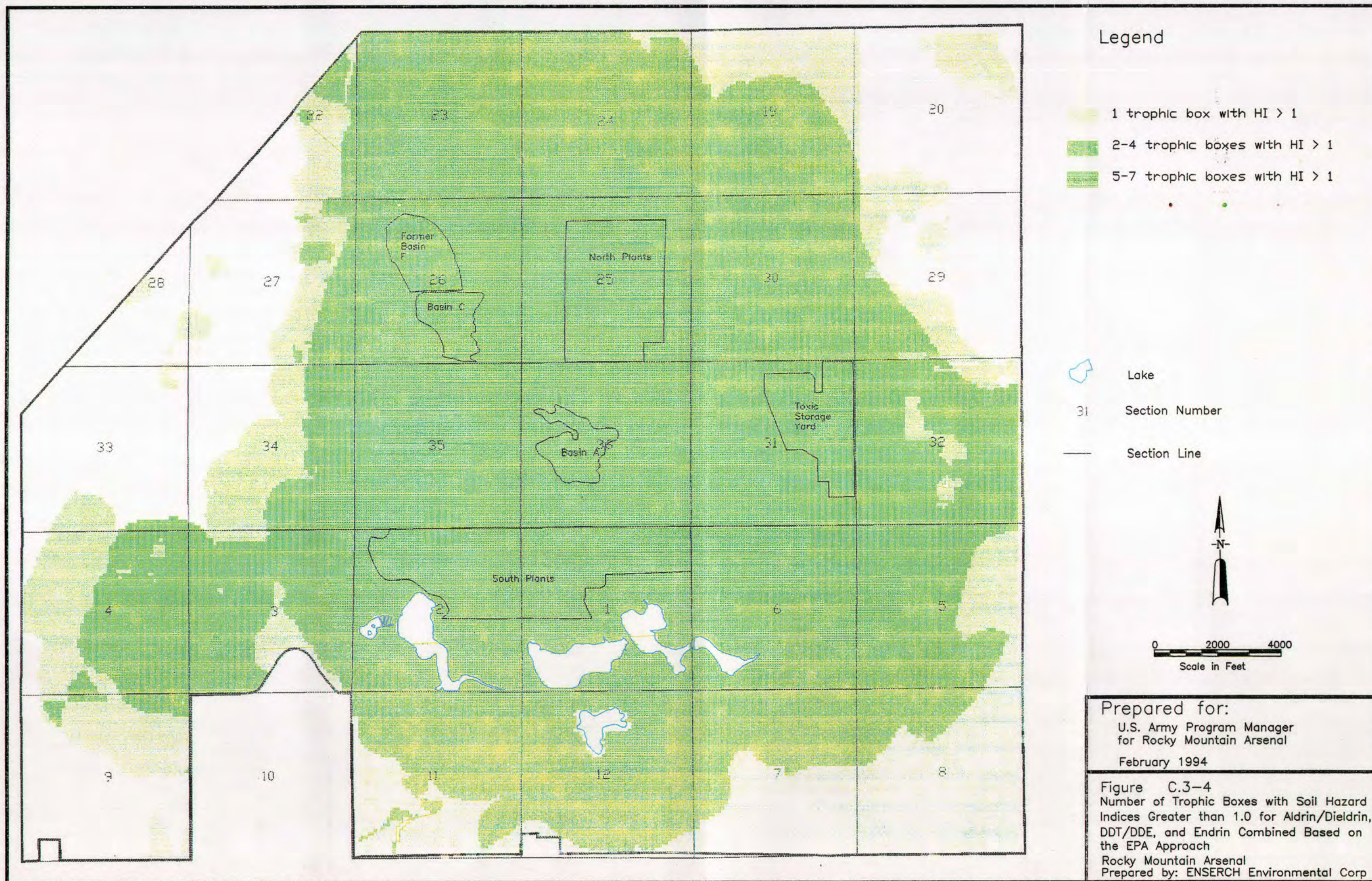
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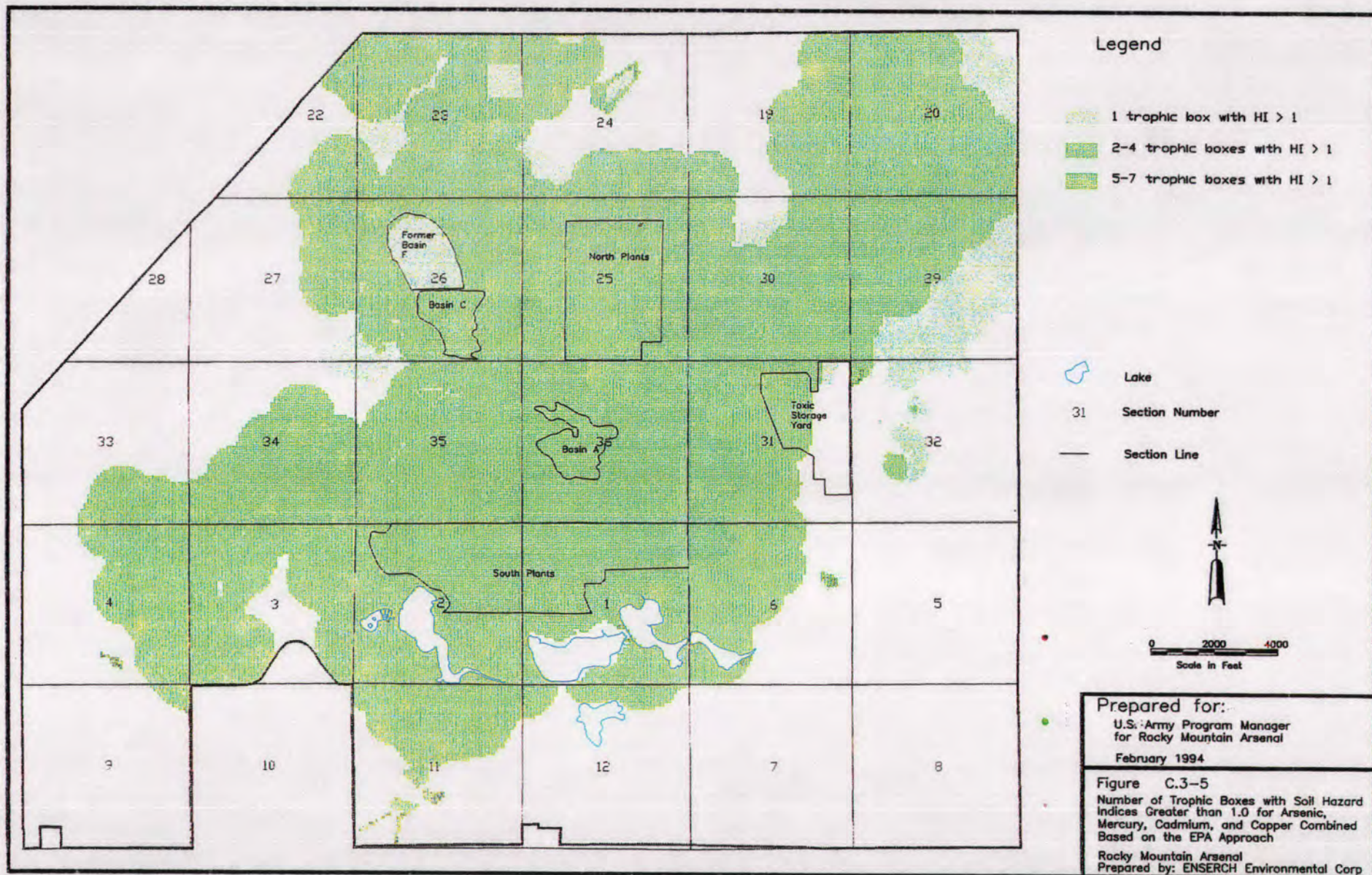
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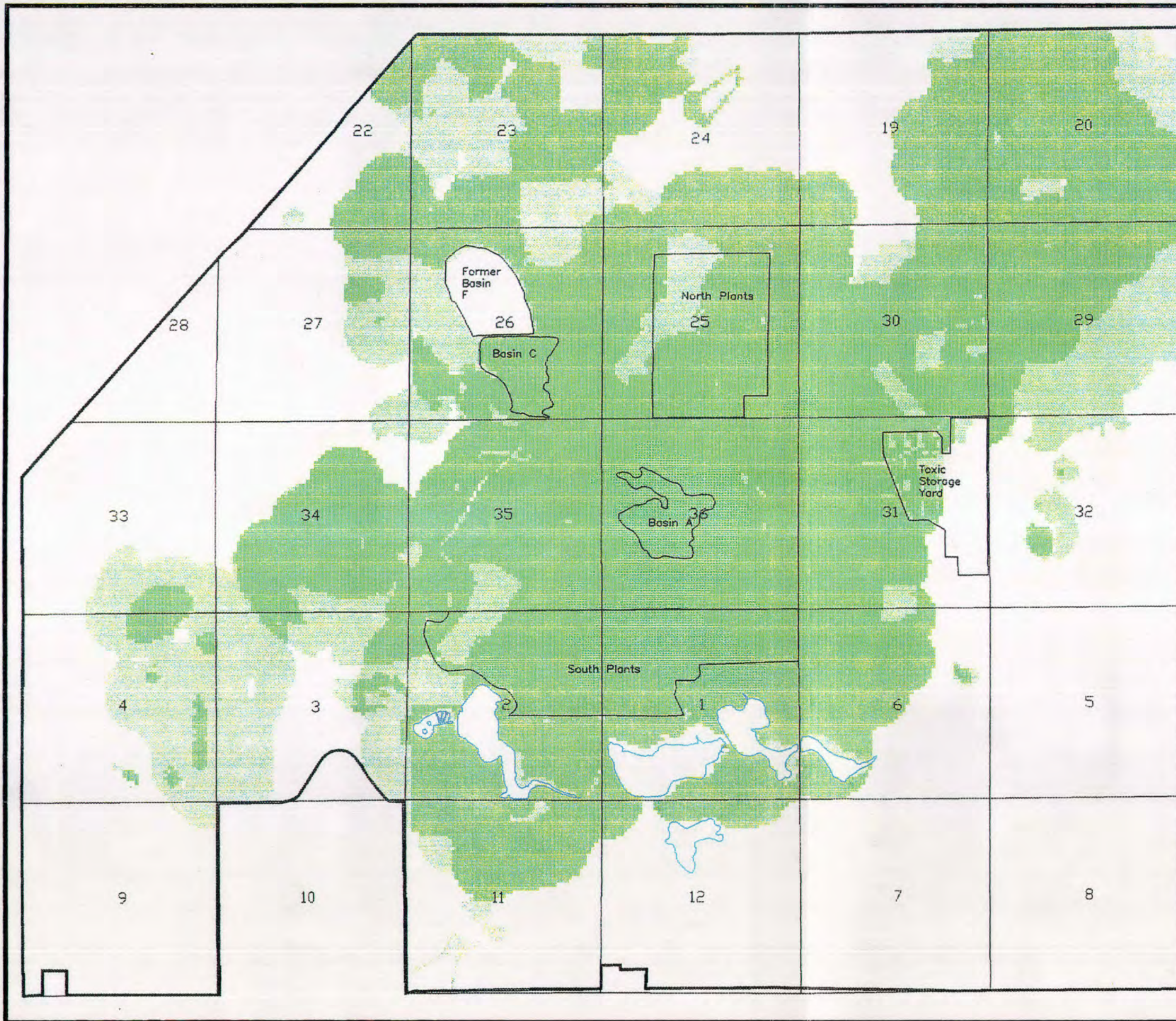
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Figure C.3-3

Number of Trophic Boxes with Soil Hazard Indices Greater than 1.0 for Aldrin/Dieldrin, DDT/DDE, and Endrin Combined Based on the Army Approach
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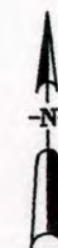




Legend

- 1 trophic box with HI > 1
- 2-4 trophic boxes with HI > 1
- 5-7 trophic boxes with HI > 1

- Lake
- 31 Section Number
- Section Line



0 2000 4000
Scale in Feet

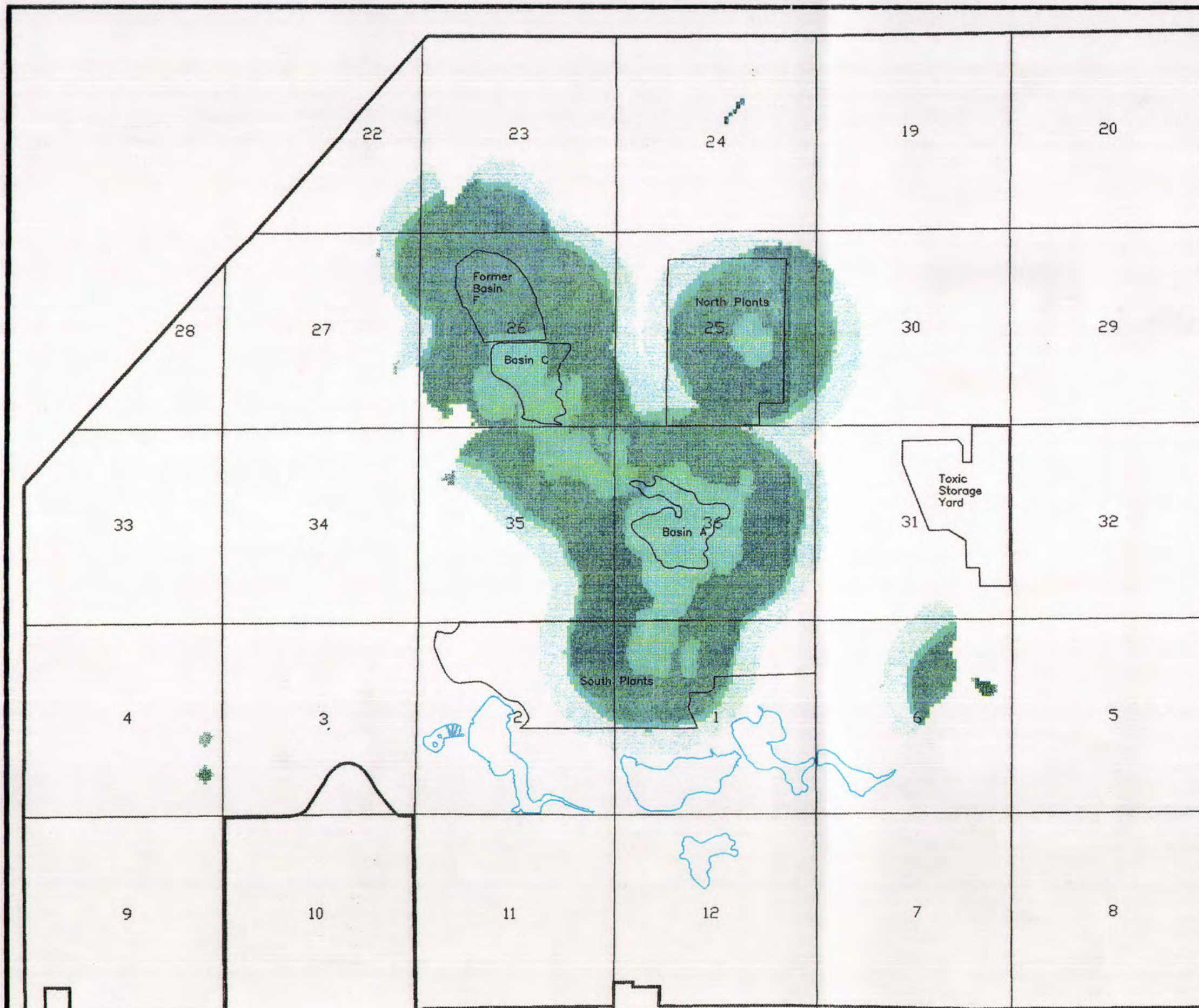
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Figure C.3-6
Number of Trophic Boxes with Soil Hazard
Indices Greater than 1.0 for Arsenic,
Mercury, Cadmium, and Copper Combined
Based on the Shell Approach

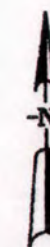
Rocky Mountain Arsenal
Prepared by: ENSERCH Environmental Corp



Legend

- 1 trophic box with HI > 1
- 2-4 trophic boxes with HI > 1
- 5-7 trophic boxes with HI > 1

