

Appendix A

Beecher Lake Aquatic Plant Survey Data
2008

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
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STATS

INDIVIDUAL SPECIES STATS:

- 7 Frequency of occurrence within vegetated areas (%)
- 8 Frequency of occurrence at sites shallower than maximum depth of plants
- 9 Relative Frequency (%)
- 10 Relative Frequency (squared)
- 11 Number of sites where species found
- 12 Average Rare Fullness
- 13 #visual sightings
- 14 present (visual or collected)

EXOTICS SPECIES STATS:

- 17 # at surface
- 18 # within 1 ft of surface
- 19 # > 1 ft from surface
- 20 # sparse
- 21 # dense
- 22 # unknown

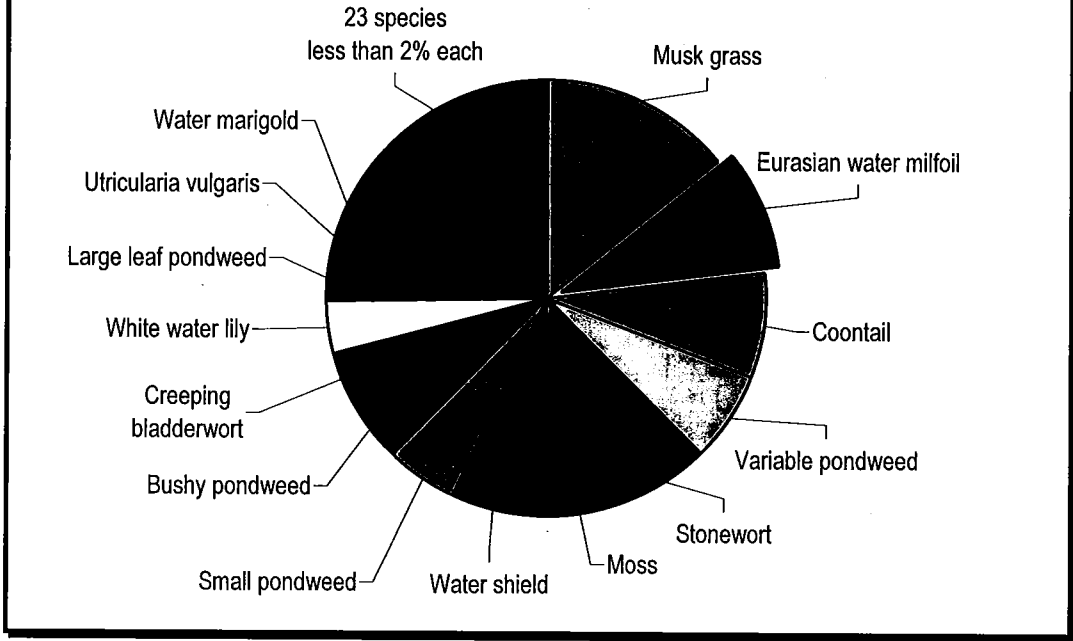
SUMMARY STATS:

- 24 Total number of points sampled
- 25 Total number of sites with vegetation
- 26 Total number of sites shallower than maximum depth of plants
- 27 Frequency of occurrence at sites shallower than maximum depth of plants
- 28 Simpson Diversity Index
- 29 Maximum depth of plants (ft)
- 30 Number of sites sampled using rake on Rope (R)
- 31 Number of sites sampled using rake on Pole (P)
- 32 Average number of all species per site (shallower than max depth)
- 33 Average number of all species per site (veg. sites only)
- 34 Average number of native species per site (shallower than max depth)
- 35 Average number of native species per site (veg. sites only)
- 36 Species Richness
- 37 Species Richness (including visuals)
- 38 Species Richness (including visuals)

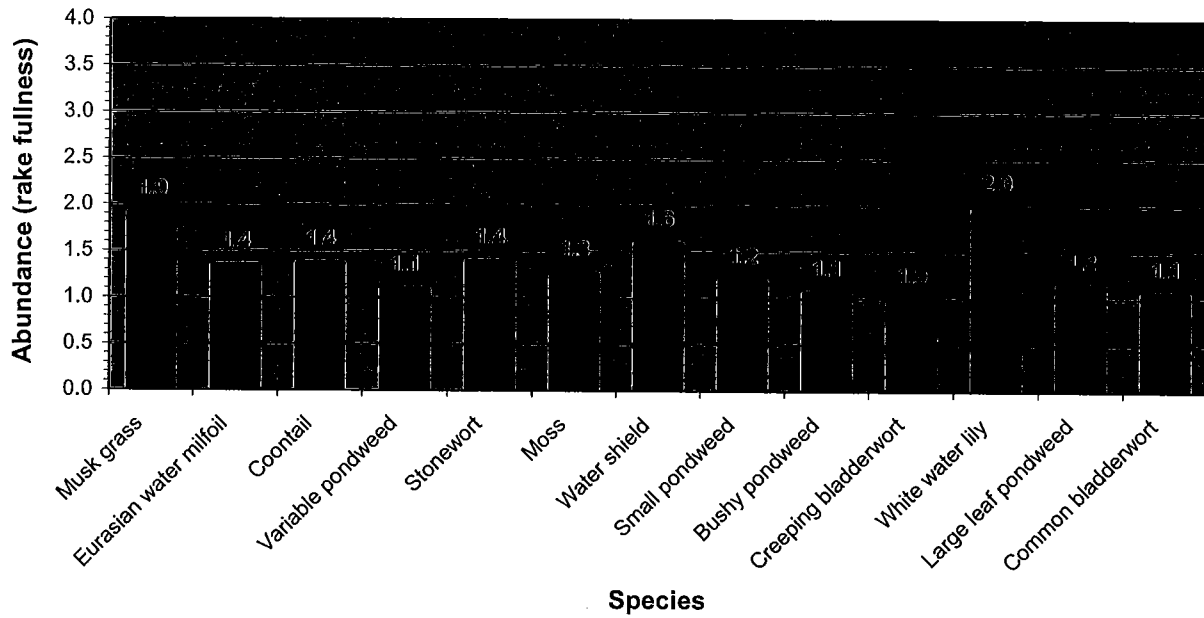
42
3
8
30
18
5

177
131
132
95.24
0.94
11.00
0
153
4.30
4.18
3.91
4.18
32
37

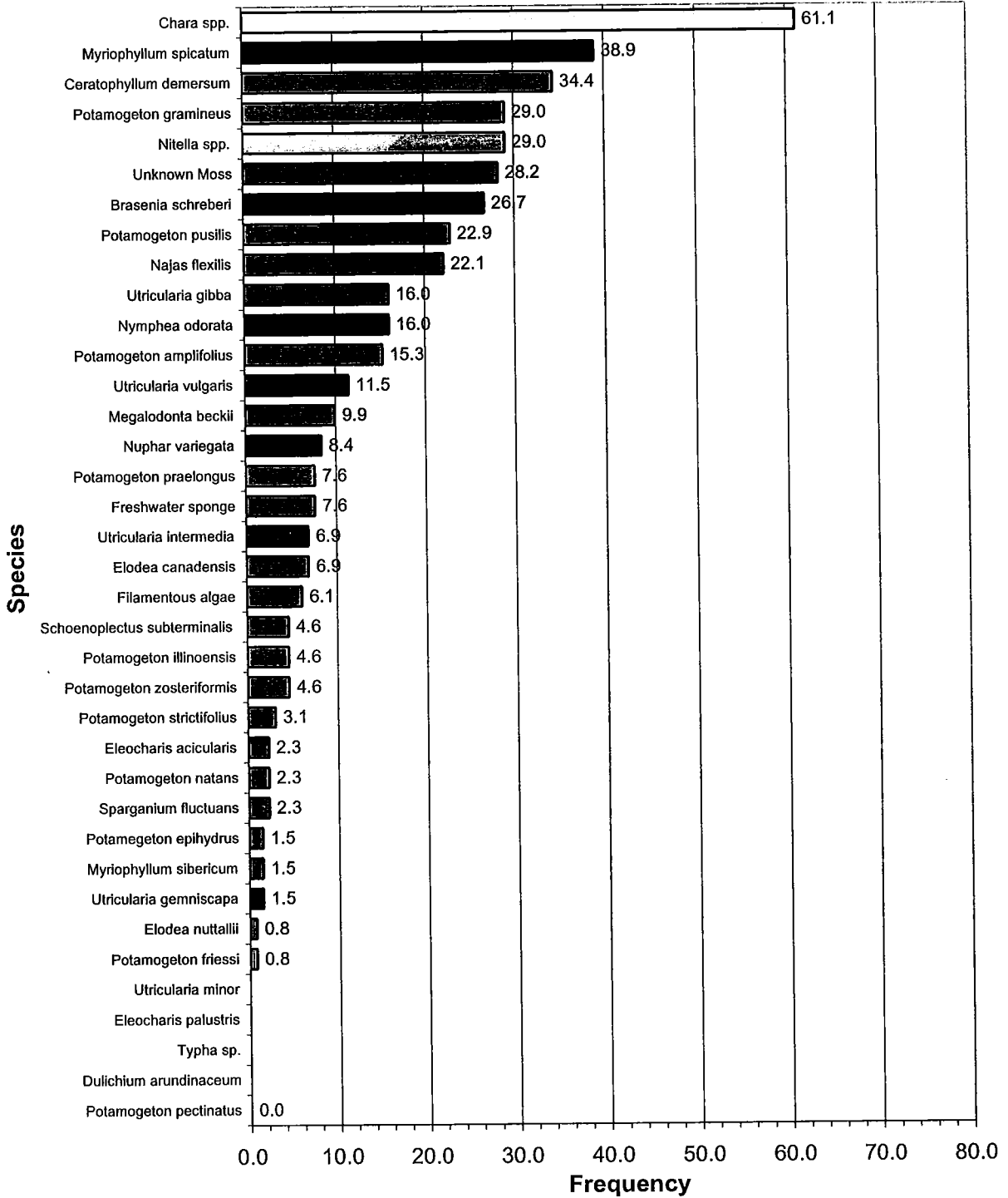
Relative Frequency of Aquatic Plants in Beecher Lake



