

APPENDIX A: AVAS AND POINT INTERCEPT

MAPS AND TABLES



Figure 3.1a Cedarville Bay Point Intercept map.



Key	Percent Rake Cover
A	1-2%
B	3-20%
C	21-60%
D	61-100%

Figure 3.1b Cedarville Bay Eurasian watermilfoil Point Intercept map.

Table 3.1. Cedarville Bay Point Intercept results.

Common Name	Scientific Name	Total Occurrence	Percent of Points (146)
Alternate watermilfoil	<i>Myriophyllum alterniflorum</i>	1	>1
Blunt pondweed	<i>Potamogeton obtusifolius</i>	4	3
Bulrush	<i>Scirpus spp.</i>	2	1
Bushy pondweed/Slender naiad	<i>Najas flexilis</i>	44	30
Chara	<i>Chara spp.</i>	86	59
Clasping Leaf pondweed	<i>Potamogeton richardsonii</i>	25	17
Coontail	<i>Ceratophyllum demersum</i>	4	3
Elodea	<i>Elodea canadensis</i>	41	28
Eelgrass	<i>Vallisneria americana</i>	76	52
Eurasian watermilfoil	<i>Myriophyllum spicatum</i>	75	51
Flatstem pondweed	<i>Potamogeton zosteriformis</i>	9	6
Fries pondweed	<i>Potamogeton friesii</i>	5	3
Illinois pondweed	<i>Potamogeton illinoensis</i>	23	16
Large Leaf pondweed	<i>Potamogeton amplifolius</i>	18	12
Water lobelia	<i>Lobelia dortmanna</i>	1	>1
Marigold	<i>Bidens beckii</i>	3	2
Nitella	<i>Nitella sp.</i>	28	19
Northern watermilfoil	<i>Myriophyllum sibiricum</i>	4	3
Pipewort	<i>Eriocaulon aquaticum</i>	2	1
Robbins'/Fern pondweed	<i>Potamogeton robbinsii</i>	36	25
Spadderdock	<i>Nuphar variegata</i>	1	>1
Stiff pondweed	<i>Potamogeton strictifolius</i>	1	>1
Variable pondweed	<i>Potamogeton gramineus</i>	11	8
Water Stargrass	<i>Heteranthera dubia</i>	3	2
Whorled watermilfoil	<i>Myriophyllum verticillatum</i>	14	10



Figure 3.1c Cedarville Bay Eurasian watermilfoil AVAS map.

Species	CC%
Alternate watermilfoil	1.00
Bulrush	On shore
Cattail	On shore
Chara	10.00
Clasping Leaf pondweed	1.00
Eelgrass	10.00
Eurasian watermilfoil	40.00
Flatstem pondweed	1.00
Fries pondweed	1.00
Large Leaf pondweed	1.00
Naiad	1.00
Northern watermilfoil	1.00
Phragmites	On shore
Pipewort	1.00
Reed Canary Grass	On shore
Robbins/Fern pondweed	10.00
Spikerush	1.00
Variable pondweed	1.00
Water Stargrass	1.00
Whorled watermilfoil	10.00

Key	Percent Cumulative Cover (%CC) Range
A	1-2%
B	3-20%
C	21-60%
D	61-100%

AVAS transect line



Figure 3.2 Coryell Bay Eurasian watermilfoil AVAS map.

Species	CC%
Alternate watermilfoil	1.00
Chara	40.00
Clasping Leaf pondweed	1.00
Elodea	1.00
Eurasian watermilfoil	0.00
Mare's Tail	10.00
Northern watermilfoil	1.00
Spikerush	1.00
Variable pondweed	1.00