- Lake
- 31 Section Number
- Section Line



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Scale in Feet

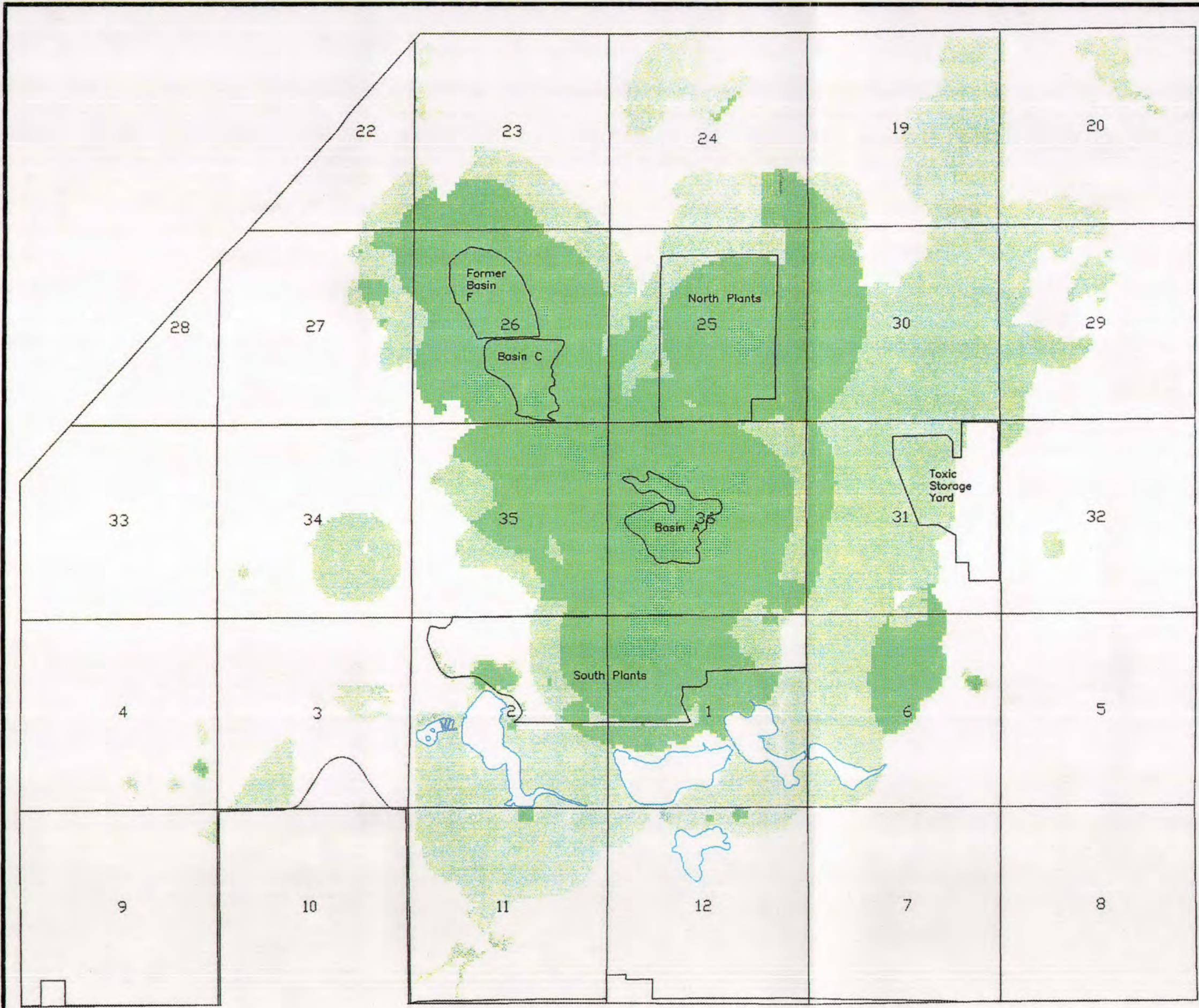
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Figure C.3-7

Number of Trophic Boxes with Soil Hazard Indices Greater than 1.0 for Arsenic, Mercury, Cadmium, and Copper Concentrations Above Indicator Levels Based on the Army Approach
Rocky Mountain Arsenal
Prepared by: ENSERCH Environmental Corp



Legend

- 1 trophic box with HI > 1
- 2-4 trophic boxes with HI > 1
- 5-7 trophic boxes with HI > 1

- Lake
- Section Number
- Section Line



0 2000 4000
Scale in Feet

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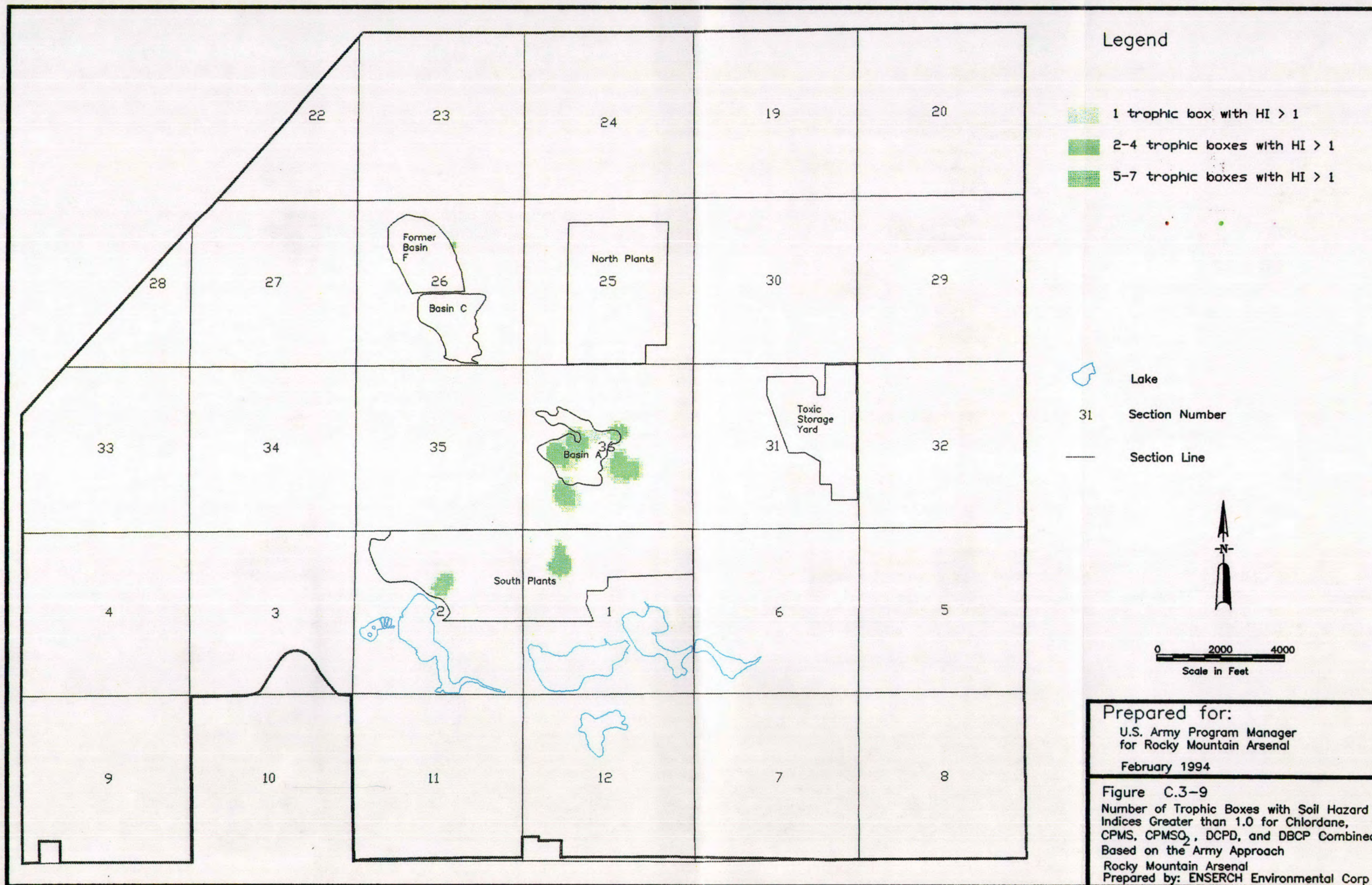
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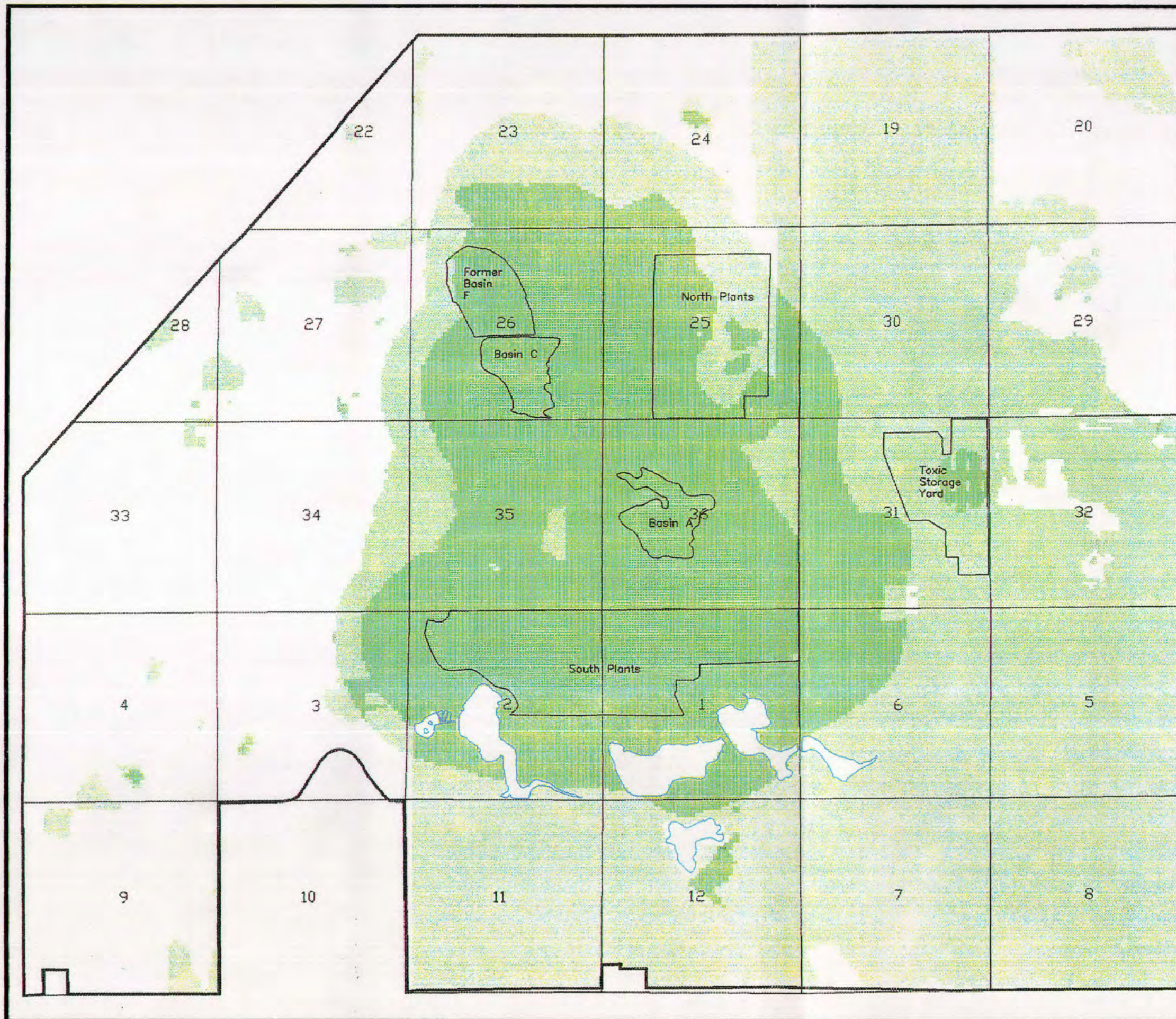
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Figure C.3-8

Number of Trophic Boxes with Soil Hazard
Indices Greater than 1.0 for Arsenic, Mercury,
Cadmium, and Copper Concentrations Above
Indicator Levels Based on the EPA Approach

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Legend

- 1 trophic box with HI > 1
- 2-4 trophic boxes with HI > 1
- 5-7 trophic boxes with HI > 1



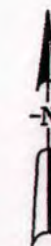
Lake

31

Section Number



Section Line



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Scale in Feet

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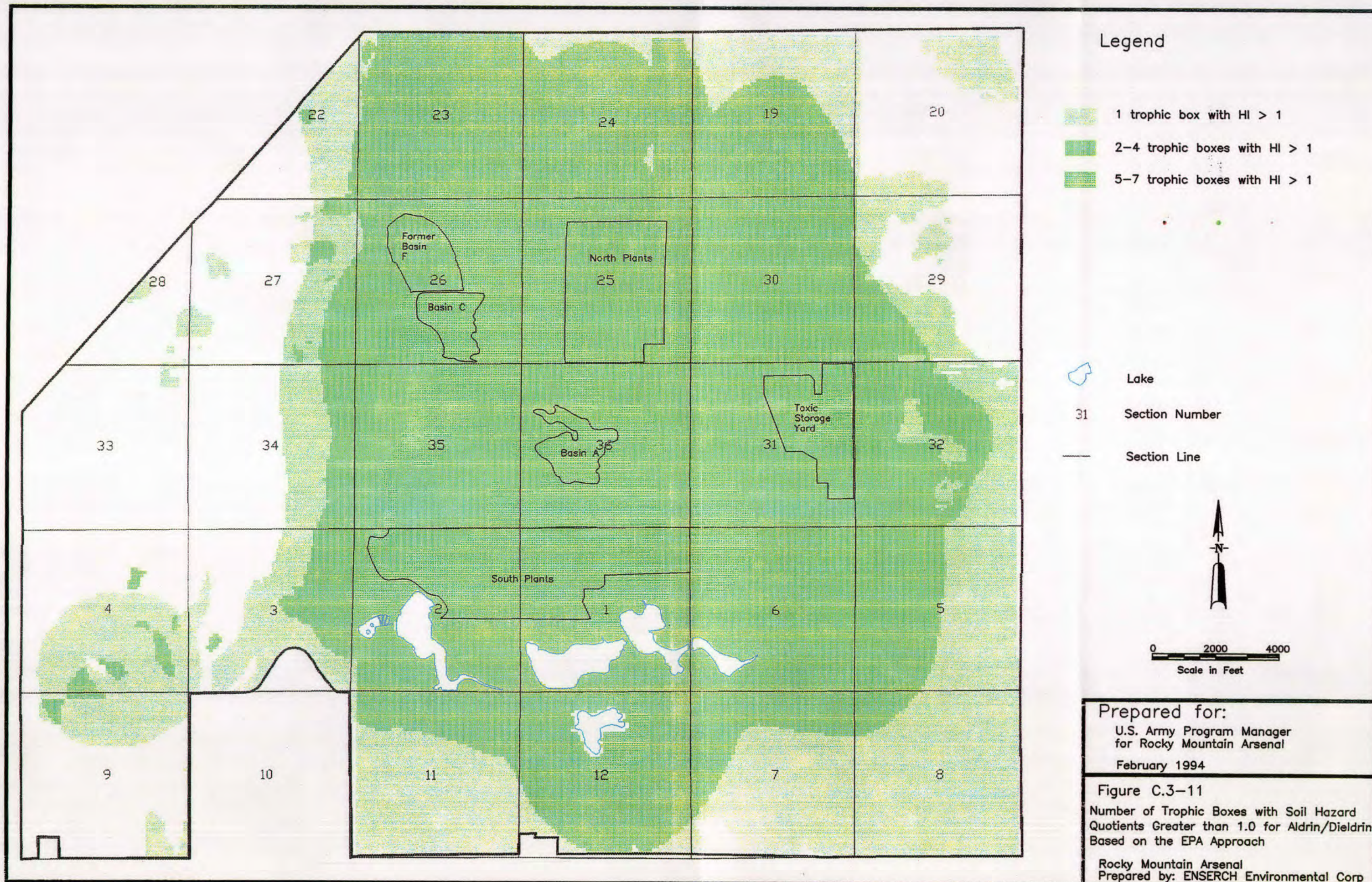
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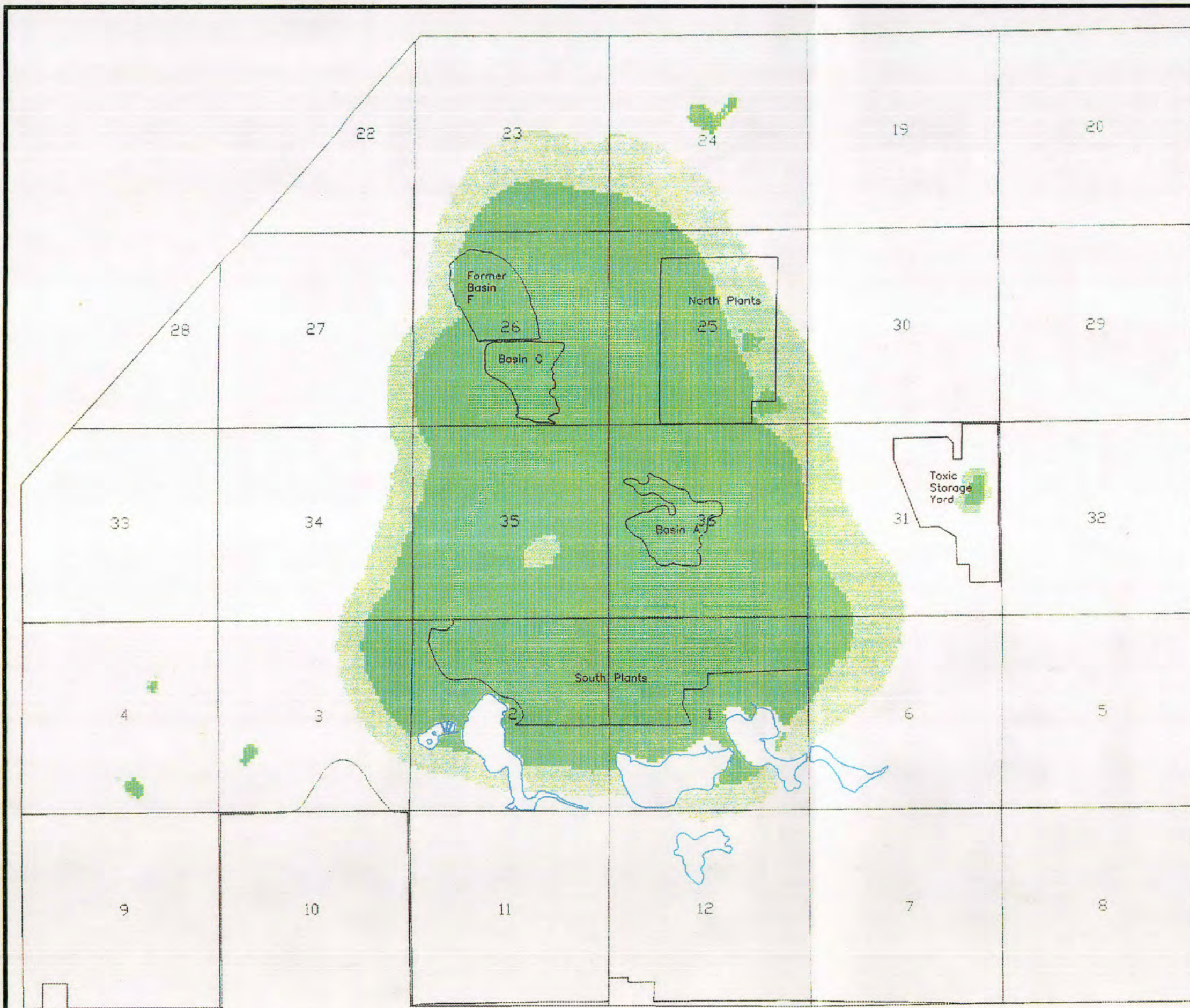
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Figure C.3-10