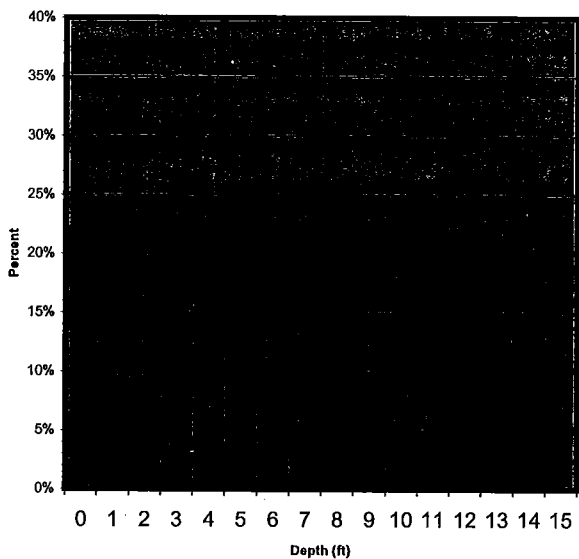
Average Abundance of Dominant Plants



Beecher Lake Aquatic Plant Frequency

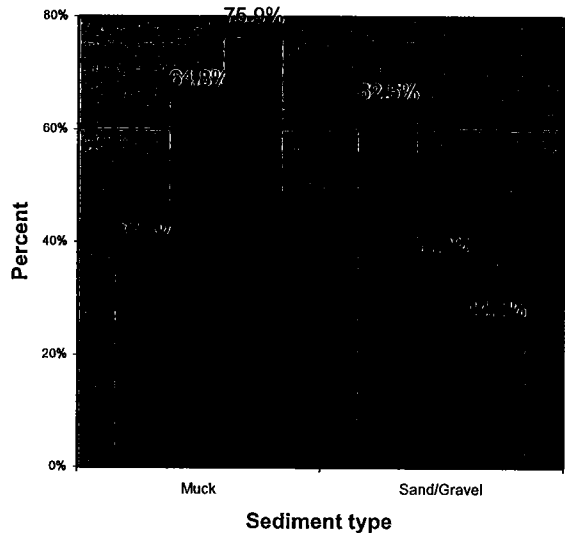


RELATIVE DEPTH PREFERENCE OF MAJOR AQUATIC PLANTS



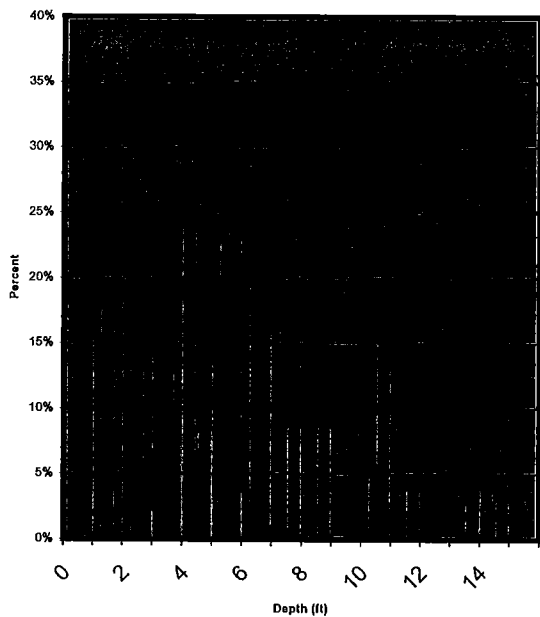
- Musk grass
- Eurasian water milfoil
- Coontail

RELATIVE SEDIMENT PREFERENCE OF MAJOR AQUATIC PLANTS



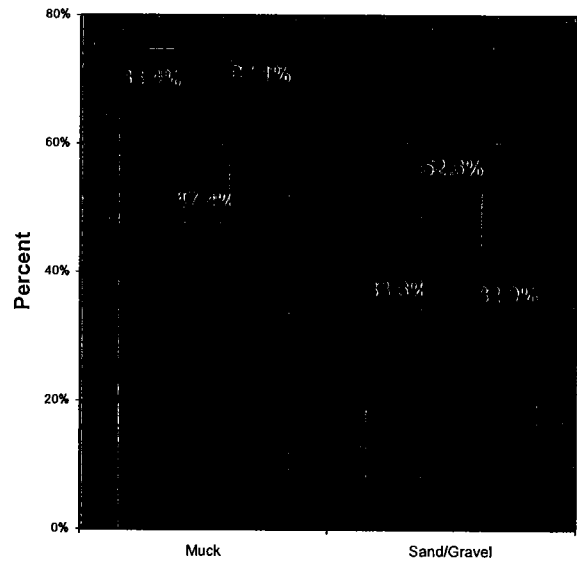
- Musk grass
- Eurasian water milfoil
- Coontail

RELATIVE DEPTH PREFERENCE OF MAJOR AQUATIC PLANTS



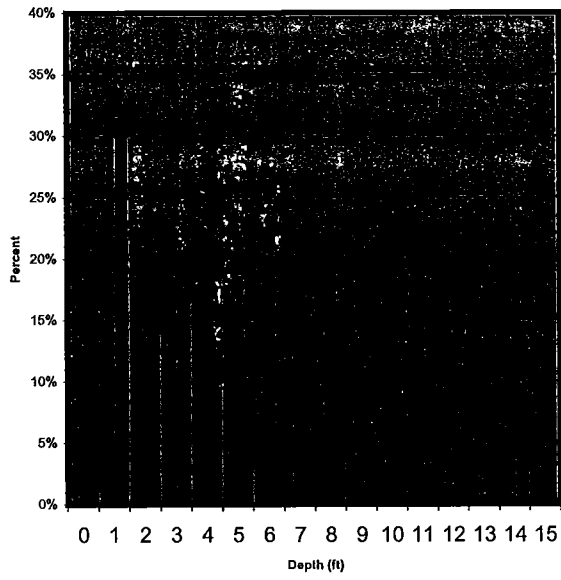
- Variable pondweed
- Stonewort
- Moss

RELATIVE SEDIMENT PREFERENCE OF MAJOR AQUATIC PLANTS



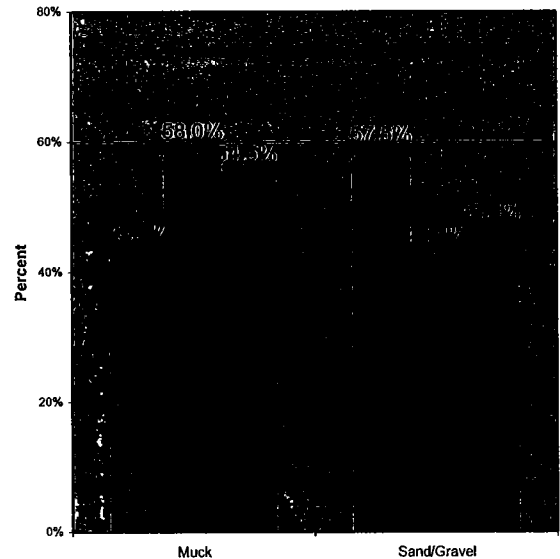
- Variable pondweed
- Stonewort
- Moss

RELATIVE DEPTH PREFERENCE OF MAJOR AQUATIC PLANTS



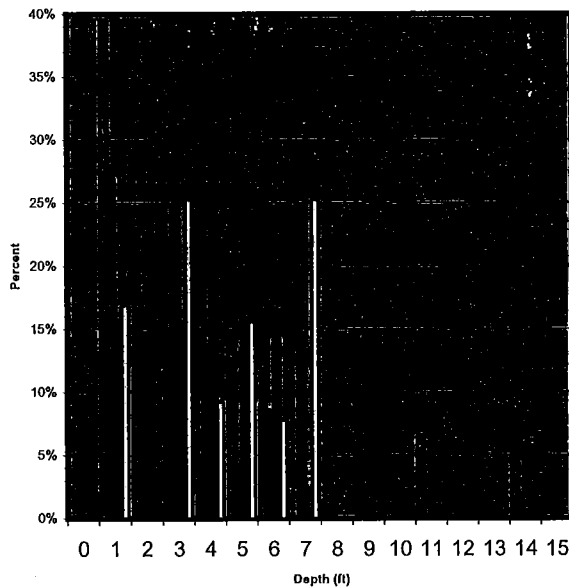
- Water shield
- Small pondweed
- Bushy pondweed

RELATIVE SEDIMENT PREFERENCE OF MAJOR AQUATIC PLANTS



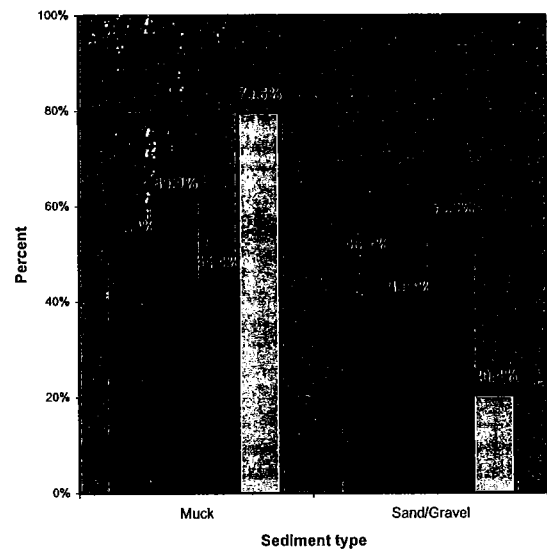
- Water shield
- Small pondweed
- Bushy pondweed