Key	Percent Cumulative Cover (%CC) Range
A	1-2%
B	3-20%
C	21-60%
D	61-100%

AVAS transect line

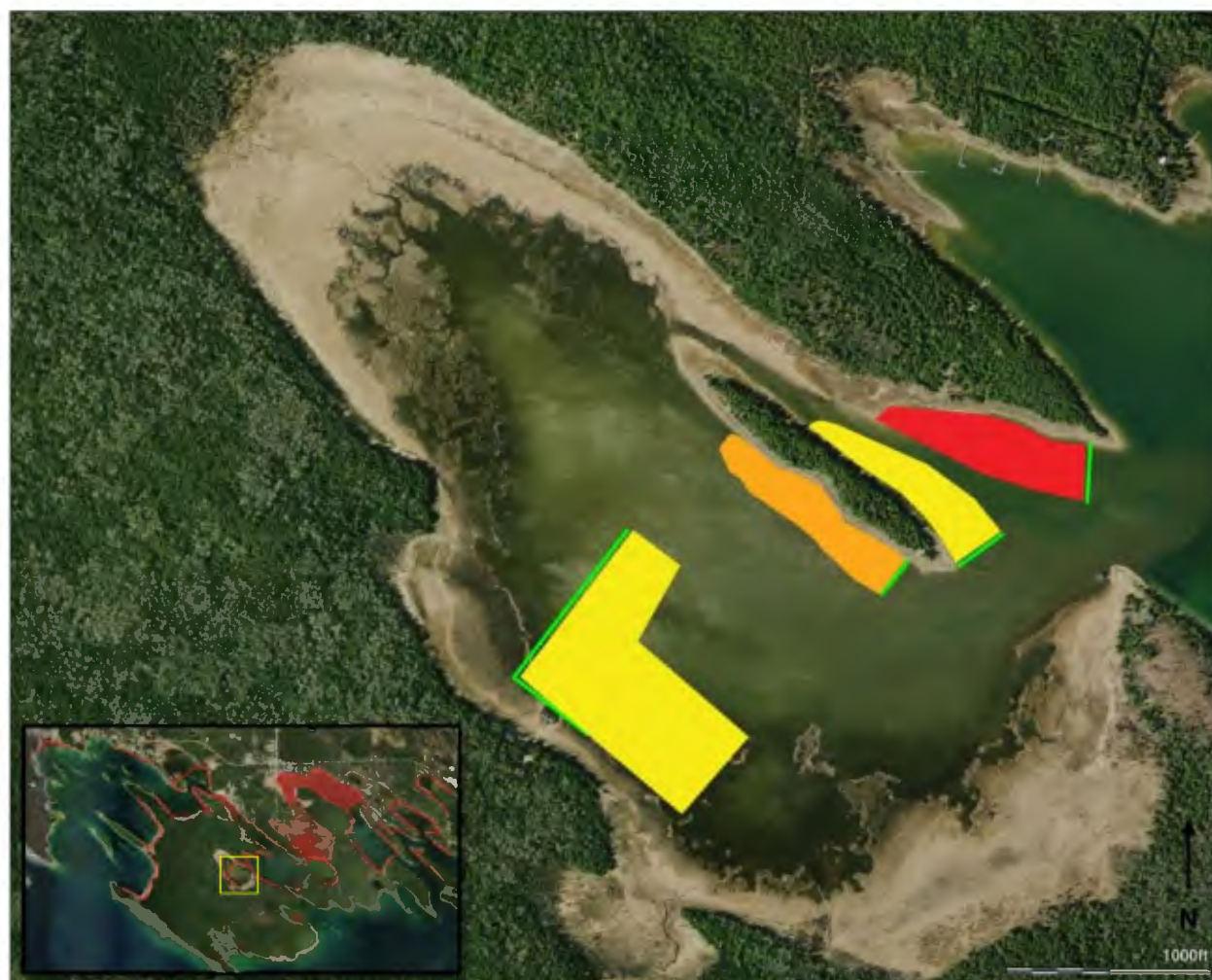


Figure 3.3 Duck Bay Eurasian watermilfoil AVAS map.