Number of Trophic Boxes with Soil Hazard
Quotients Greater than 1.0 for Aldrin/Dieldrin
Based on the Army Approach

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Legend

- 1 trophic box with HI > 1
- 2-4 trophic boxes with HI > 1
- 5-7 trophic boxes with HI > 1



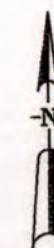
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31

Section Number



Section Line



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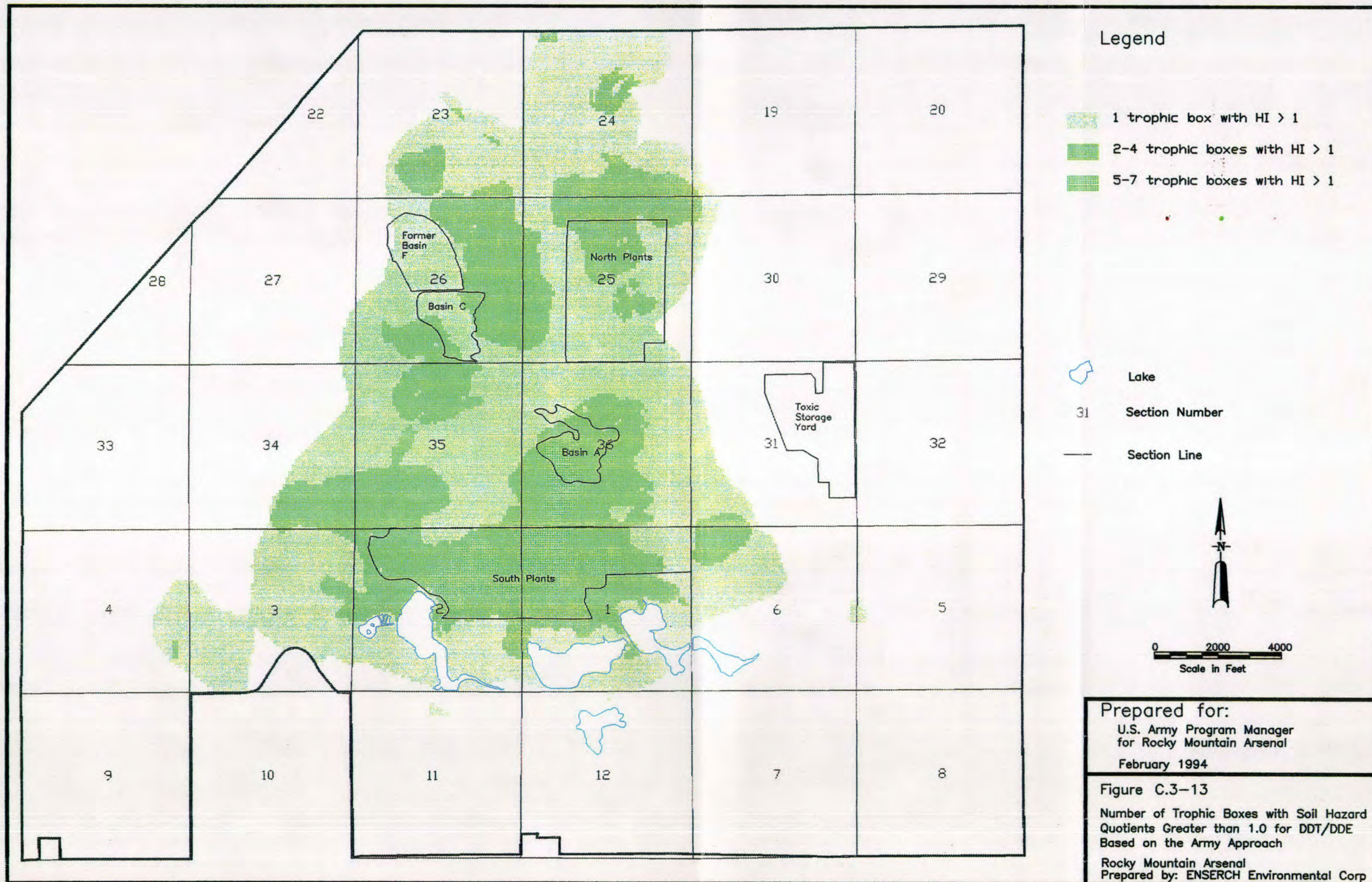
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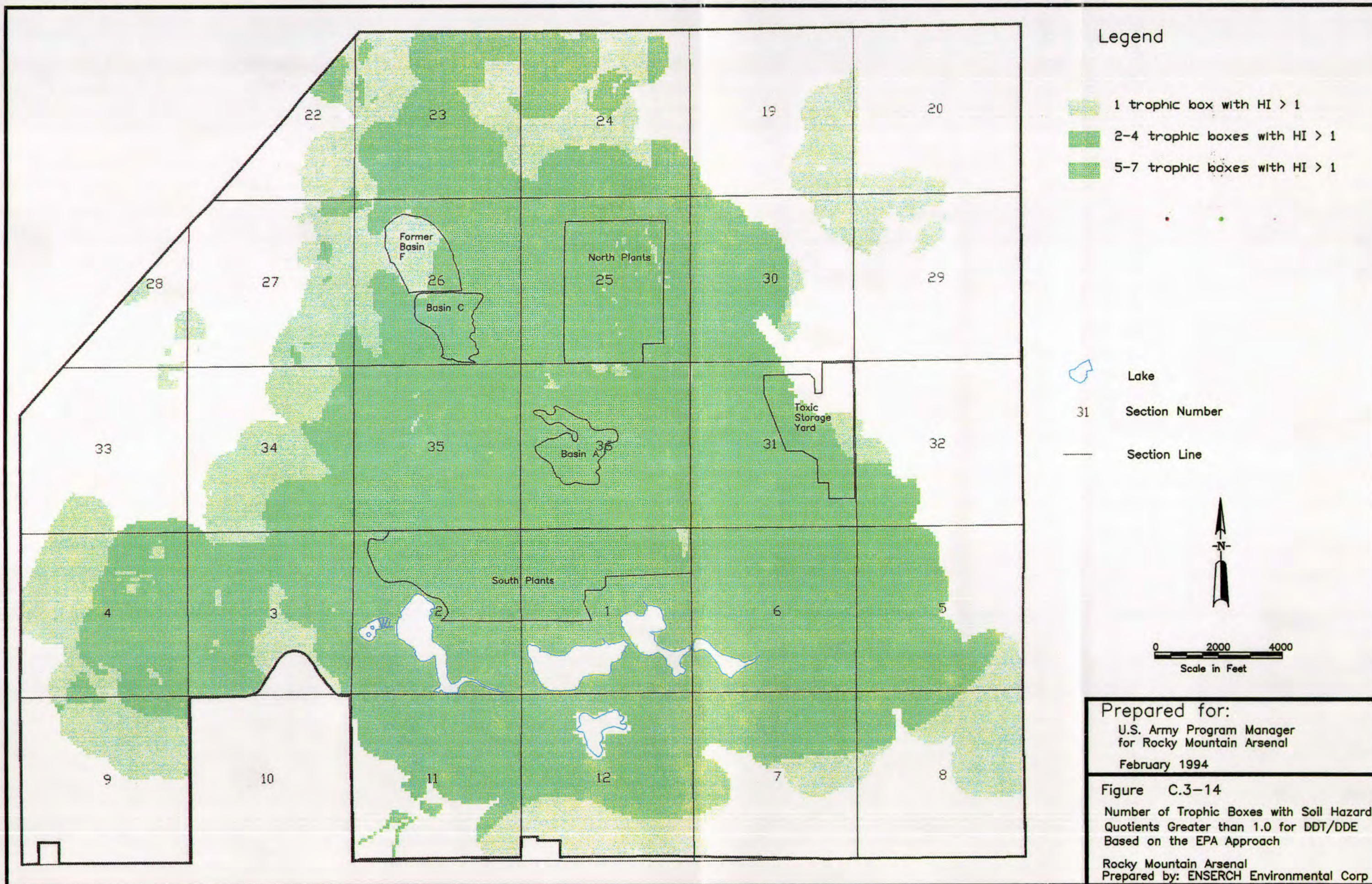
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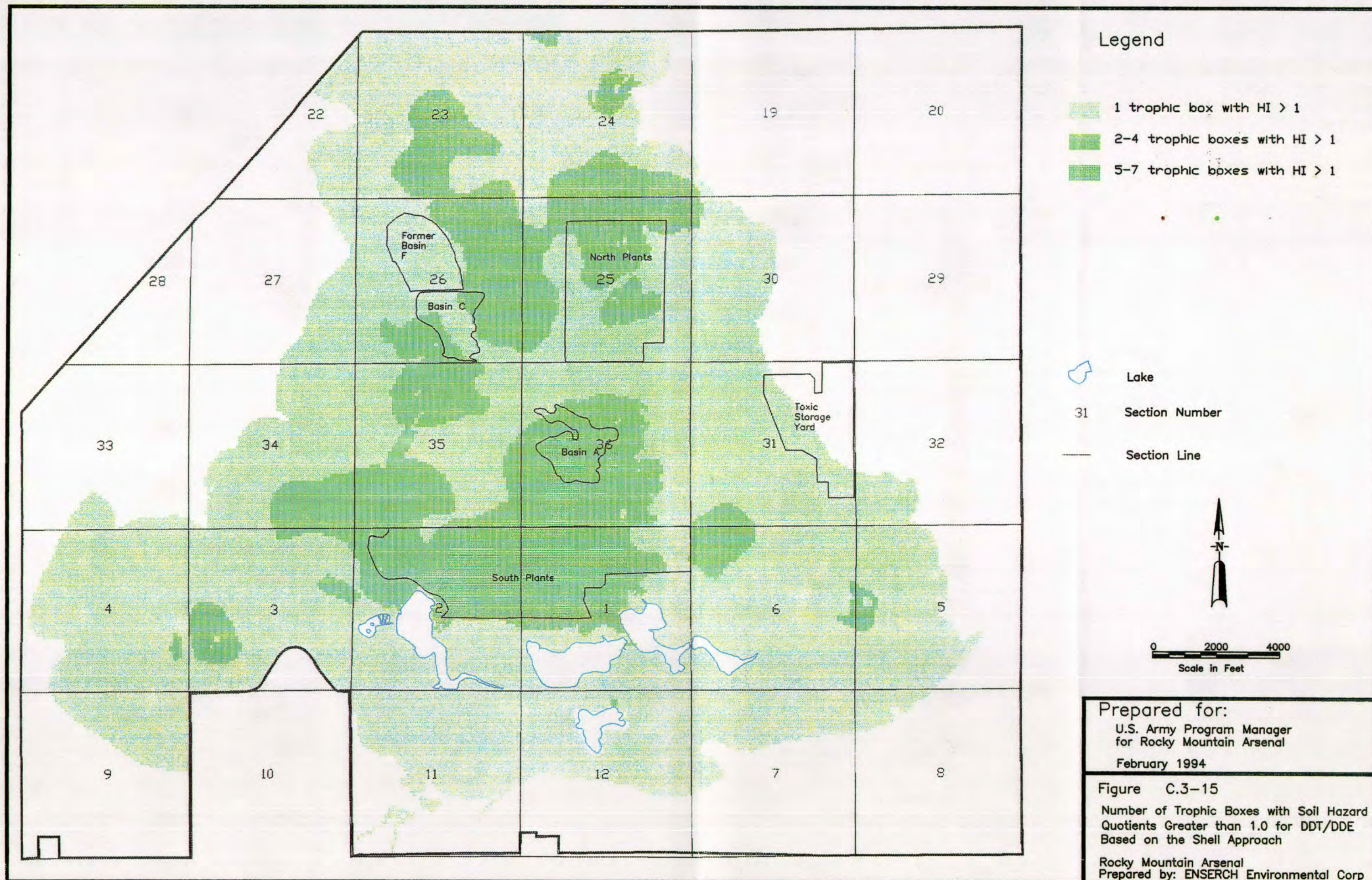
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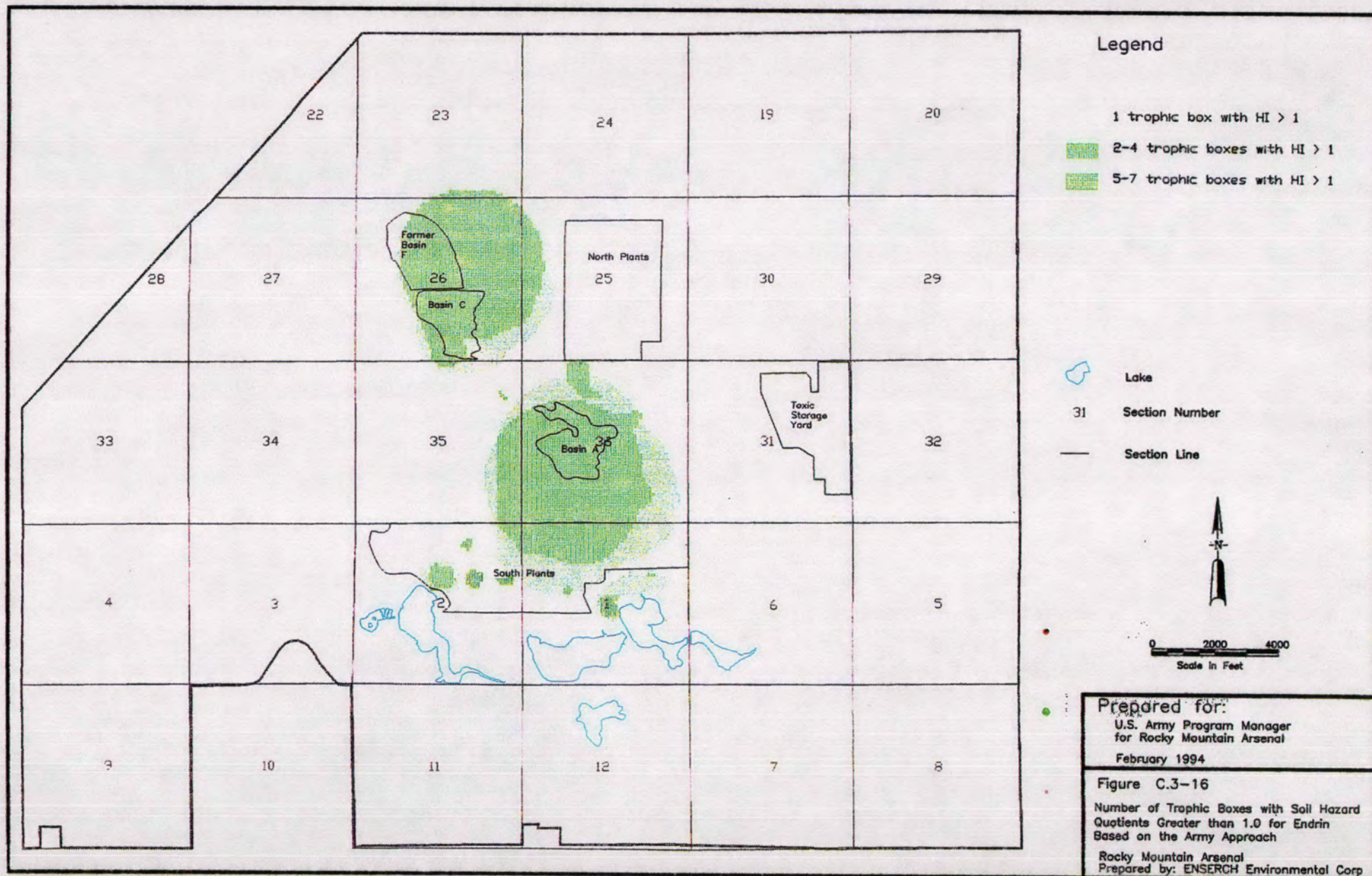
Number of Trophic Boxes with Soil Hazard
Quotients Greater than 1.0 for Aldrin/Dieldrin
Based on the Shell Approach