RELATIVE DEPTH PREFERENCE OF MAJOR AQUATIC PLANTS

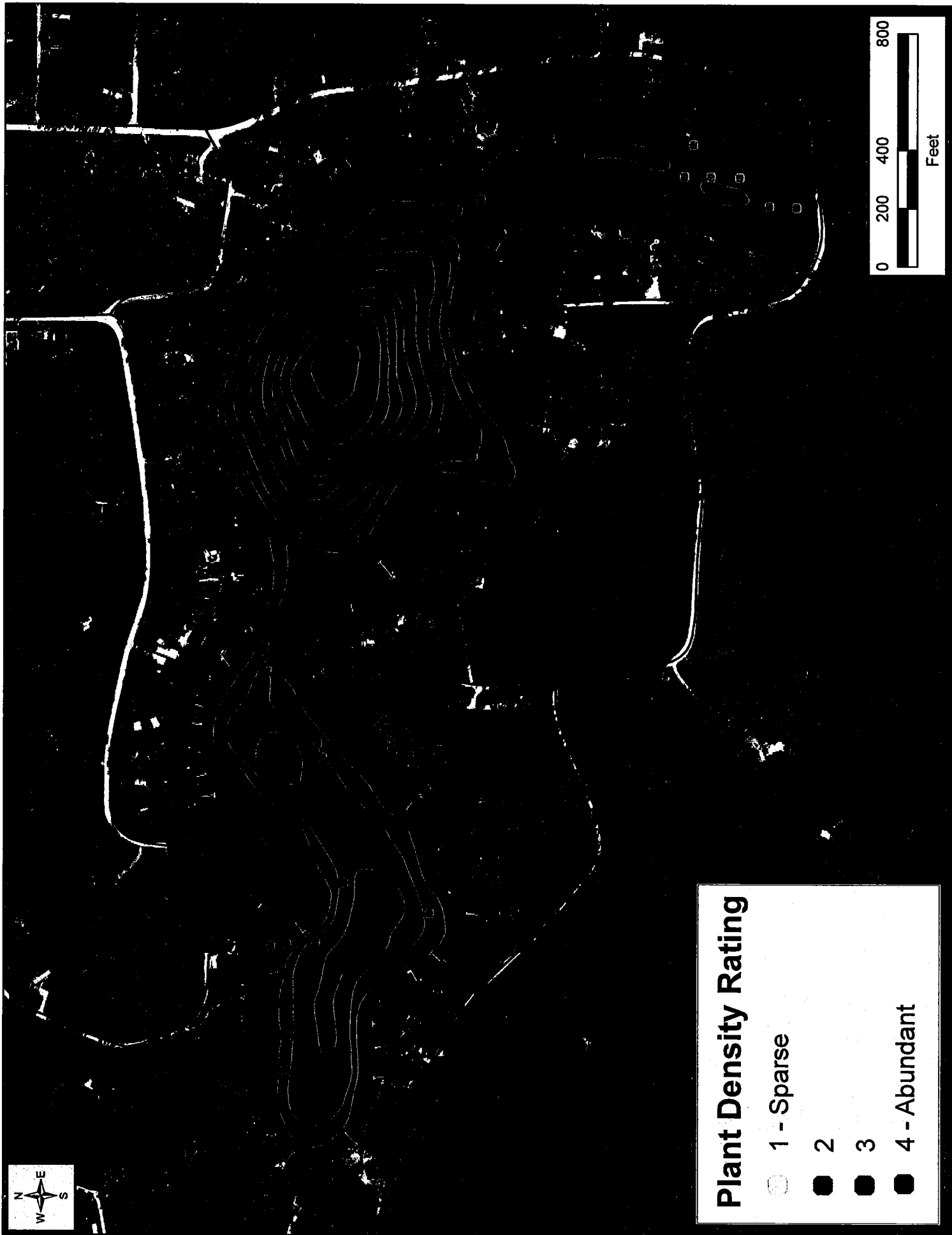


- Creeping bladderwort
- White water lily
- Large leaf pondweed
- Common bladderwort

RELATIVE SEDIMENT PREFERENCE OF MAJOR AQUATIC PLANTS

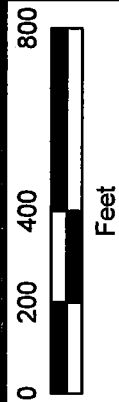


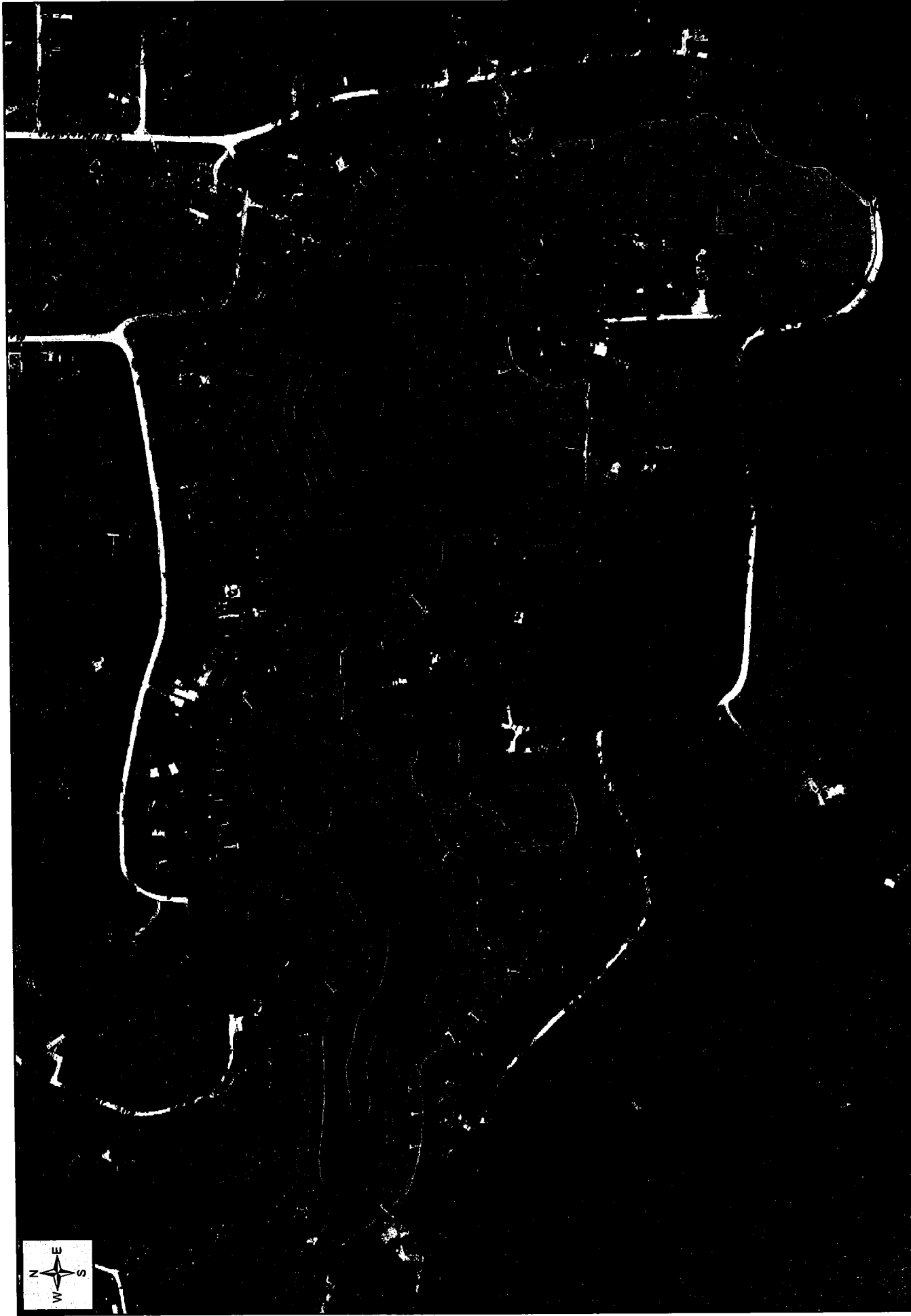
- Creeping bladderwort
- White water lily
- Large leaf pondweed
- Common bladderwort



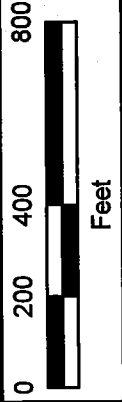
Plant Density Rating

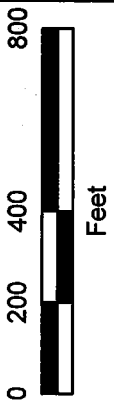
- 1 - Sparse
- 2
- 3
- 4 - Abundant





Beecher Lakes' littoral zone (shaded area) covers approximately 38 acres, or 65% of the lake surface area.





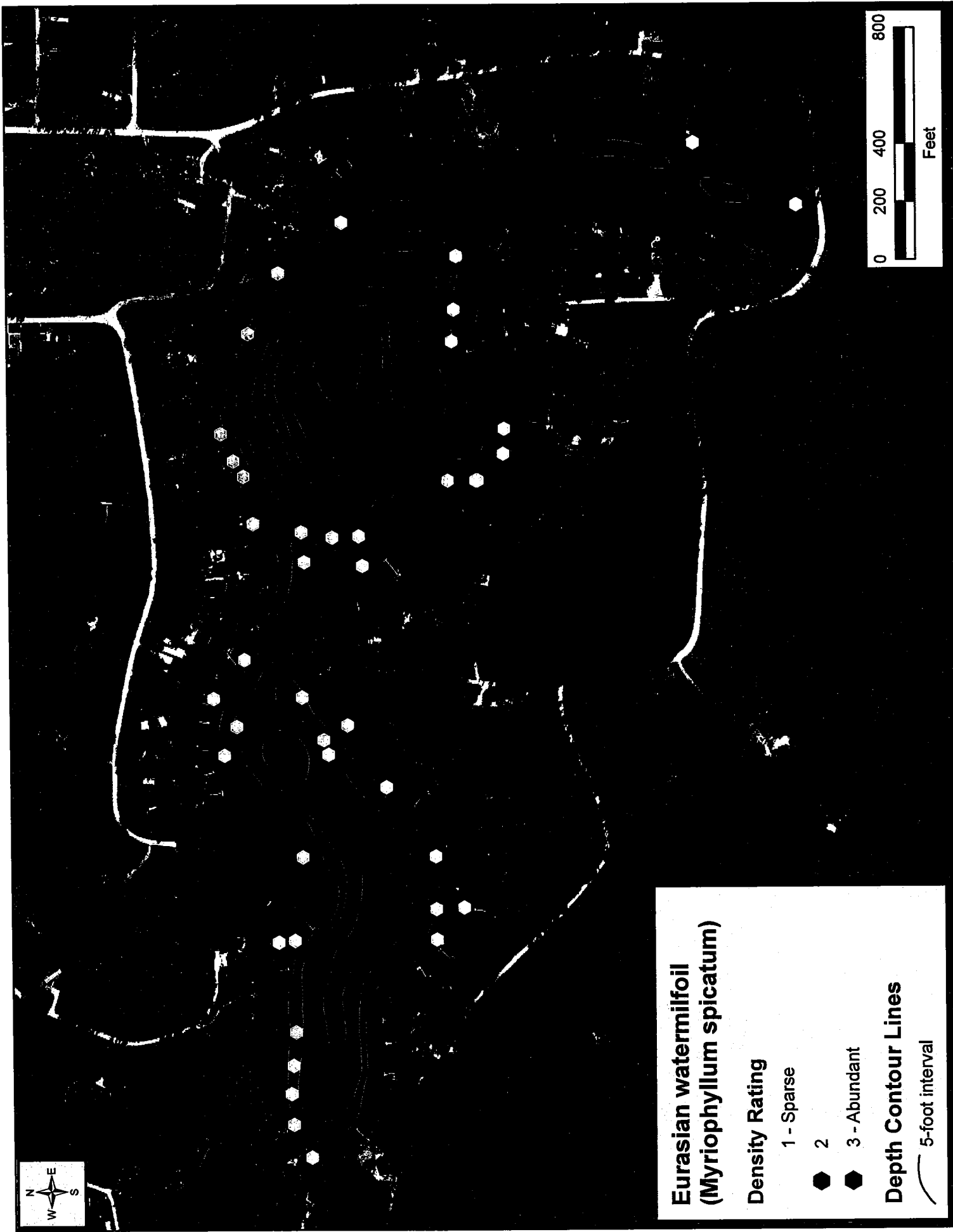
Muskgrass (Chara sp.)