Species	CC%
Bulrush	20.50
Chara	13.00
Clasping Leaf pondweed	1.00
Elodea	0.25
Eelgrass	0.75
Eurasian watermilfoil	13.00
Flatstem pondweed	0.50
Large Leaf pondweed	0.25
Marigold	0.50
Naiad	20.50
Pickerelweed	0.25
Robbins/Fern pondweed	0.50
Sago pondweed	0.25
Variable pondweed	0.75
Wild rice	0.50

Key	Percent Cumulative Cover (%CC) Range
A	1-2%
B	3-20%
C	21-60%
D	61-100%

— AVAS transect line



Figure 3.4 Government Island Eurasian watermilfoil AVAS map.

Species	CC%
Alternate watermilfoil	0.25
Blunt pondweed	0.25
Bulrush	20.25
Buttercup	0.25
Chara	20.50
Clasping Leaf pondweed	0.25
Elodea	0.25
Eelgrass	10.25
Eurasian watermilfoil	30.00
Fries pondweed	0.50
Naiad	0.25
Nitella	0.50
Northern watermilfoil	0.50
Phragmites	**
Reed Canary Grass	**
Robbins/Fern pondweed	0.25
Variable pondweed	0.50
Water Stargrass	0.25
Whorled watermilfoil	0.75

**Observed on shore

Key	Percent Cumulative Cover (%CC) Range
A	1-2%
B	3-20%
C	21-60%
D	61-100%

AVAS transect line



Figure 3.5 Hessel Bay Eurasian watermilfoil AVAS map.

Species	CC%
Alternate watermilfoil	0.10
Bulrush	0.10
Chara	54.00
Clasping Leaf pondweed	4.30
Elodea	0.40
Eelgrass	2.50
Eurasian watermilfoil	53.00
Flatstem pondweed	0.50
Large Leaf pondweed	12.20
Naiad	1.20
Northern watermilfoil	0.20
Phragmites	<i>On shore</i>
Reed Canary Grass	<i>On shore</i>
Robbins/Fern pondweed	3.40
Variable pondweed	0.30
Whorled watermilfoil	6.50

Key	Percent Cumulative Cover (%CC) Range
A	1-2%
B	3-20%
C	21-60%
D	61-100%
AVAS transect line	



Species	CC%
Bulrush	0.22
Cattail	<i>On shore</i>
Chara	11.33
Clasping Leaf pondweed	0.11
Elodea	0.11
Eelgrass	1.33
Eurasian watermilfoil	17.00
Flatstem pondweed	0.11
Large Leaf pondweed	0.11
Naiad	0.22
Northern watermilfoil	0.11
Robbins/Fern pondweed	0.11
Thinleaf pondweed	0.11
Water Stargrass	0.11
Whorled watermilfoil	1.11

Key	Percent Cumulative Cover (%CC) Range
A	1-2%
B	3-20%
C	21-60%
D	61-100%

— AVAS transect line

Figure 3.6 Hessel Harbor Eurasian watermilfoil AVAS map.



Figure 3.7 Hill's Channel Eurasian watermilfoil AVAS map.

Species	CC%
Alternate watermilfoil	1.83
Blunt pondweed	0.33
Bulrush	6.83
Cattail	15.00
Chara	40.00
Clasping Leaf pondweed	0.83
Elodea	0.83
Eelgrass	8.67
Eurasian watermilfoil	16.83
Flatstem pondweed	0.17
Fries pondweed	0.17
Illinois pondweed	0.17
Large Leaf pondweed	3.50
Naiad	3.83
Nitella	0.17
Narrow-leaved cattail	<i>On shore</i>
Northern watermilfoil	1.83
Pickeralweed	0.17
Pipewort	0.33
Robbins/Fern pondweed	0.50
Spikerush	0.17
Stiff pondweed	0.17
Variable pondweed	5.50
Whorled watermilfoil	0.33