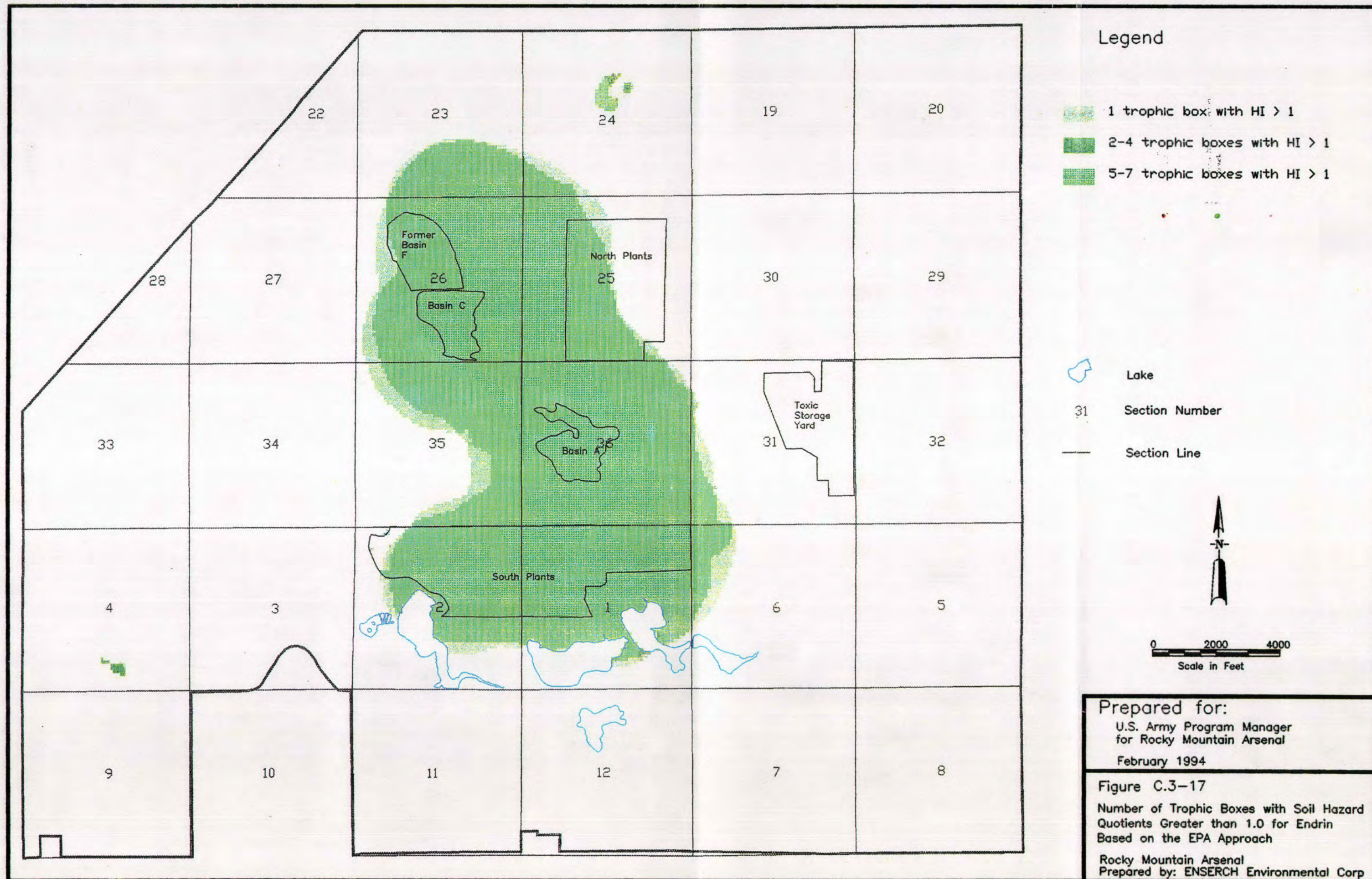
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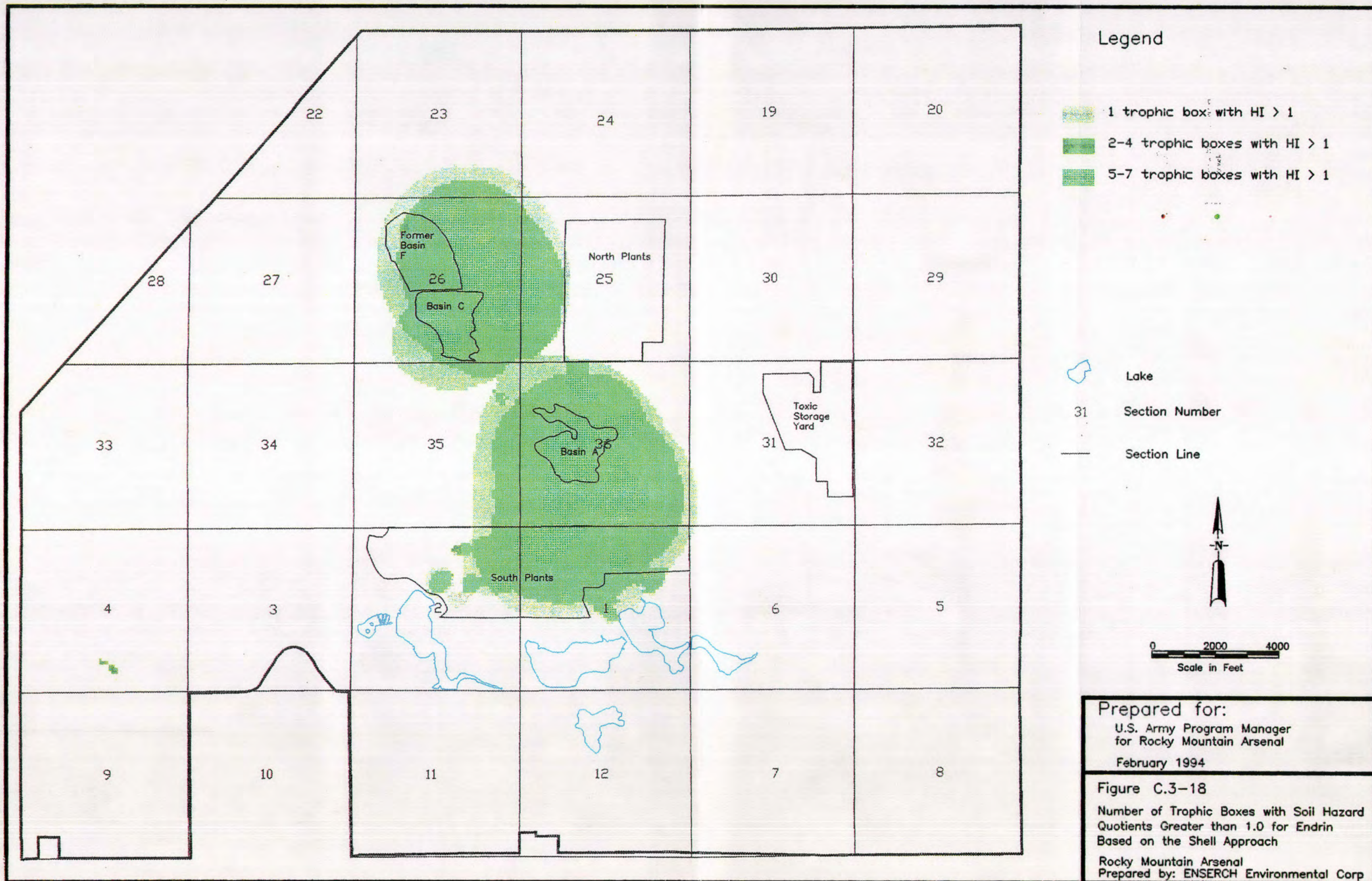


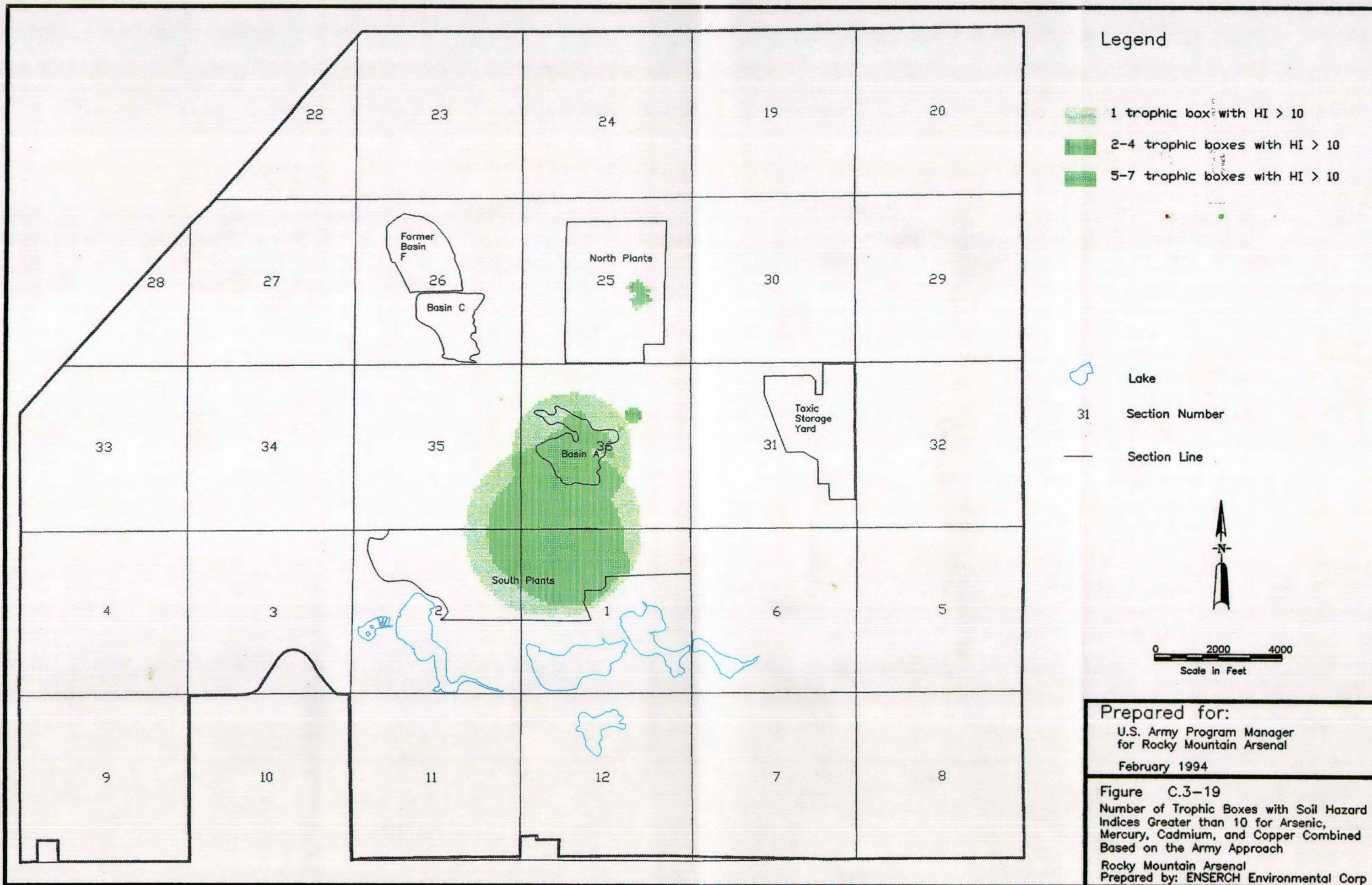


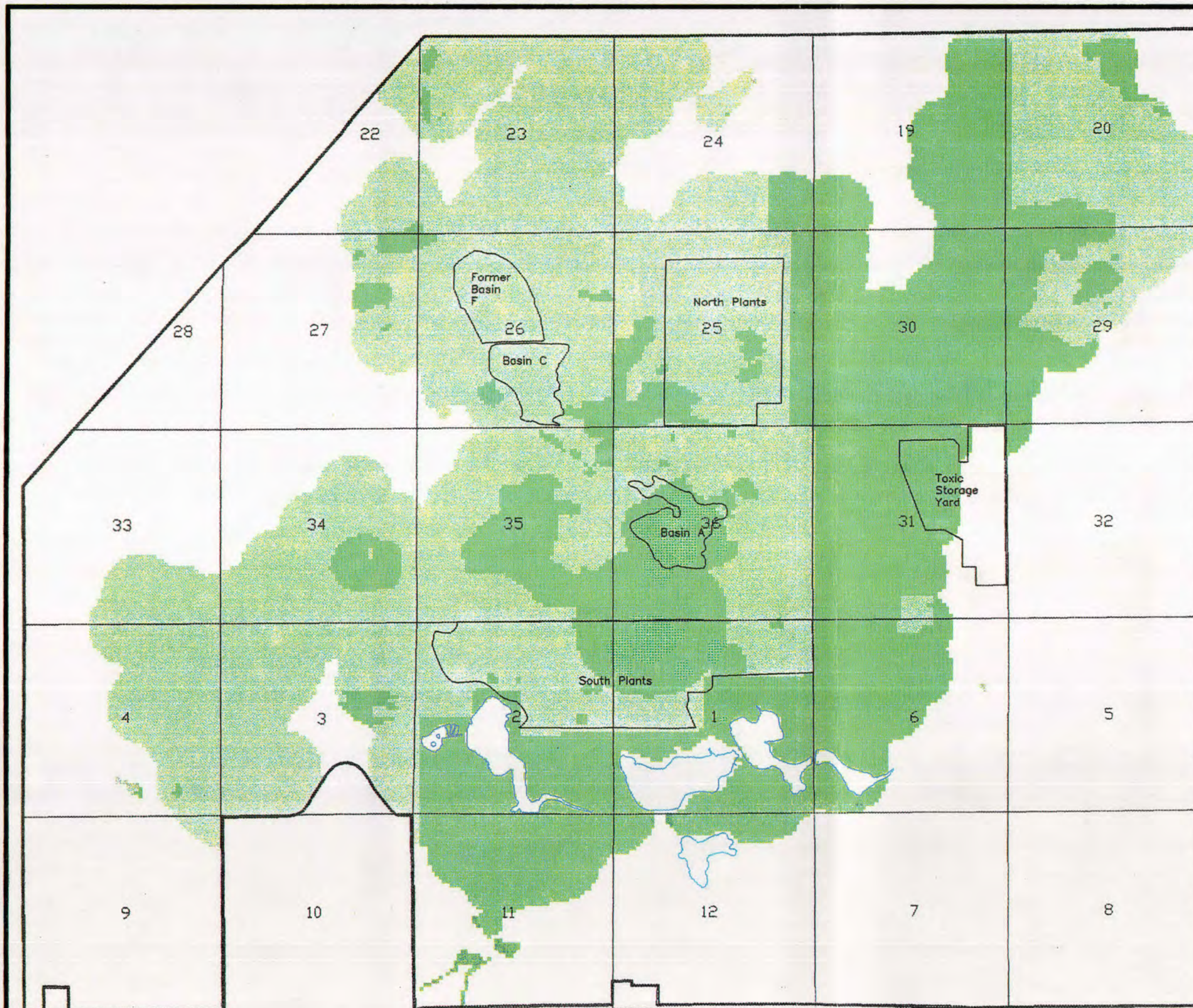








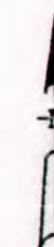




Legend

- 1 trophic box with HI > 10
- 2-4 trophic boxes with HI > 10
- 5-7 trophic boxes with HI > 10

- Lake
- 31 Section Number
- Section Line



0 2000 4000
Scale in Feet

Prepared for:

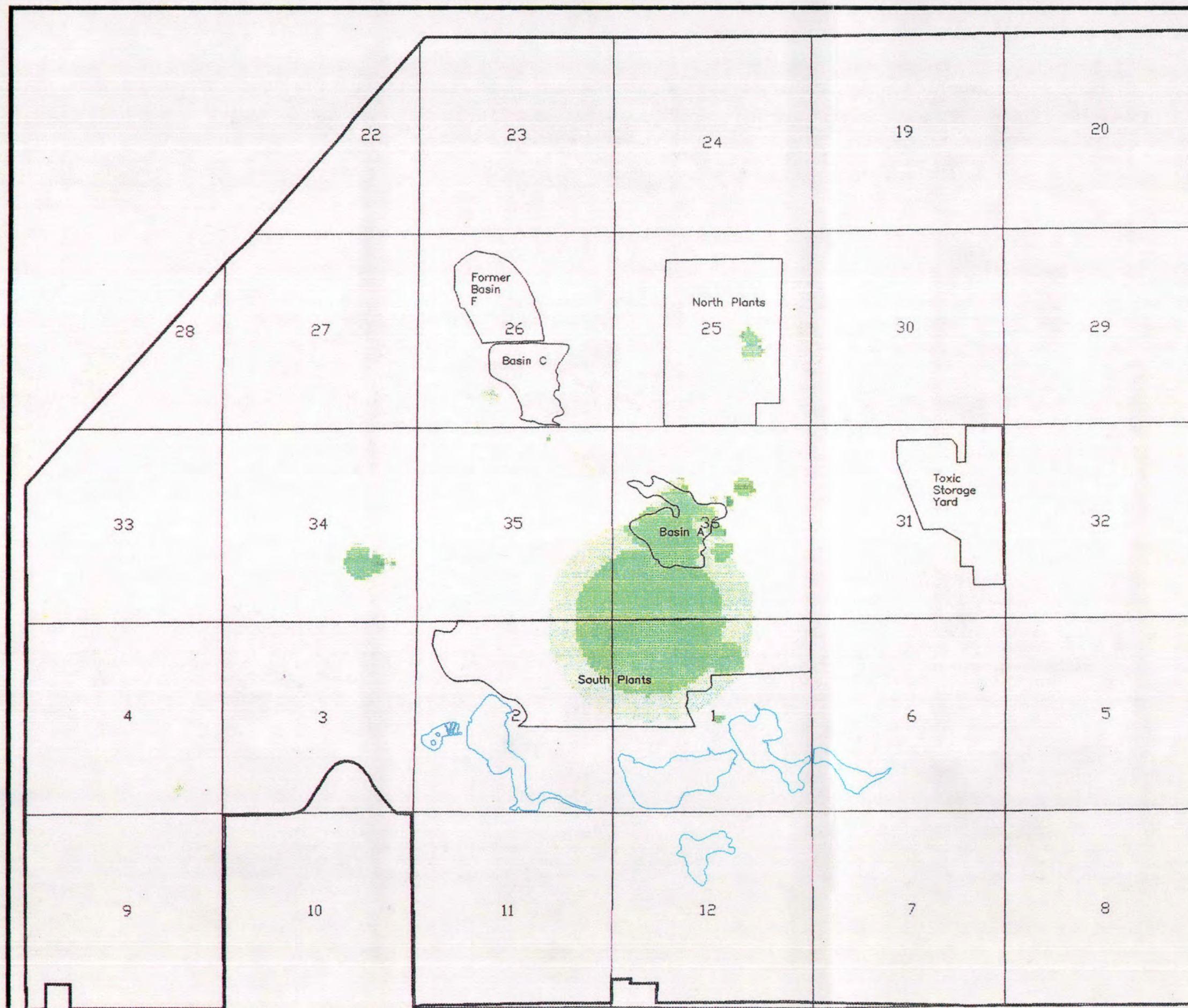
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Figure C.3-20