Density Rating

- 1 - Sparse
- 2
- 3 - Abundant

Depth Contour Lines

— 5-foot interval



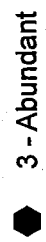
**Eurasian watermilfoil
(*Myriophyllum spicatum*)**

Density Rating

1 - Sparse

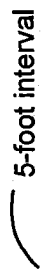


2

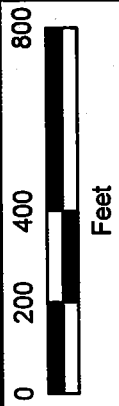


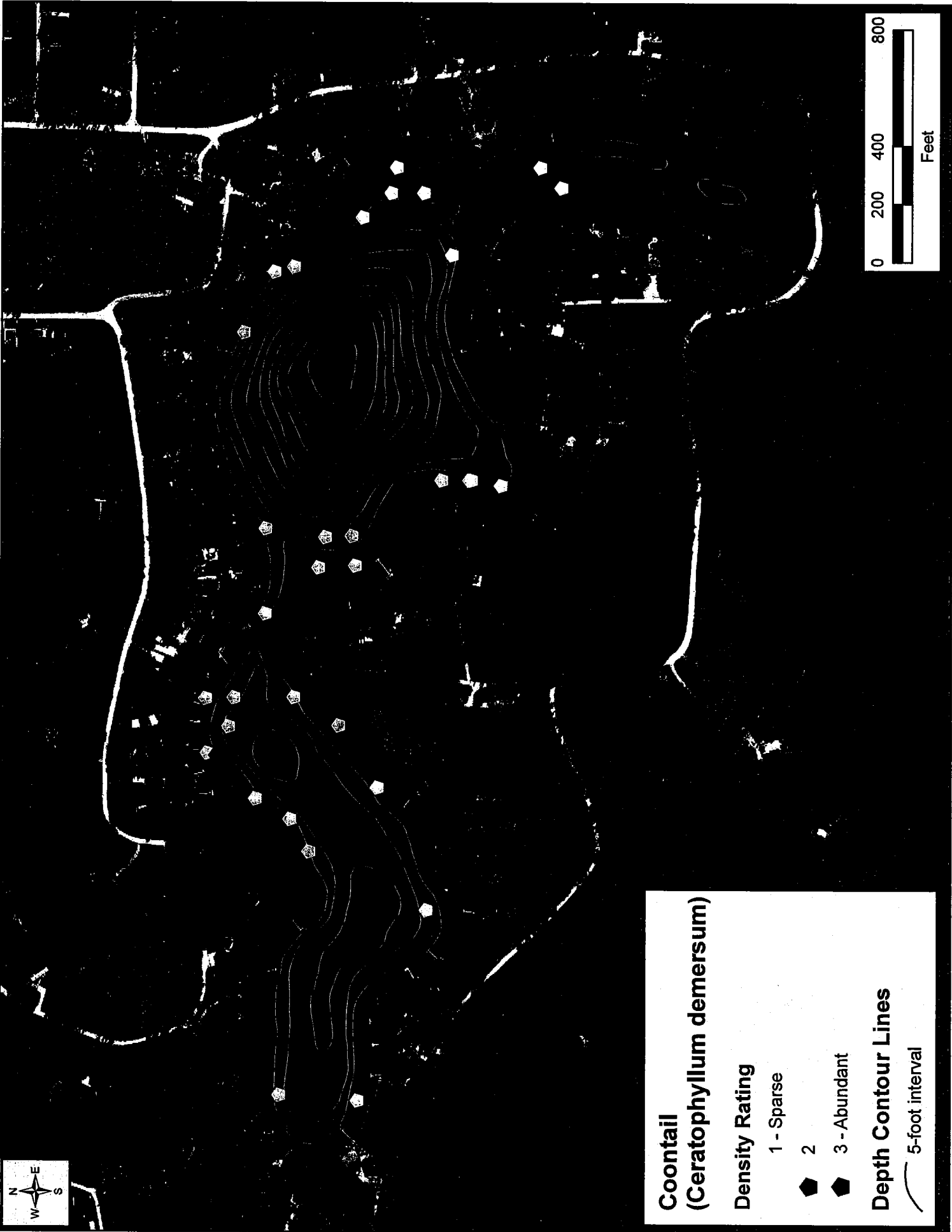
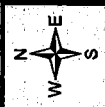
3 - Abundant

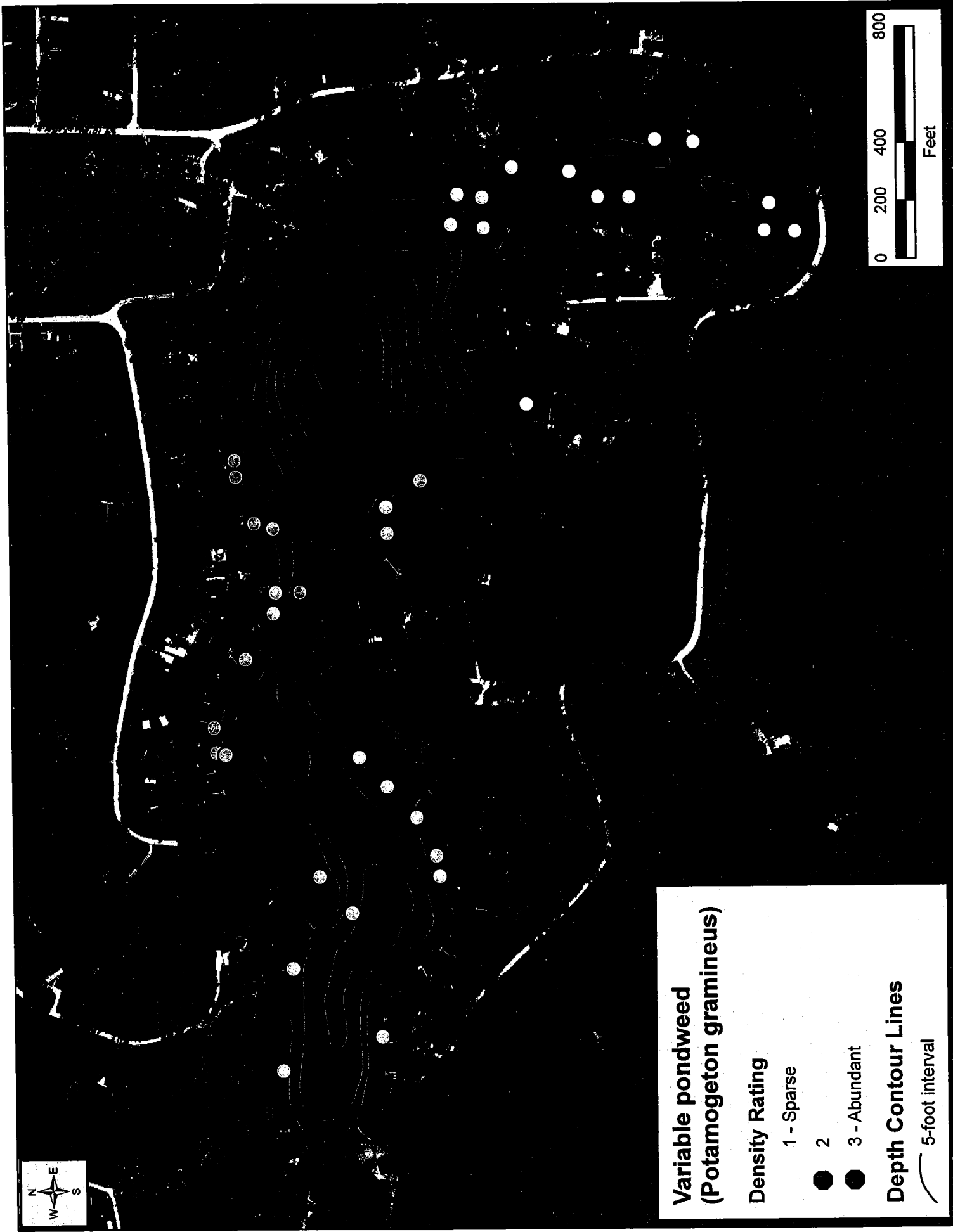
Depth Contour Lines



5-foot interval







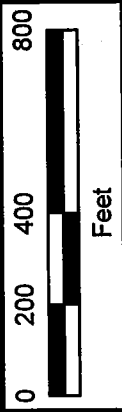
**Variable pondweed
(Potamogeton gramineus)**