Number of Trophic Boxes with Soil Hazard
Indices Greater than 10 for Arsenic,
Mercury, Cadmium, and Copper Combined
Based on the EPA Approach

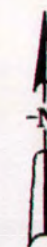
Rocky Mountain Arsenal
Prepared by: ENSERCH Environmental Corp



Legend

- 1 trophic box with HI > 10
- 2-4 trophic boxes with HI > 10
- 5-7 trophic boxes with HI > 10

- Lake
- 31 Section Number
- Section Line



0 2000 4000
Scale in Feet

Prepared for:

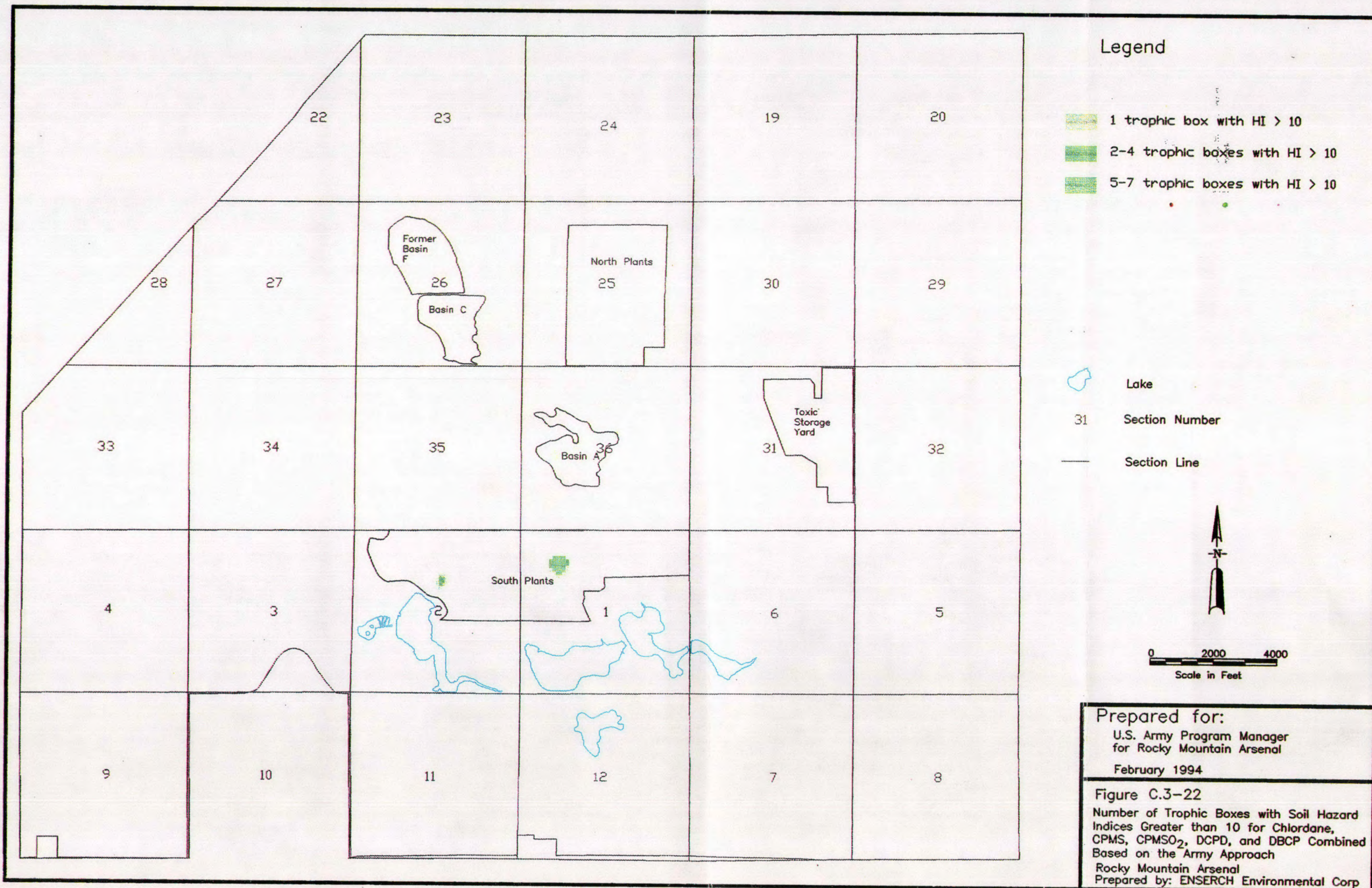
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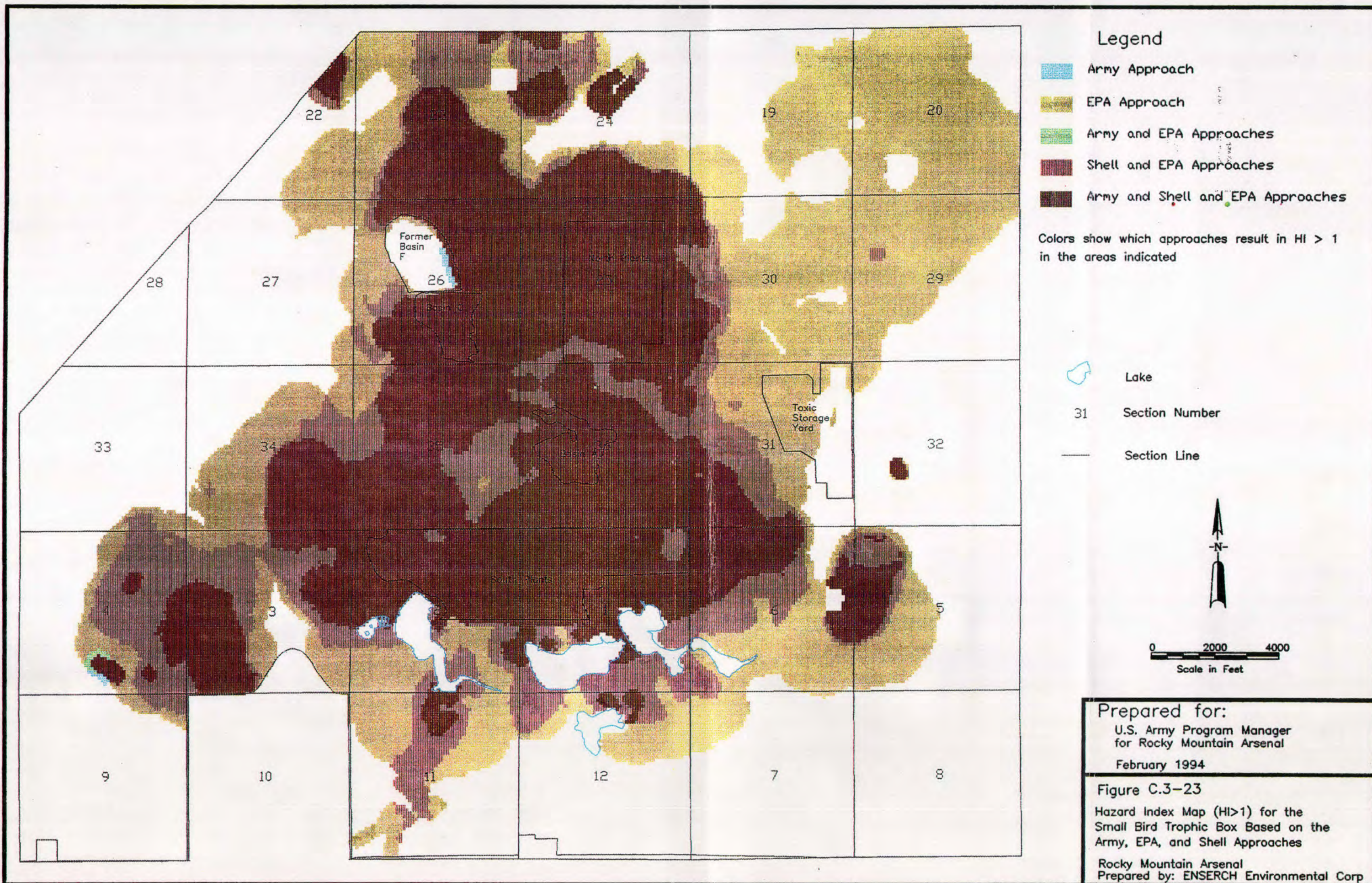
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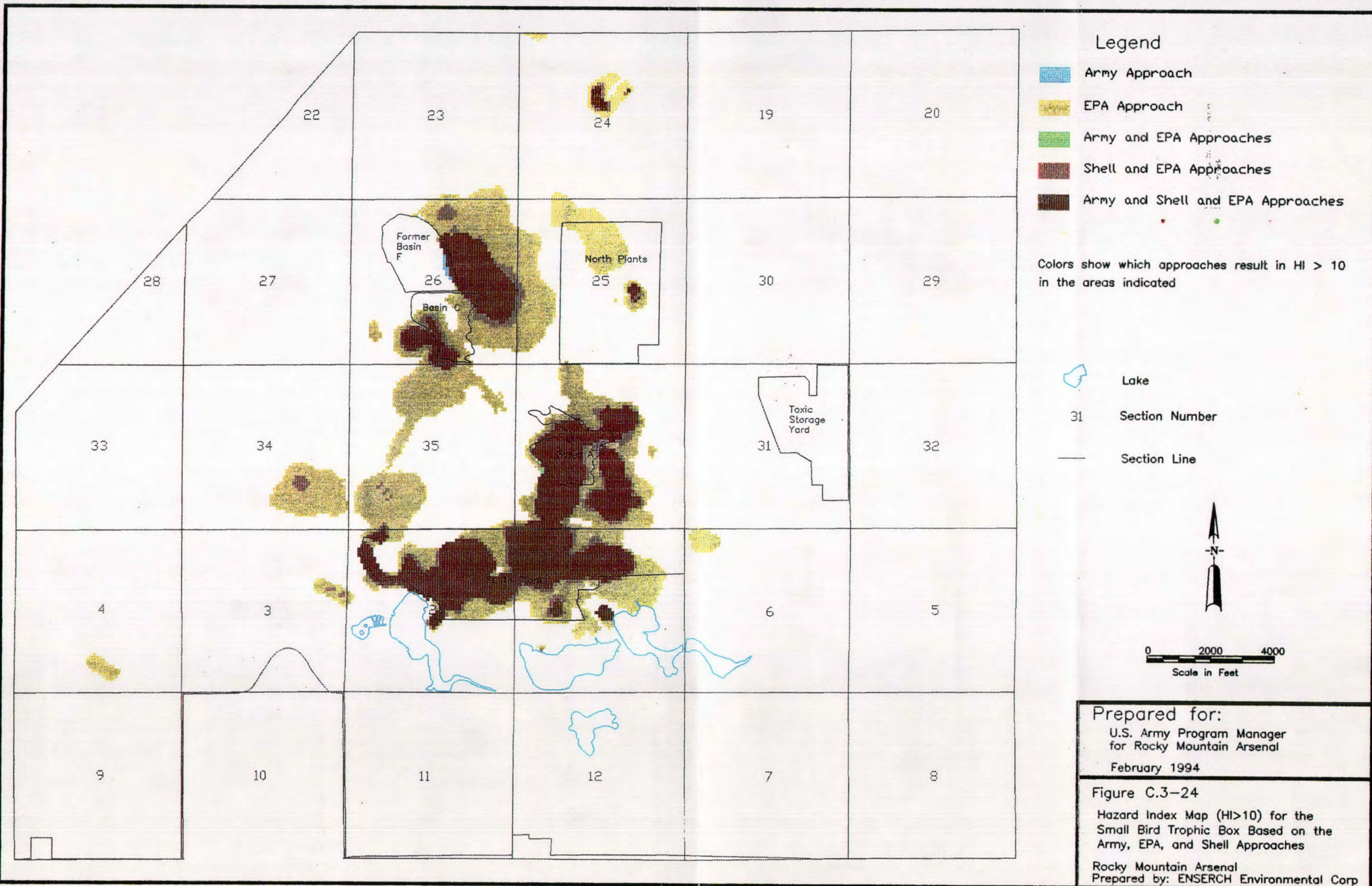
Figure C.3-21

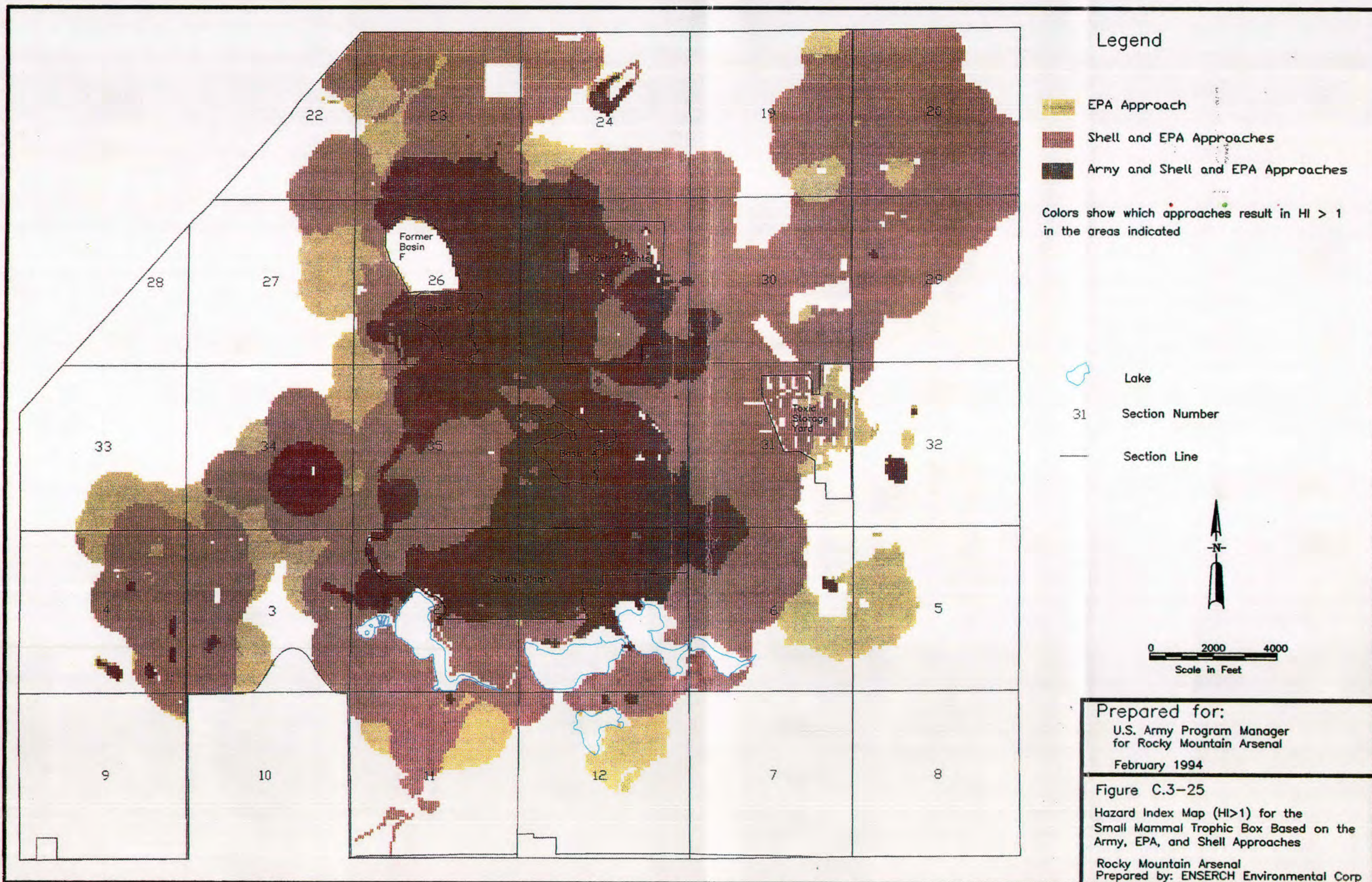
Number of Trophic Boxes with Soil Hazard Indices Greater than 10 for Arsenic, Mercury, Cadmium, and Copper Combined Based on the Shell Approach

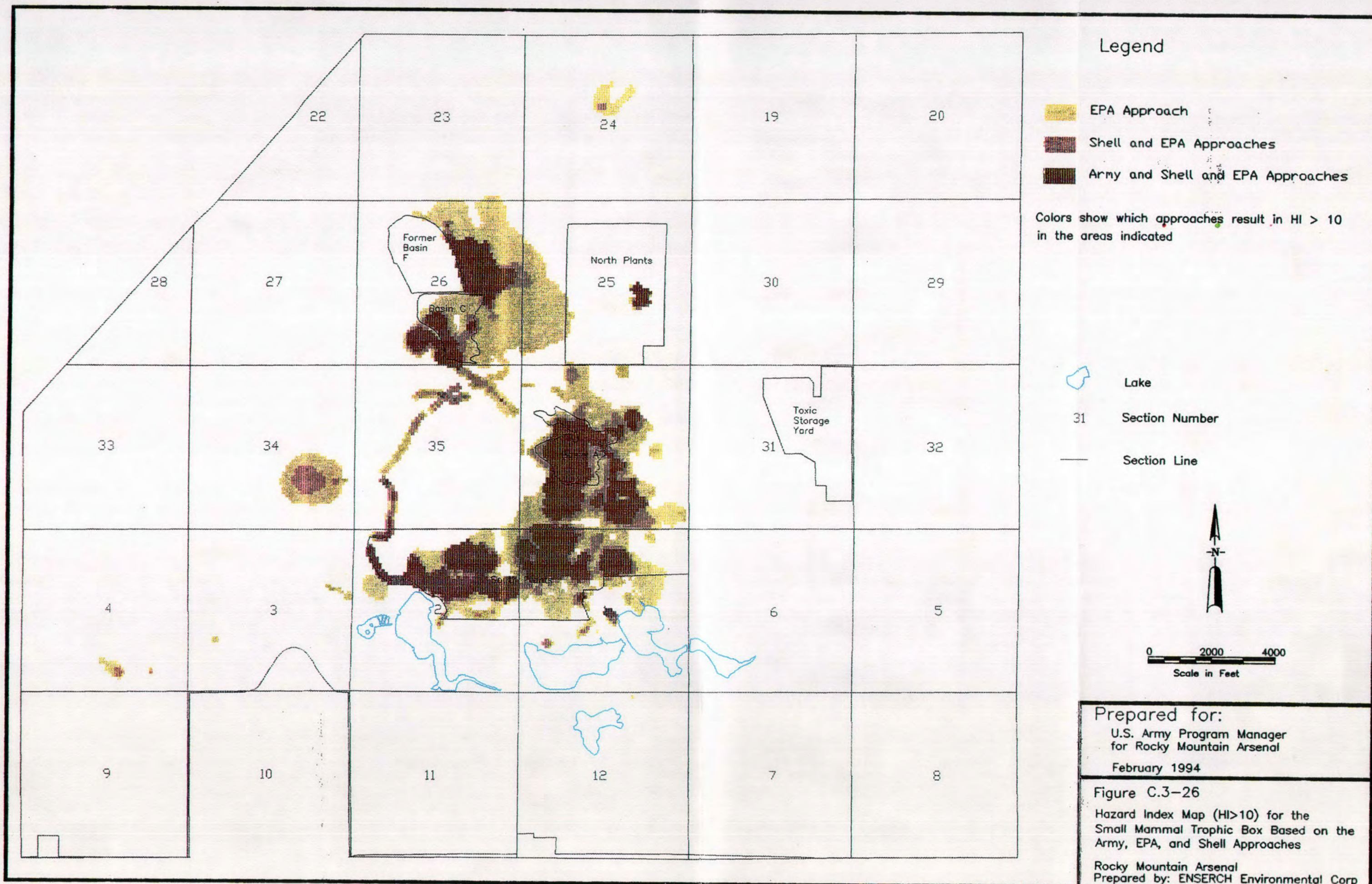
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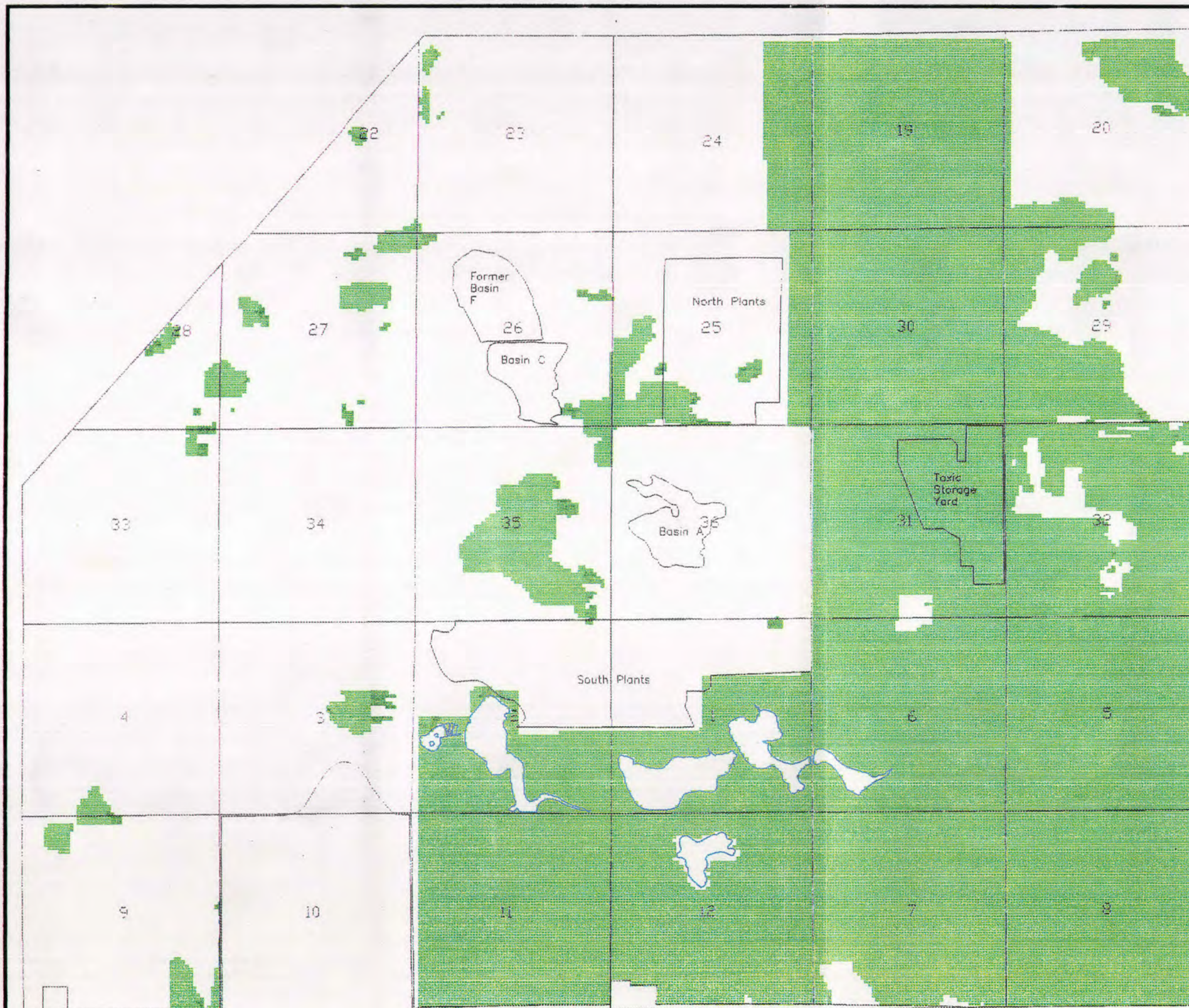












Legend

Army and EPA Approaches

Colors show which approaches result in $HQ > 1$ in the areas indicated



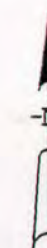
Lake

31

Section Number



Section Line



0 2000 4000
Scale in Feet

Prepared for:

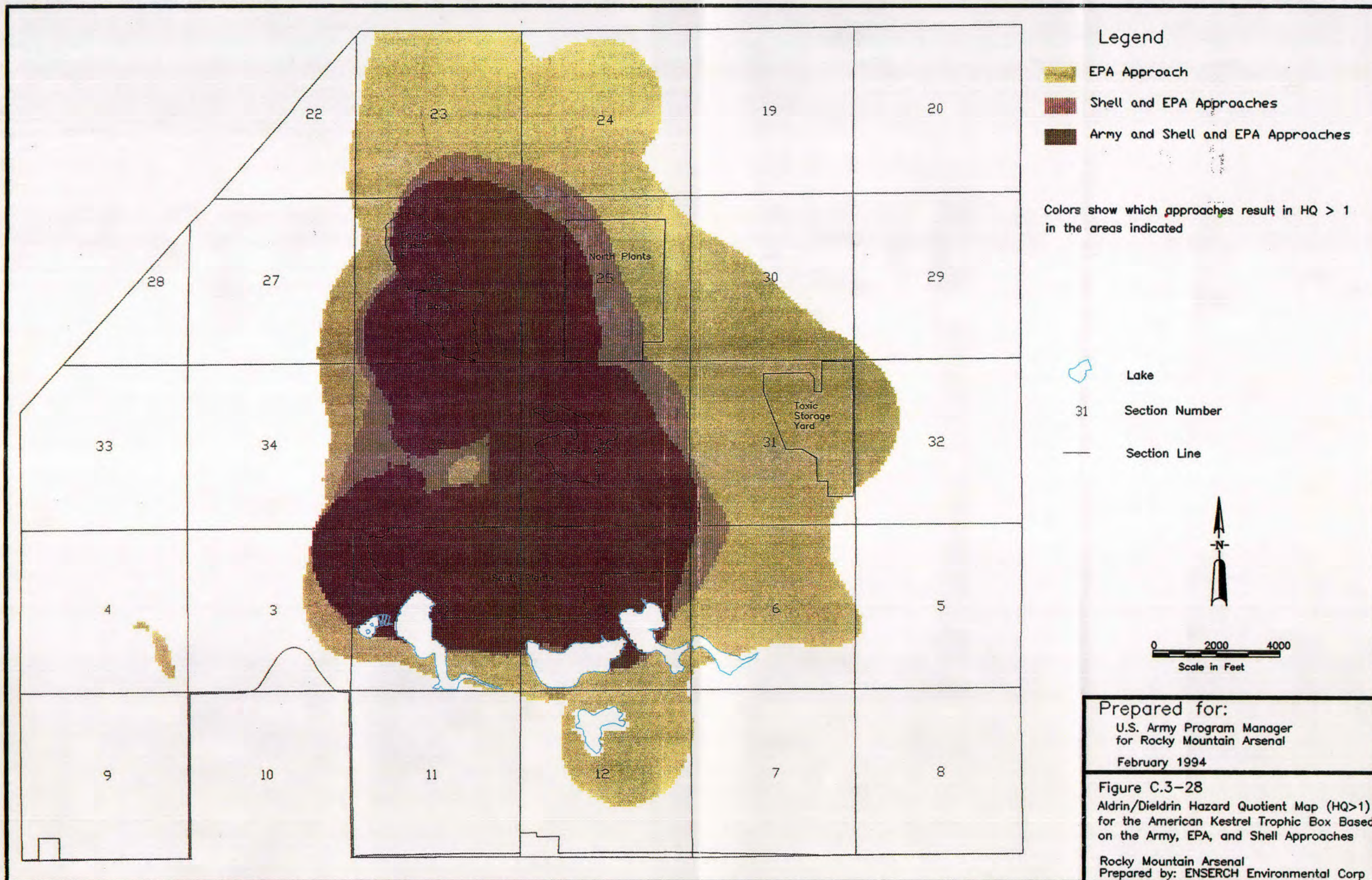
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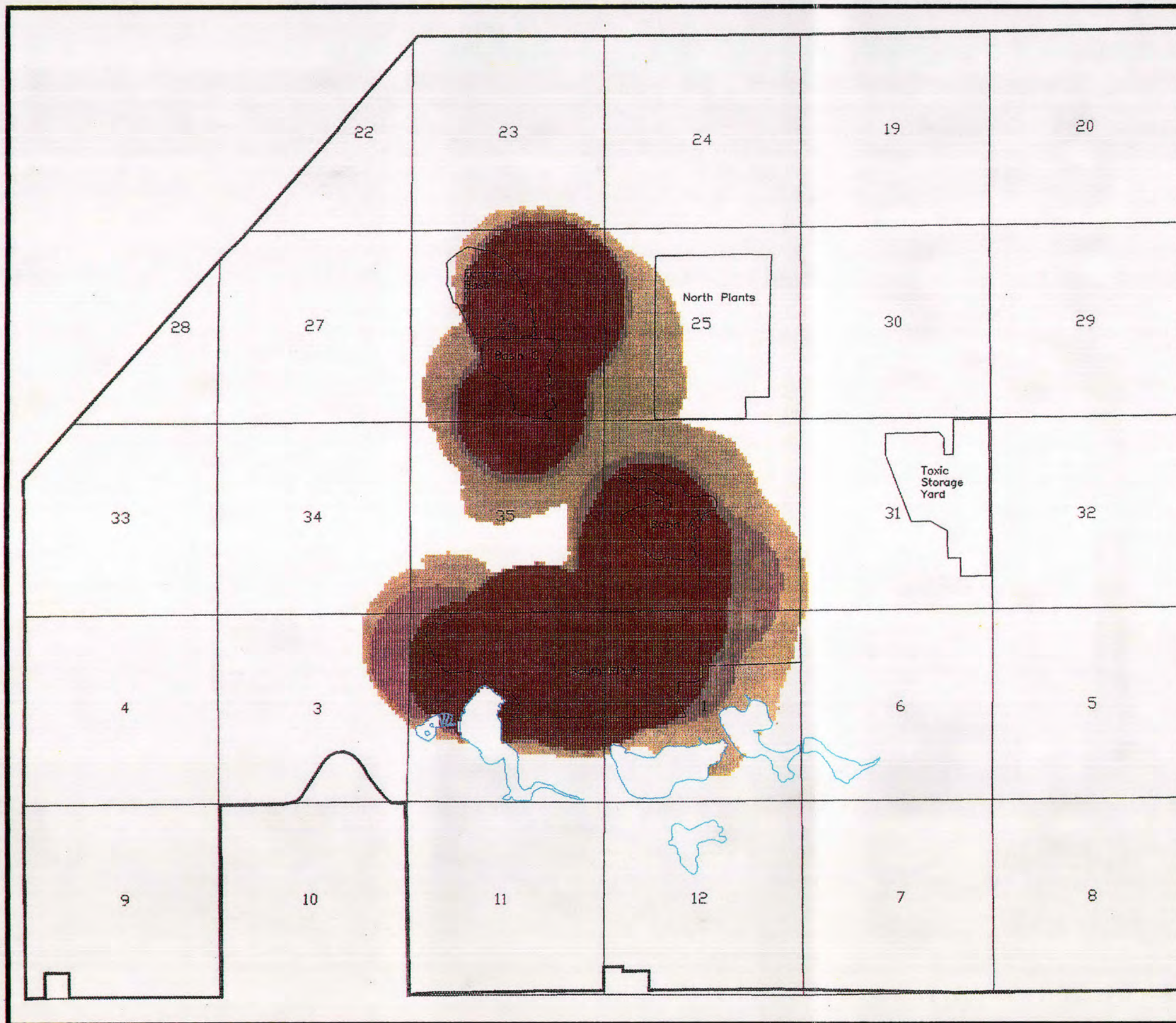
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Figure C.3-27

Aldrin/Dieldrin Hazard Quotient Map ($HQ > 1$)
for the Bald Eagle Trophic Box Based on
the Army, EPA, and Shell Approaches

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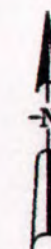


Legend

- EPA Approach
- Shell and EPA Approaches
- Army and Shell and EPA Approaches

Colors show which approaches result in $HQ > 10$ in the areas indicated

- Lake
- Section Number
- Section Line



0 2000 4000
Scale in Feet

Prepared for:

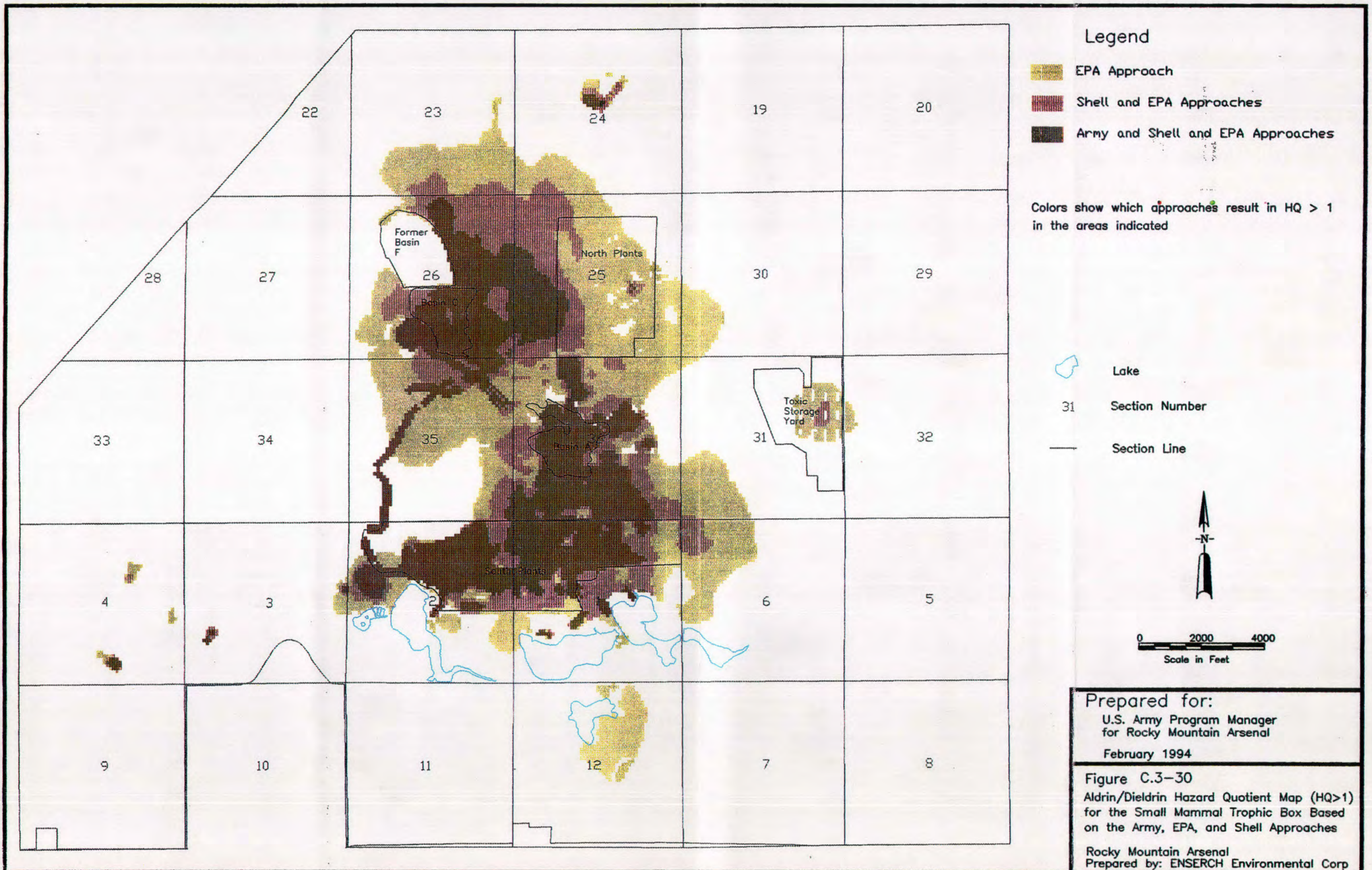
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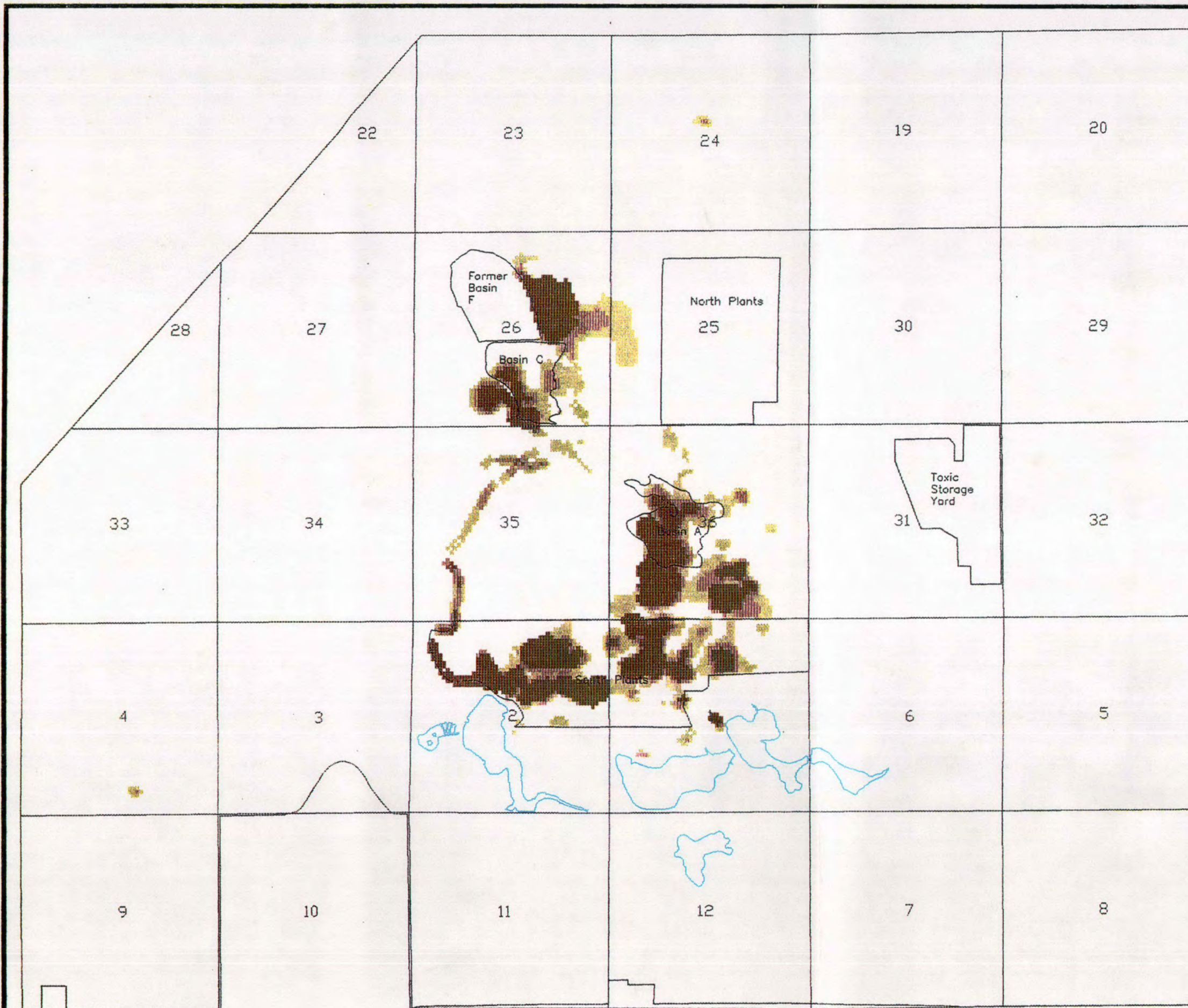
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Figure C.3-29

Aldrin/Dieldrin Hazard Quotient Map ($HQ > 10$)
for the American Kestrel Trophic Box Based
on the Army, EPA, and Shell Approaches

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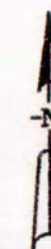


Legend

- EPA Approach
- Shell and EPA Approaches
- Army and Shell and EPA Approaches

Colors show which approaches result in HQ > 10 in the areas indicated

- Lake
- Section Number
- Section Line



0 2000 4000
Scale in Feet

Prepared for:

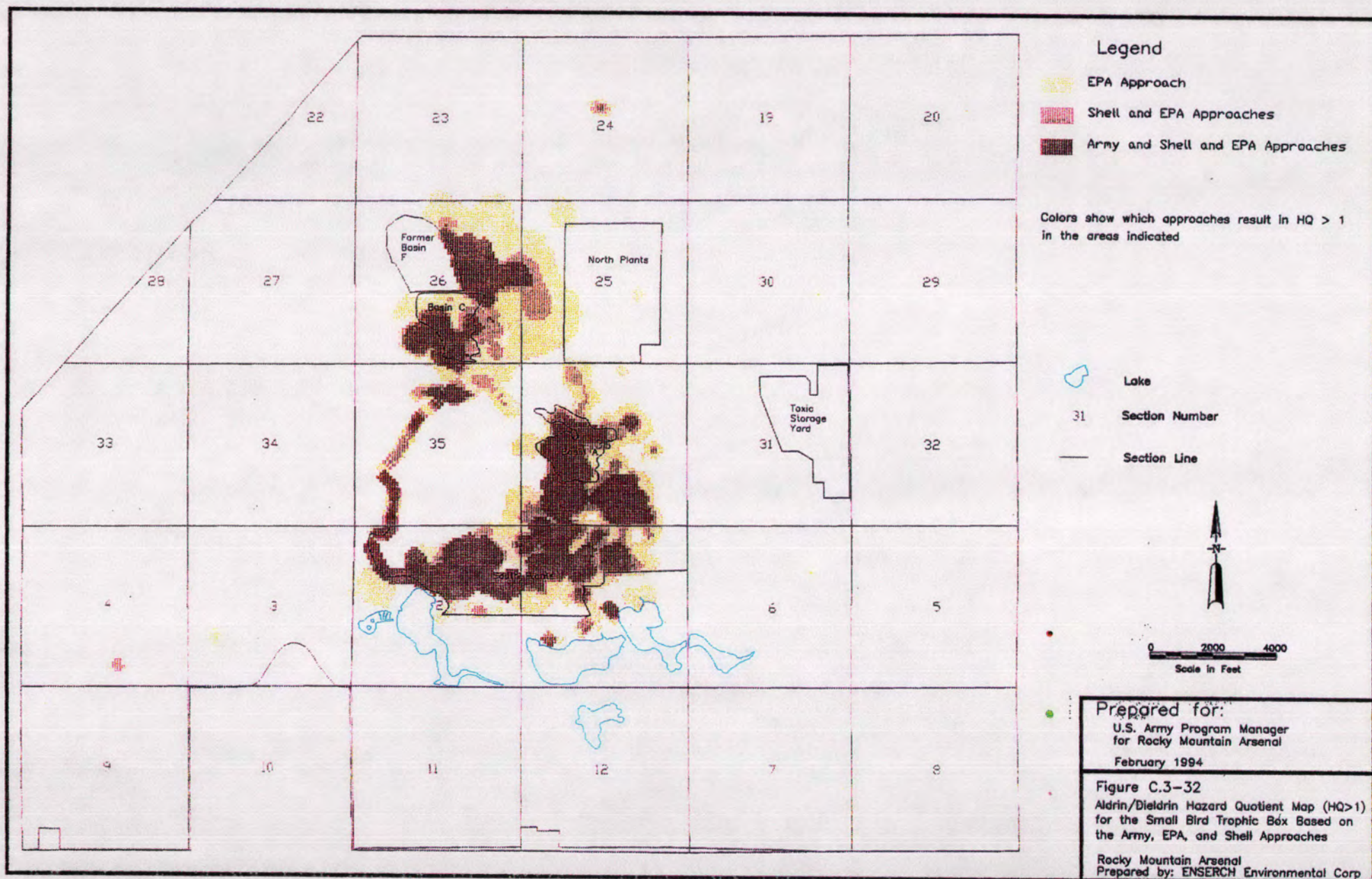
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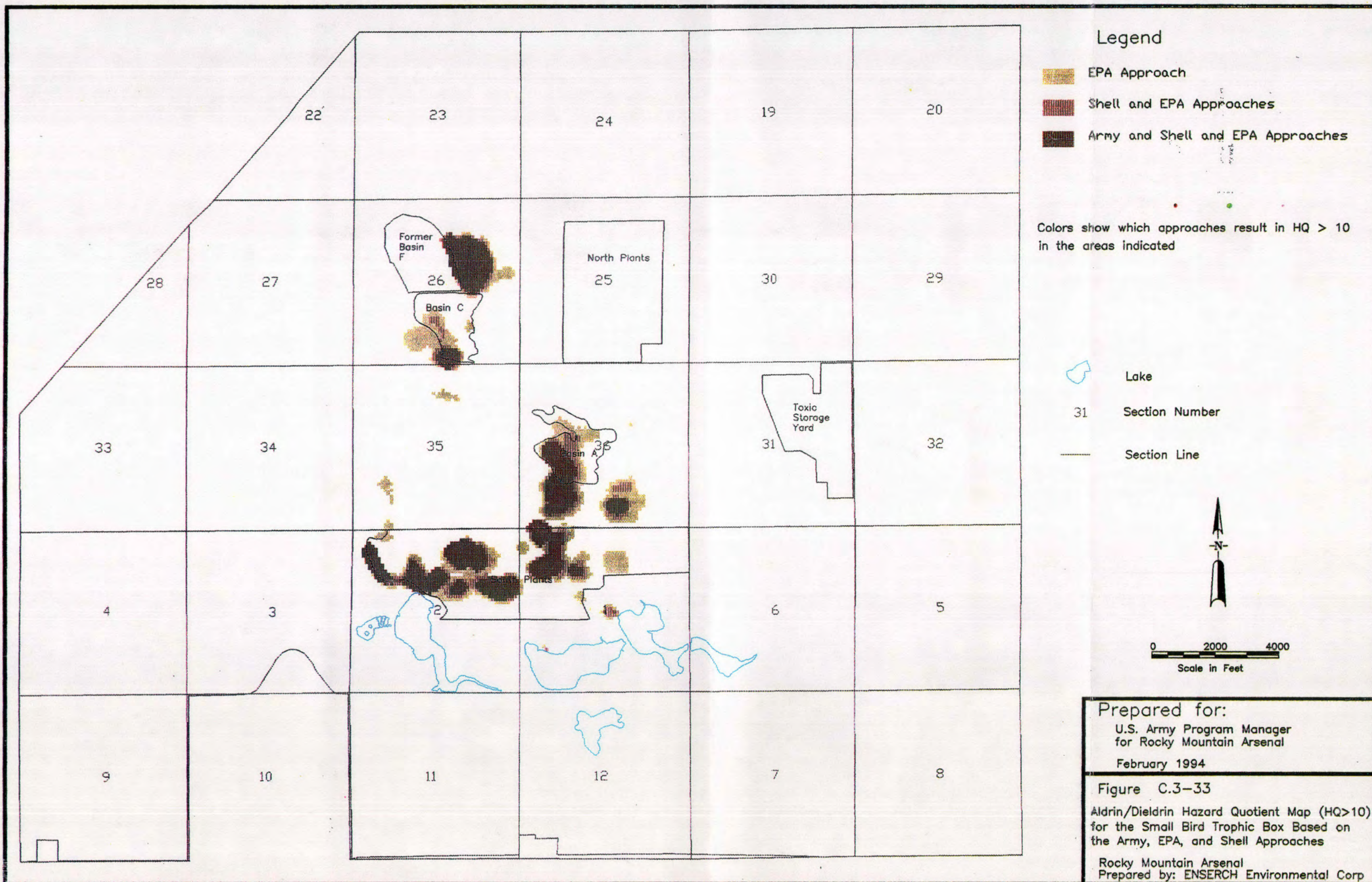
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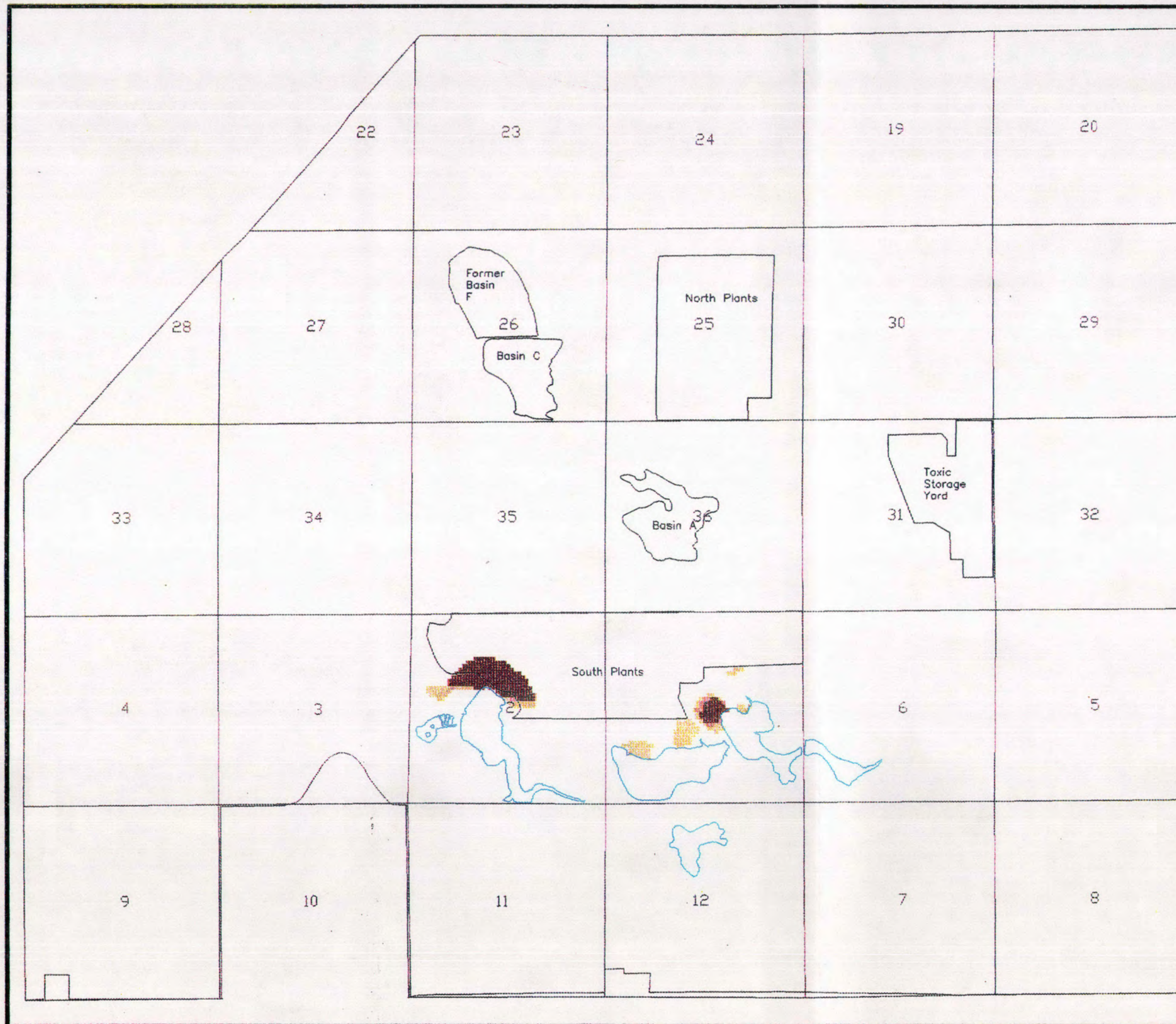
Figure C.3-31