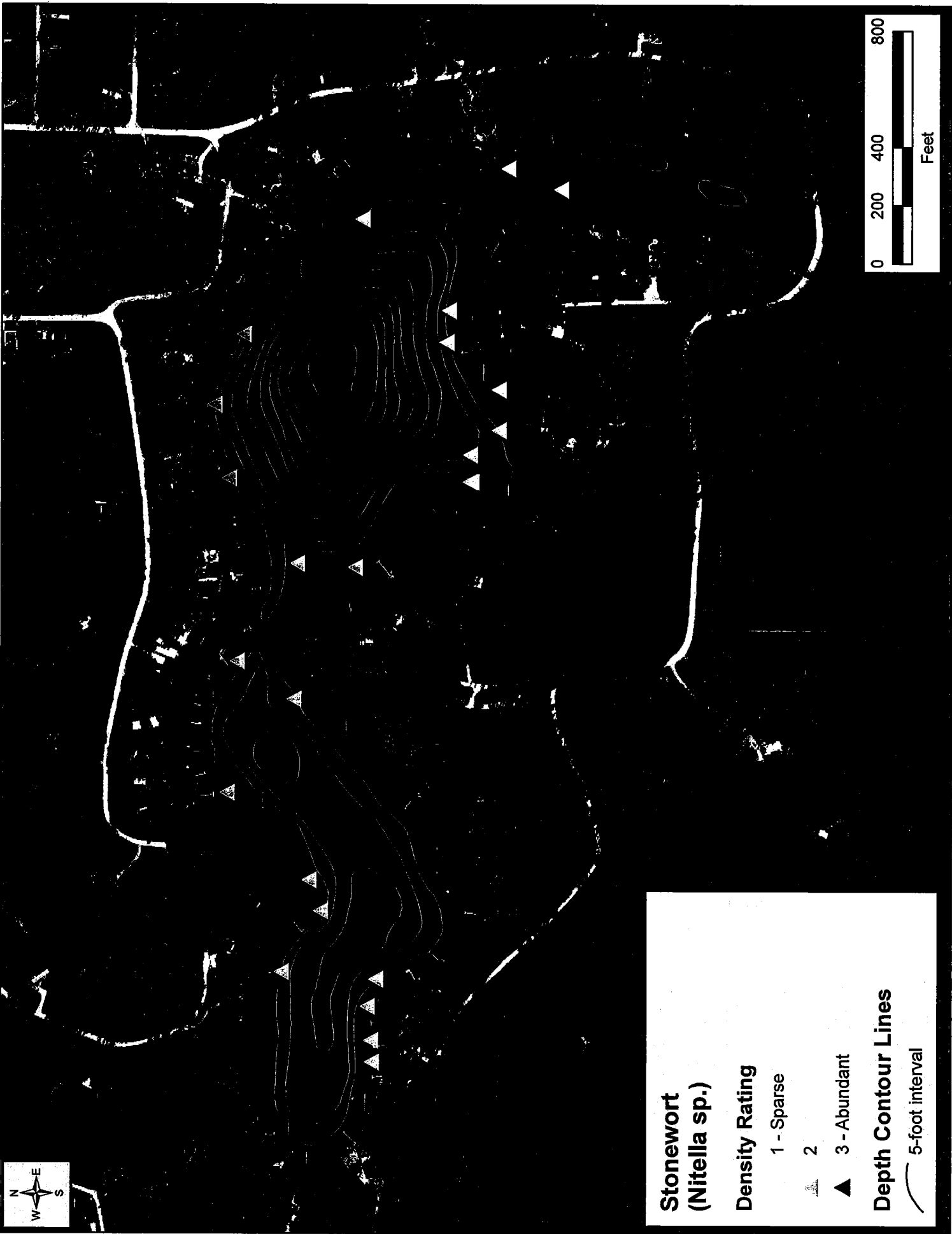
Density Rating

- 1 - Sparse
- 2
- 3 - Abundant

Depth Contour Lines

5-foot interval





**Stonewort
(*Nitella* sp.)**

Density Rating

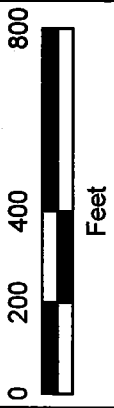
1 - Sparse

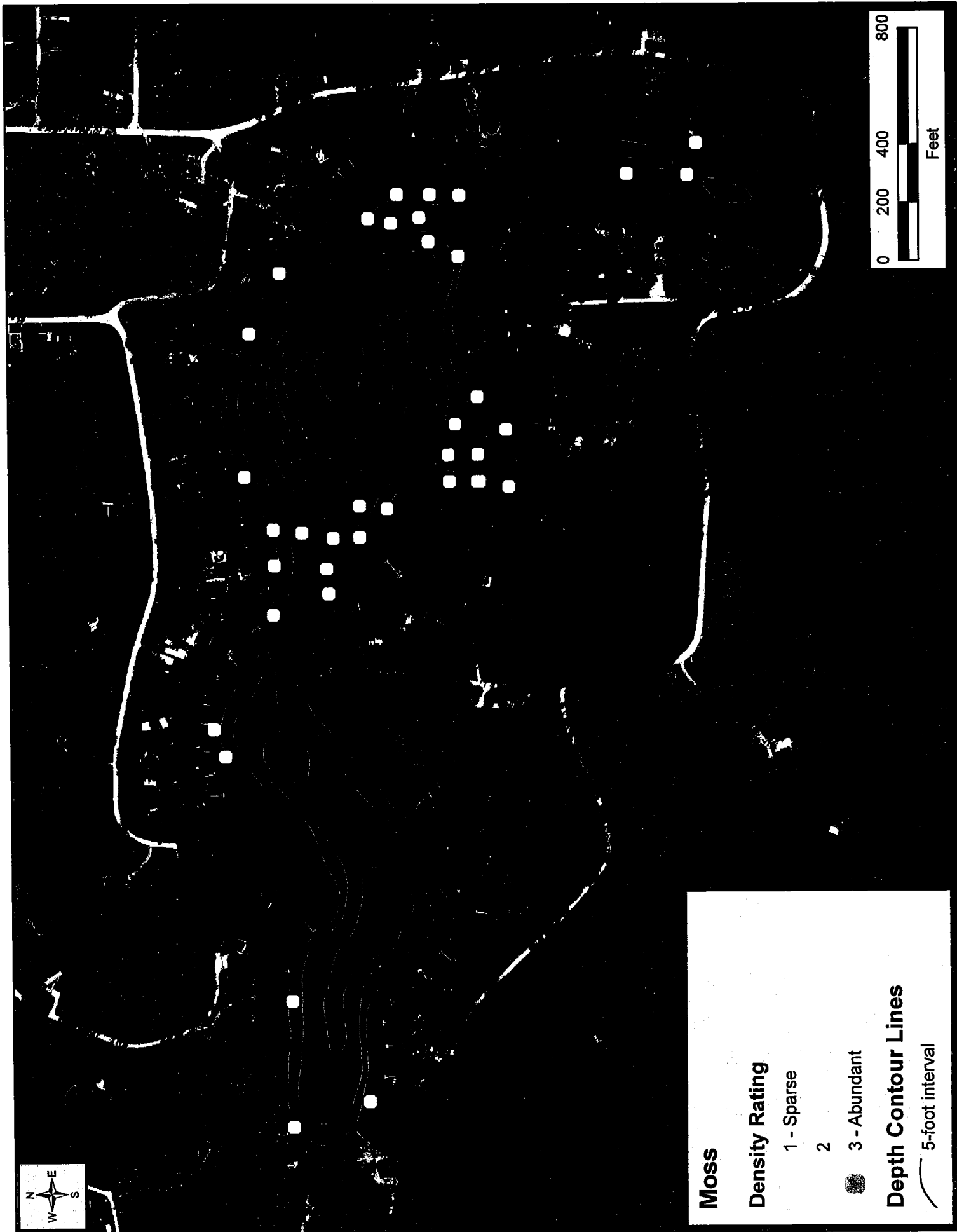
▲ 2

▲ 3 - Abundant

Depth Contour Lines

— 5-foot interval





Moss

Density Rating

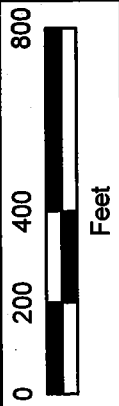
1 - Sparse

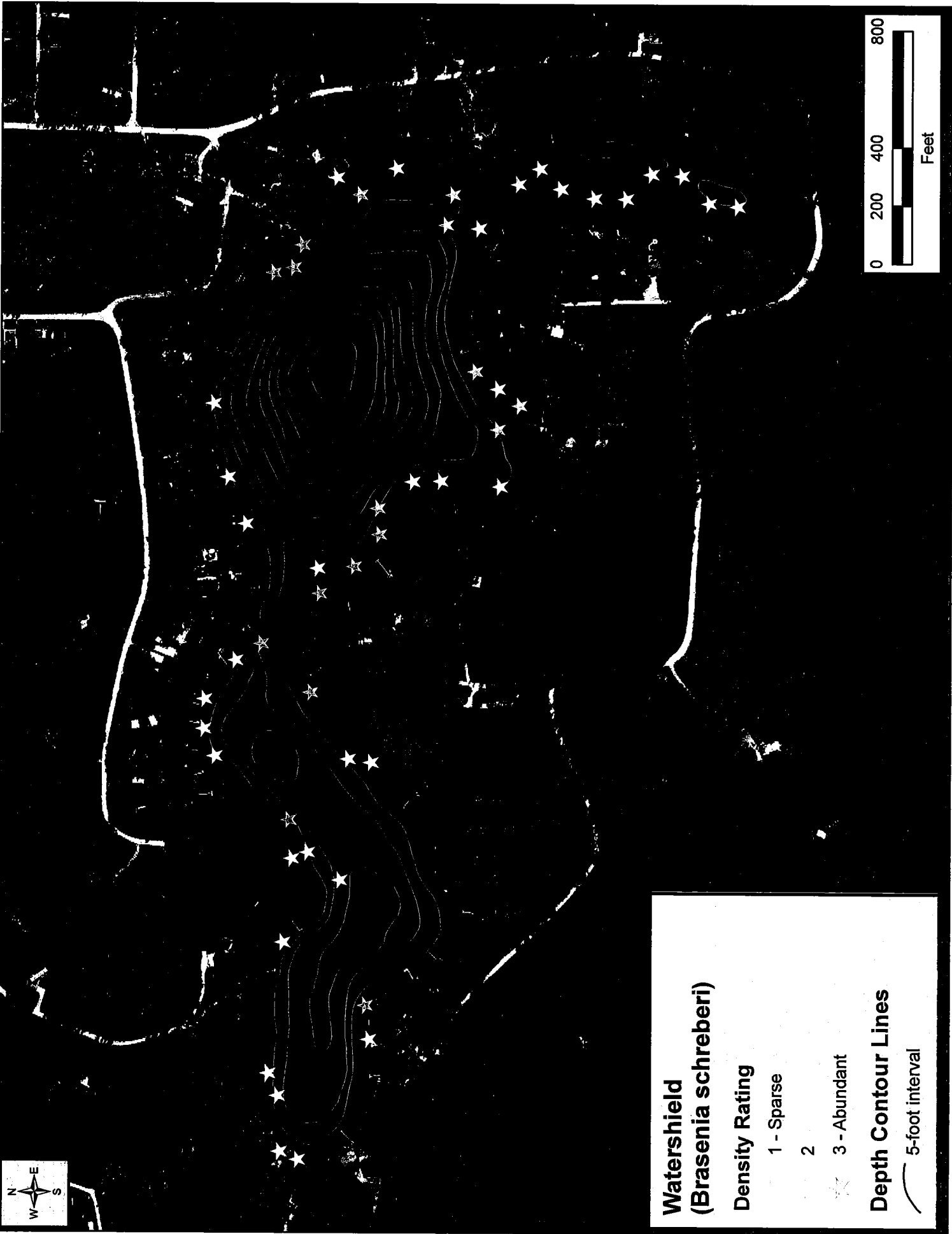
2

3 - Abundant

Depth Contour Lines

5-foot interval





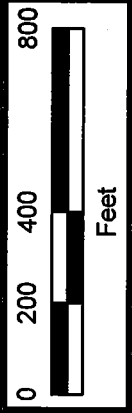
**Watershed
(Brasenia schreberi)**

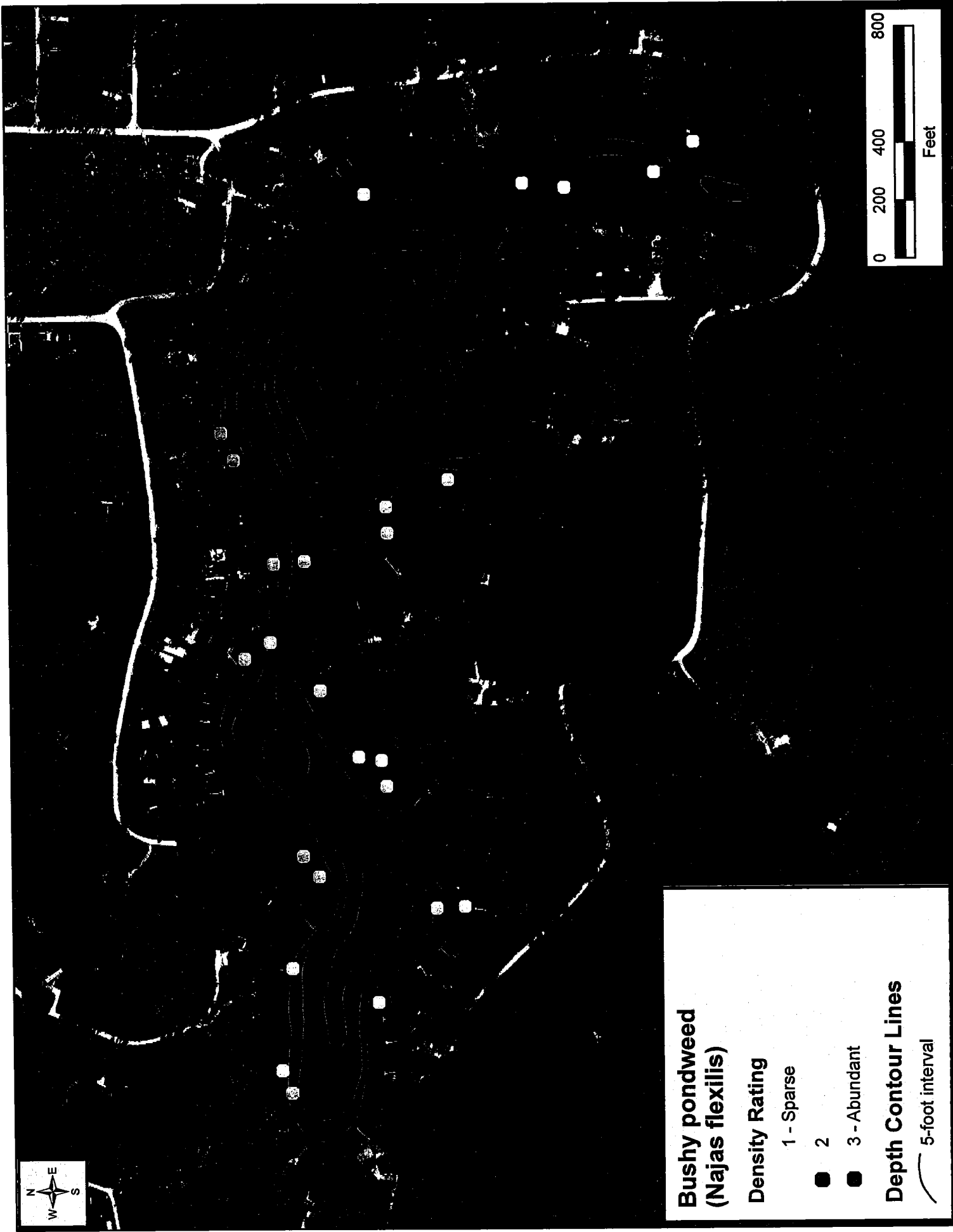
Density Rating

- 1 - Sparse
- 2
- ★ 3 - Abundant

Depth Contour Lines

— 5-foot interval





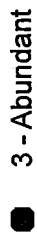
**Bushy pondweed
(*Najas flexilis*)**

Density Rating

1 - Sparse

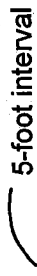


2

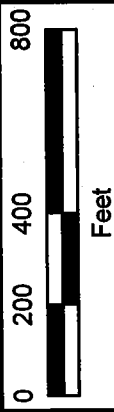


3 - Abundant

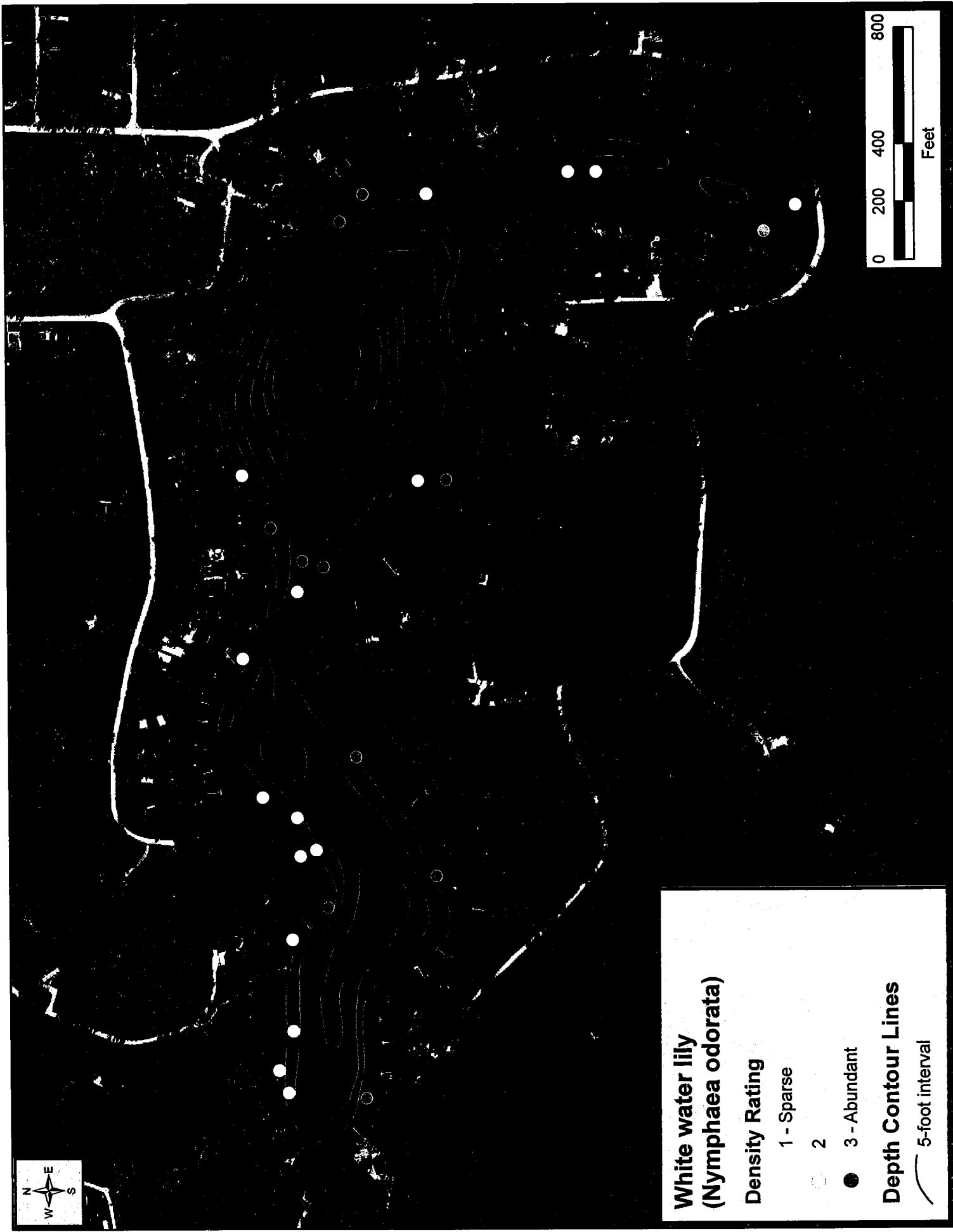
Depth Contour Lines



5-foot interval







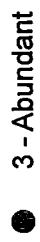
**White water lily
(*Nymphaea odorata*)**