Aldrin/Dieldrin Hazard Quotient Map (HQ>10)
for the Small Mammal Trophic Box Based
on the Army, EPA, and Shell Approaches

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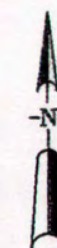


Legend

- EPA Approach
- Shell and EPA Approaches
- Army and Shell and EPA Approaches

Colors show which approaches result in $HQ > 1$ in the areas indicated

- Lake
- Section Number
- Section Line



0 2000 4000
Scale in Feet

Prepared for:

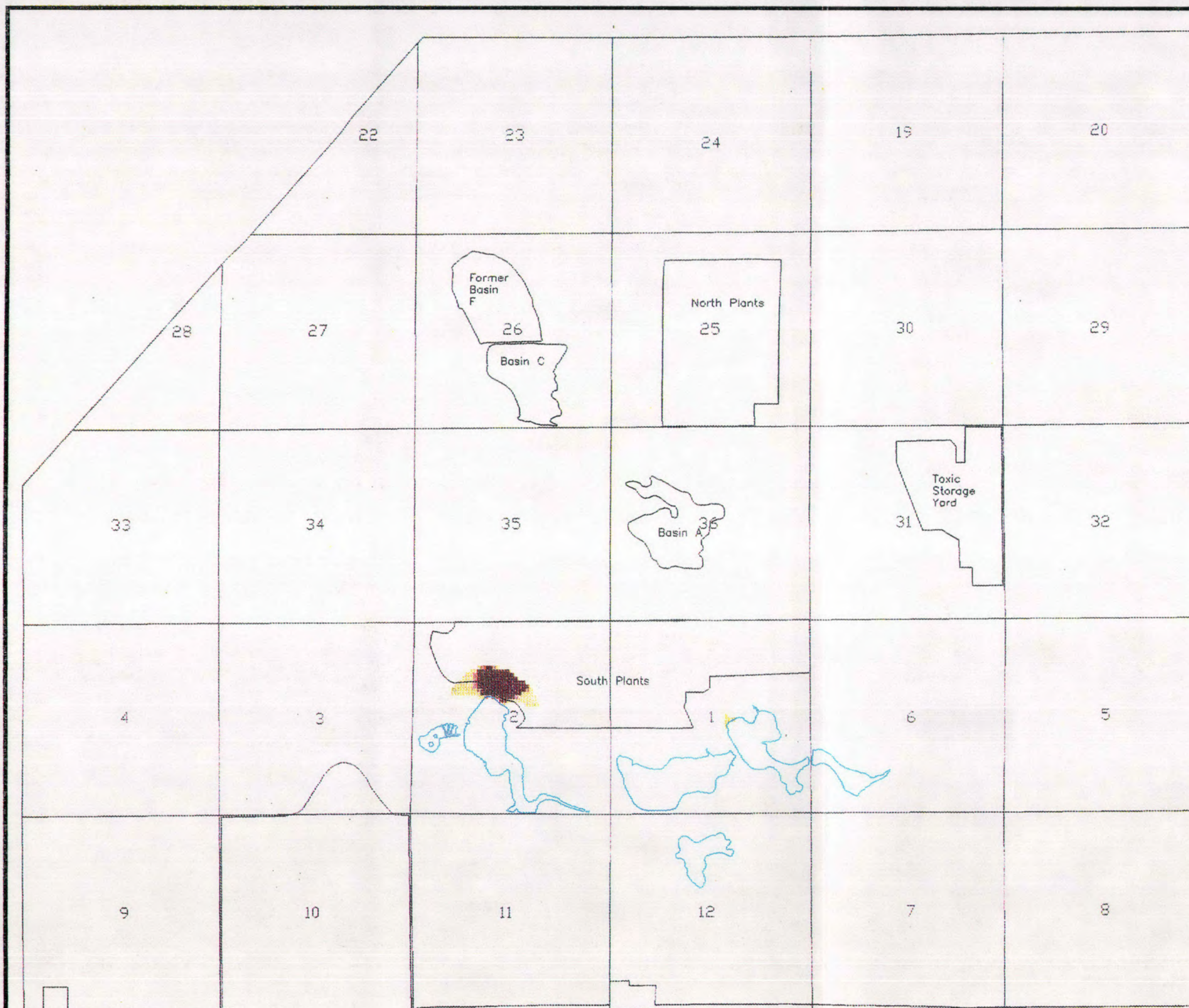
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Figure C.3-34

Aldrin/Dieldrin Hazard Quotient Map ($HQ > 1$)
for the Shorebird Trophic Box Based on
the Army, EPA, and Shell Approaches




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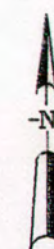


Legend

-  EPA Approach
-  Shell and EPA Approaches
-  Army and Shell and EPA Approaches

Colors show which approaches result in HQ > 10 in the areas indicated

-  Lake
-  Section Number
-  Section Line



0 2000 4000
Scale in Feet

Prepared for:

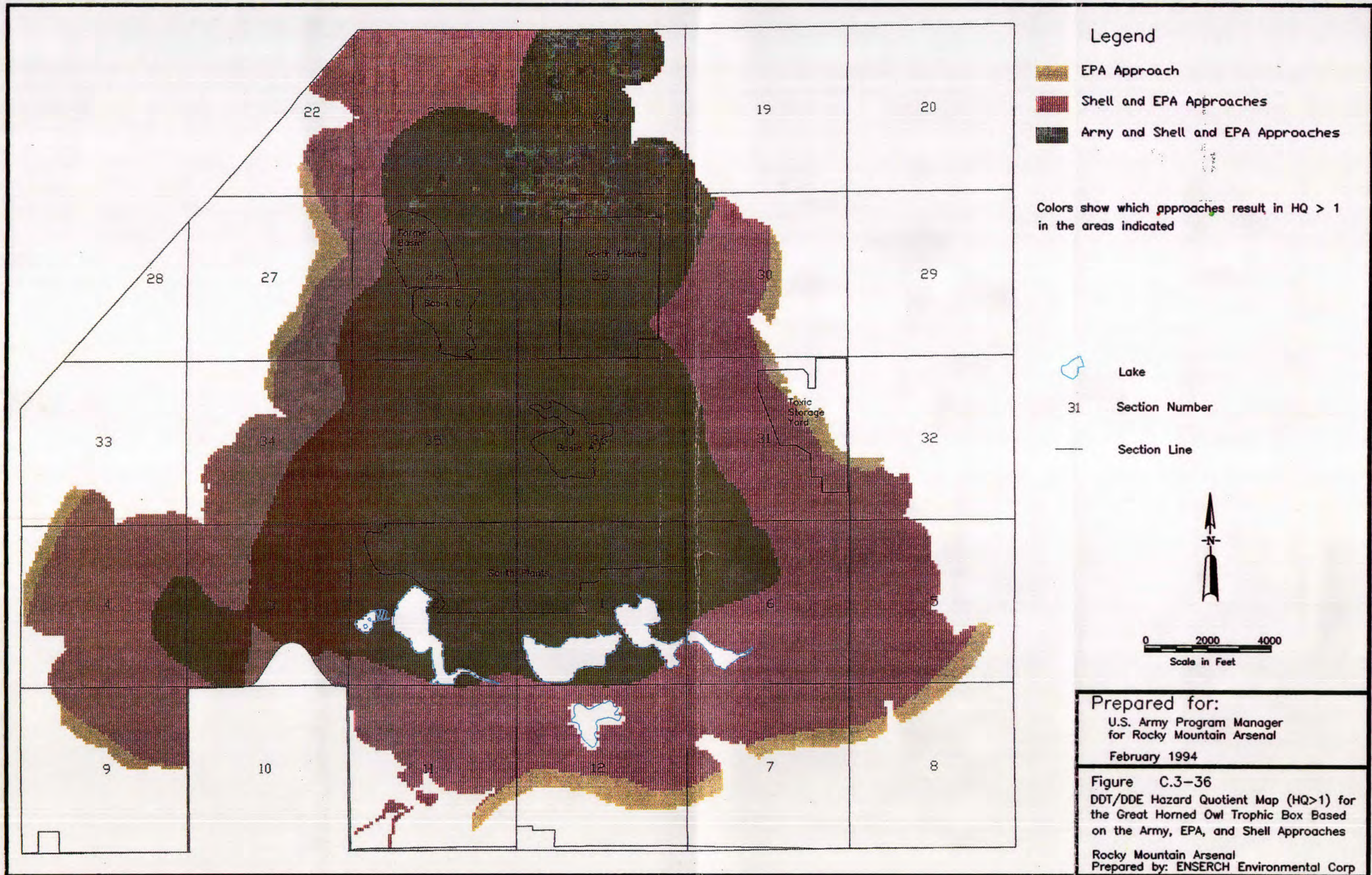
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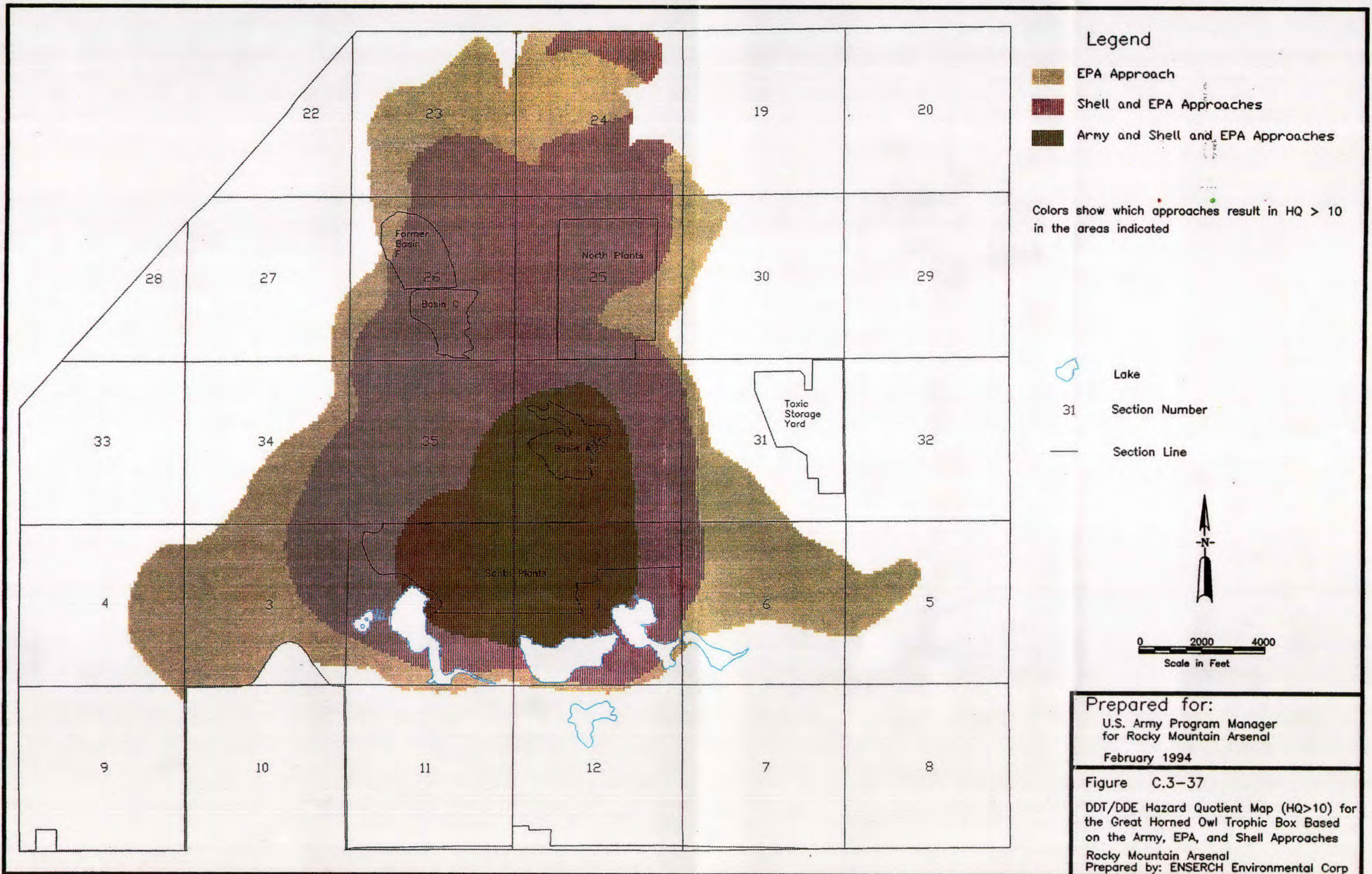
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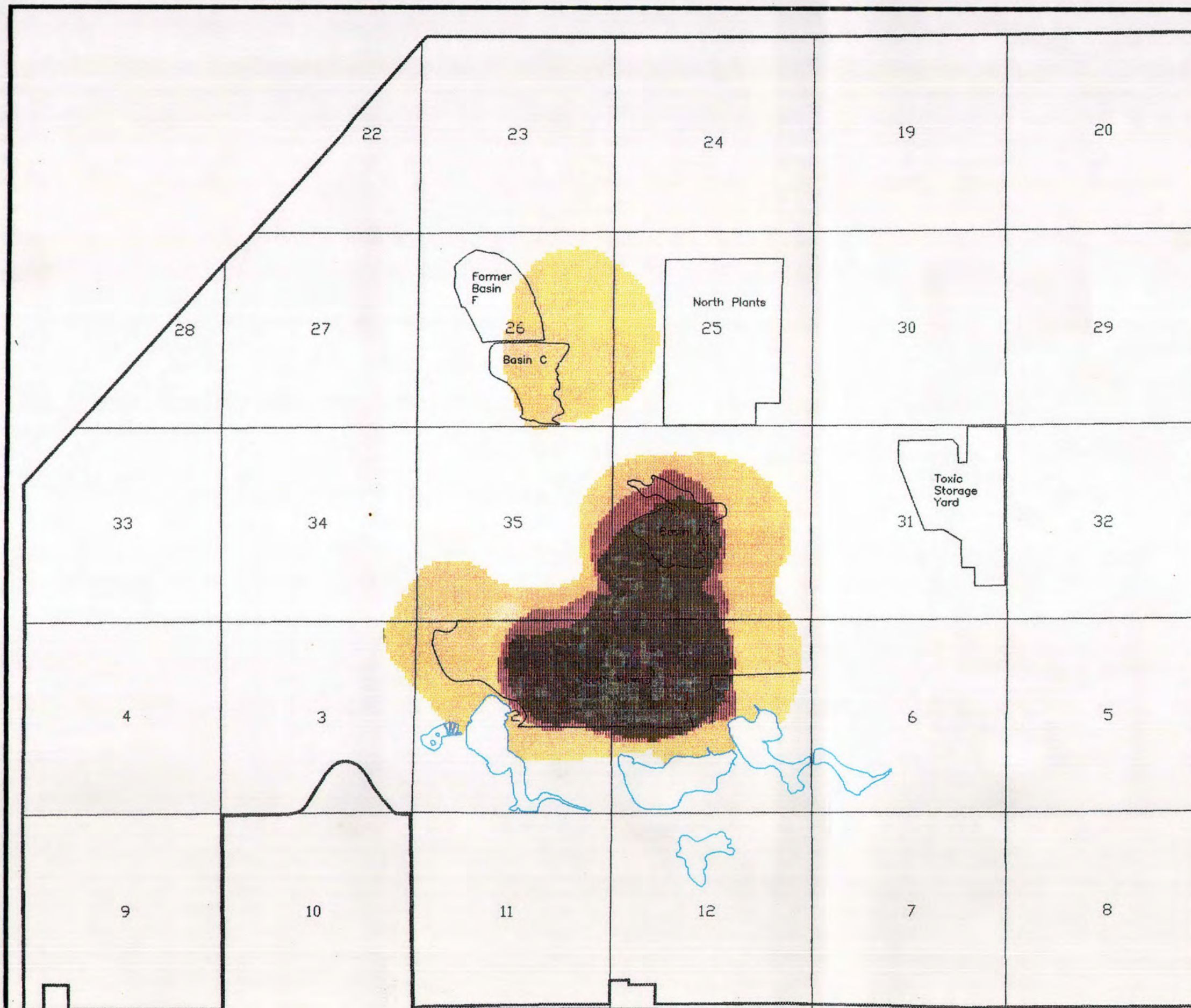
Figure C.3-35

Aldrin/Dieldrin Hazard Quotient Map (HQ>10)
for the Shorebird Trophic Box Based on
the Army, EPA, and Shell Approaches




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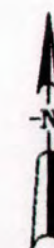


Legend

-  EPA Approach
-  Shell and EPA Approaches
-  Army and Shell and EPA Approaches

Colors show which approaches result in HQ > 1 in the areas indicated

-  Lake
- 31 Section Number
- Section Line



0 2000 4000
Scale in Feet

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Figure C.3-38

DDT/DDE Hazard Quotient Map (HQ>1) for
the American Kestrel Trophic Box Based on
the Army, EPA, and Shell Approaches

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