Density Rating

1 - Sparse

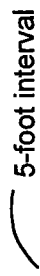


2



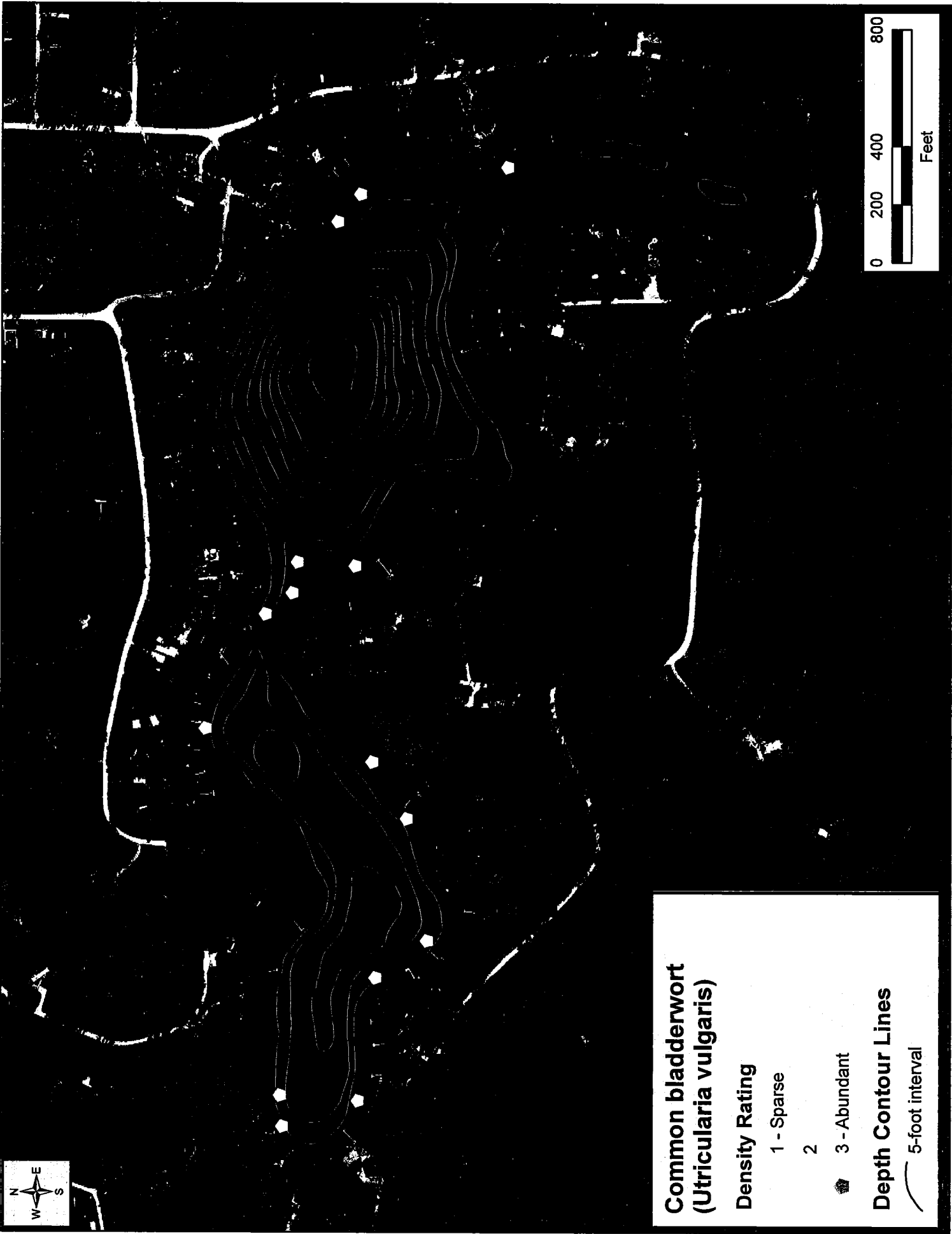
3 - Abundant

Depth Contour Lines



5-foot interval





**Common bladderwort
(*Utricularia vulgaris*)**

Density Rating

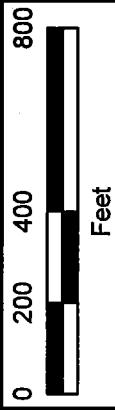
1 - Sparse

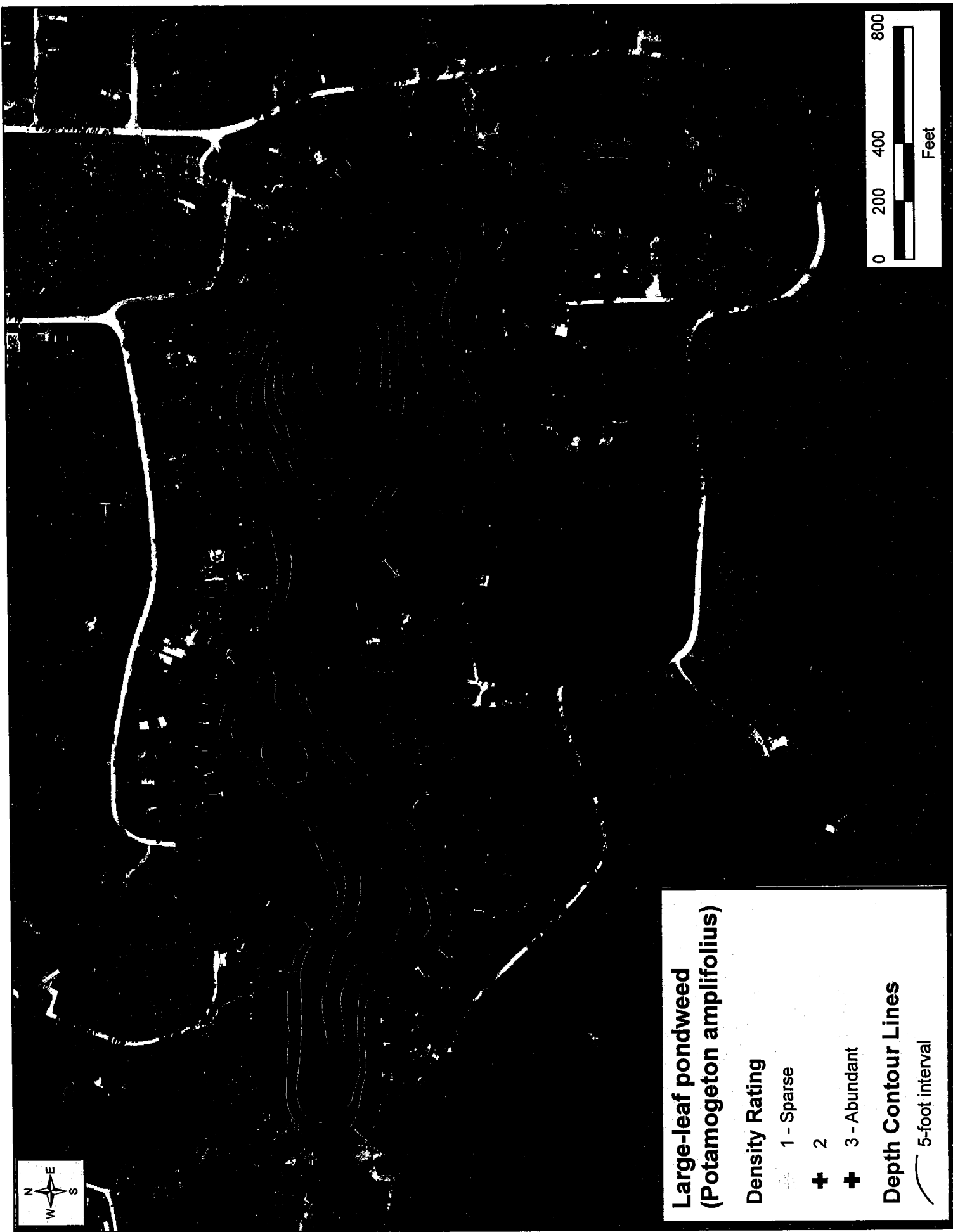
2

3 - Abundant

Depth Contour Lines

5-foot interval





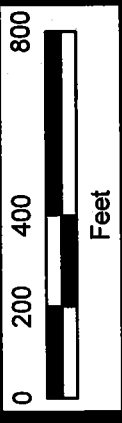
**Large-leaf pondweed
(Potamogeton amplifolius)**

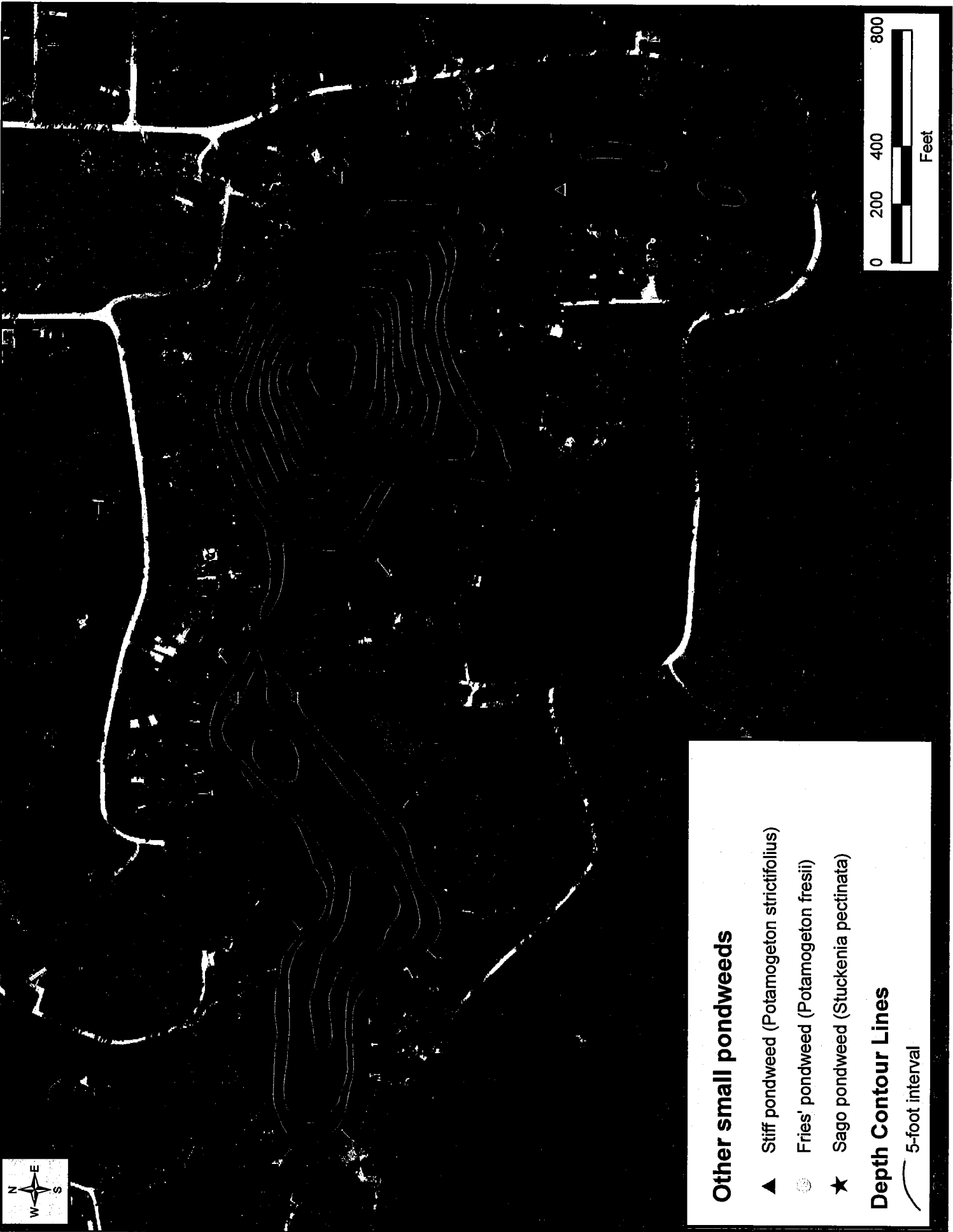
Density Rating

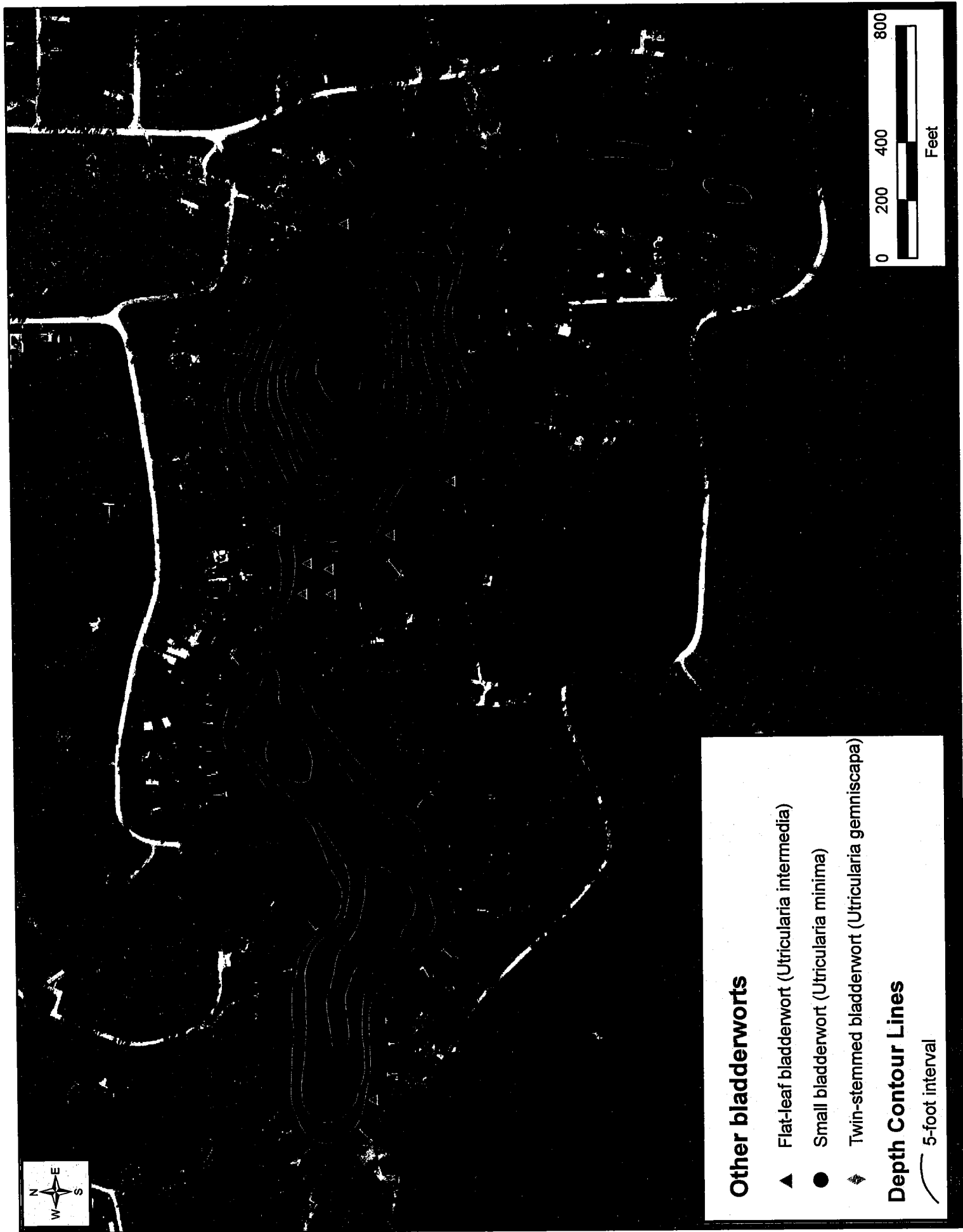
- 1 - Sparse
- ⊕ 2
- ⊕ 3 - Abundant

Depth Contour Lines

— 5-foot interval







Other bladderworts

- ▲ Flat-leaf bladderwort (*Utricularia intermedia*)
- Small bladderwort (*Utricularia minima*)
- ◆ Twin-stemmed bladderwort (*Utricularia gemniscapa*)

Depth Contour Lines

— 5-foot interval



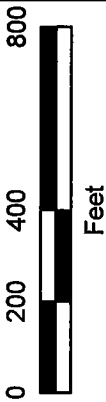


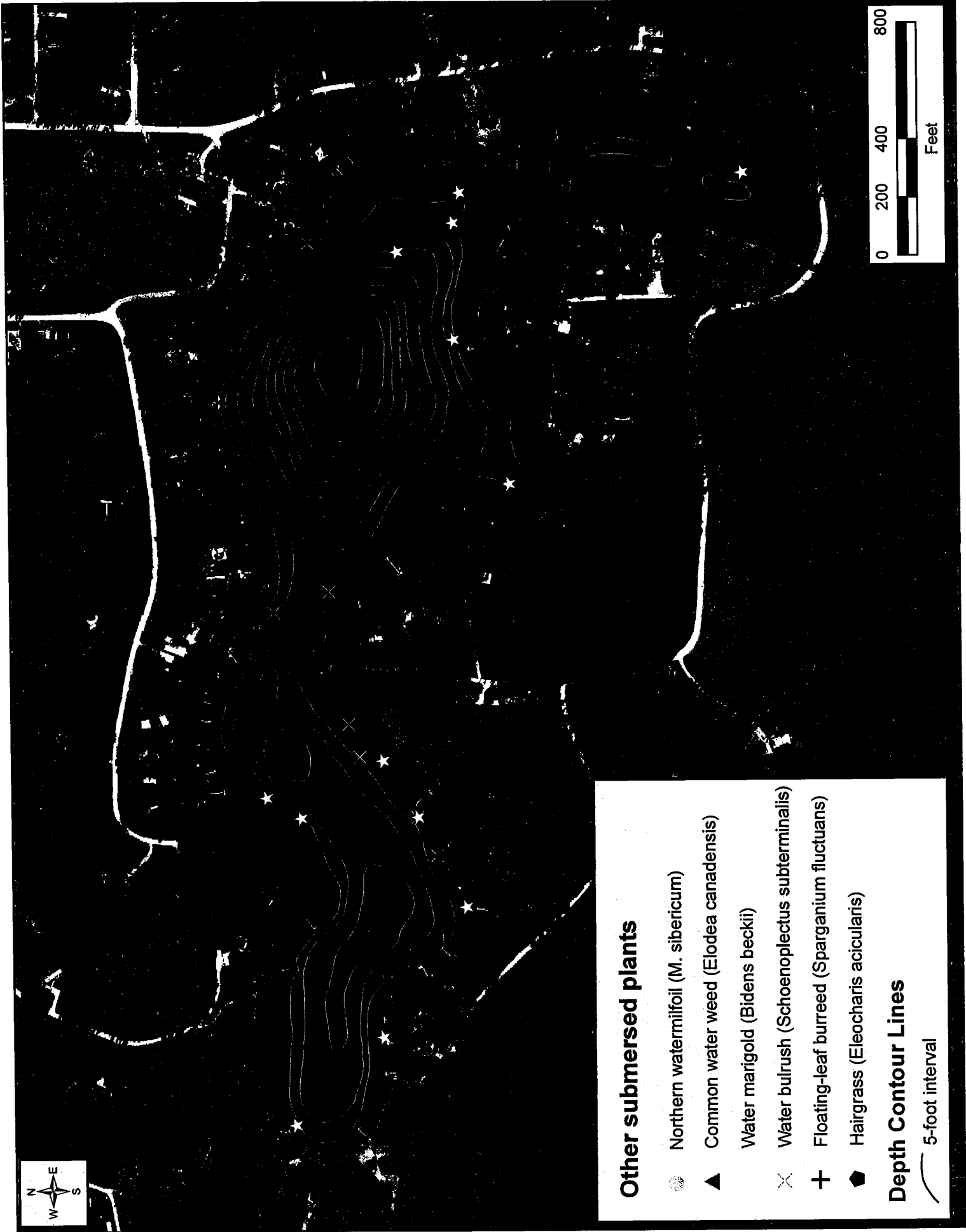
Other large pondweeds

- ◆ Floating-leaf pondweed (*P. natans*)
- ▲ Illinois pondweed (*P. illinoensis*)
- ★ White-stem pondweed (*P. praelongus*)
- ✦ Flat-stem pondweed (*P. zosteriformis*)
- ✦ Ribbon-leaf pondweed (*P. ephedrus*)

Depth Contour Lines

— 5-foot interval



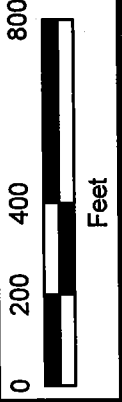


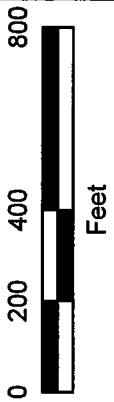
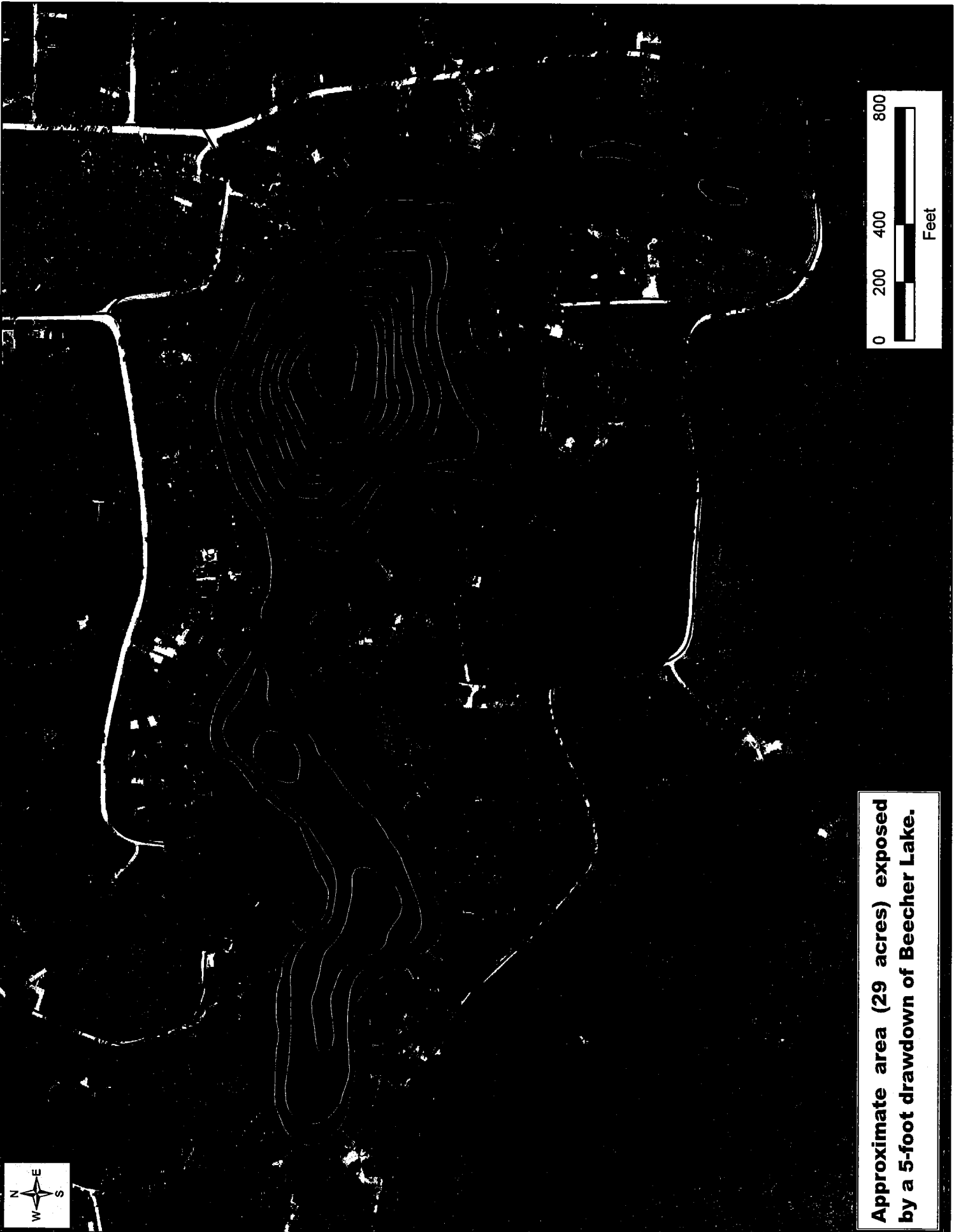
Other submerged plants

- Northern watermilfoil (*M. sibericum*)
- ▲ Common water weed (*Elodea canadensis*)
- × Water marigold (*Bidens beckii*)
- + Water bulrush (*Schoenoplectus subterminalis*)
- ◆ Floating-leaf burreed (*Sparganium fluctuans*)
- ◆ Hairgrass (*Eleocharis acicularis*)

Depth Contour Lines

— 5-foot interval





Approximate area (29 acres) exposed by a 5-foot drawdown of Beecher Lake.