Key	Percent Cumulative Cover (%CC) Range
A	1-2%
B	3-20%
C	21-60%
D	61-100%

AVAS transect line

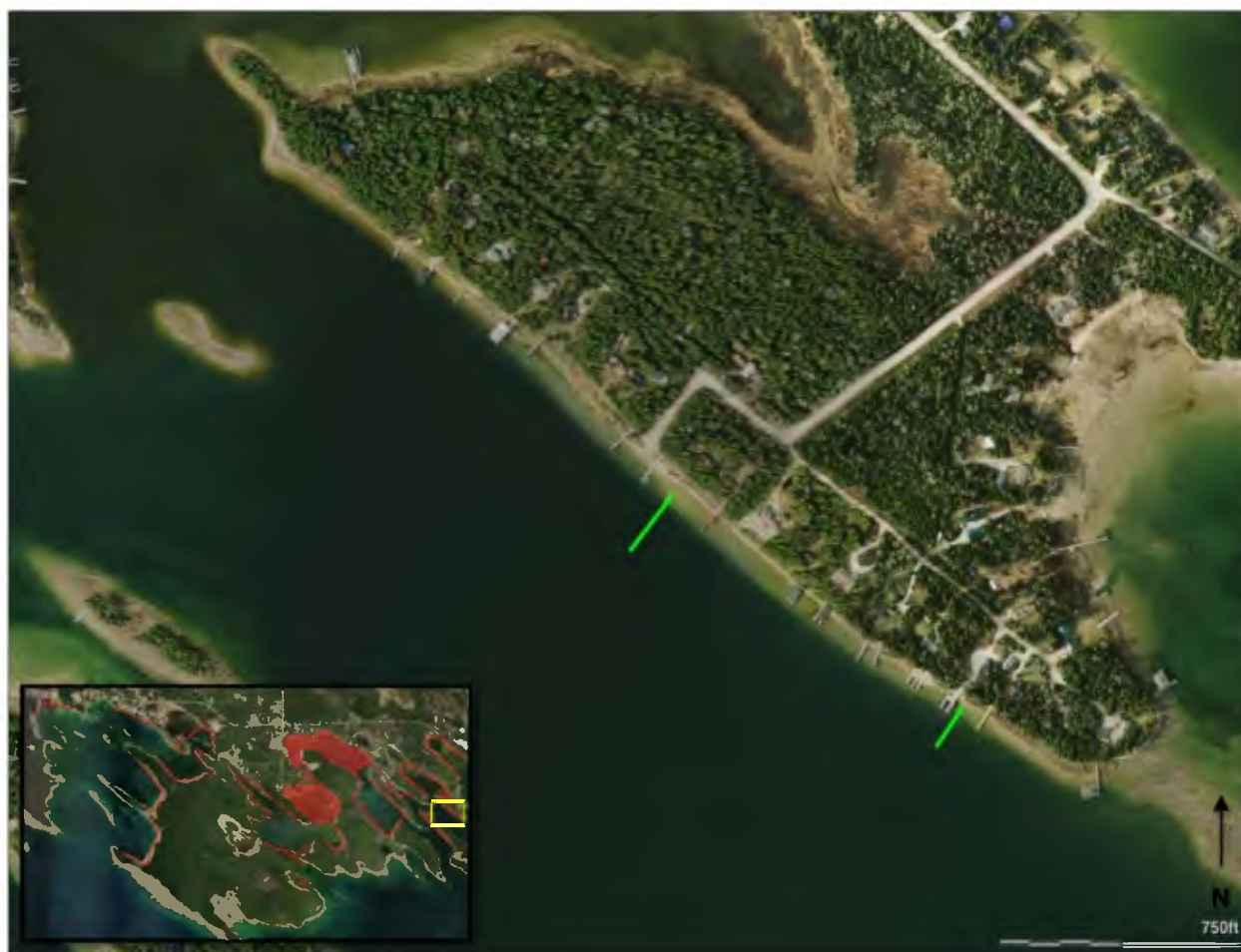


Figure 3.8 Islington Channel Eurasian watermilfoil AVAS map.

Species	CC%
Alternate watermilfoil	0.04
Blunt pondweed	0.08
Bulrush	21.62
Cattail	2.73
Chara	8.96
Clasping Leaf pondweed	0.58
Coontail	0.08
Elodea	1.65
Eelgrass	2.96
Eurasian watermilfoil	27.81
Flatstem pondweed	0.12
Fries pondweed	0.46
Illinois pondweed	2.19
Large Leaf pondweed	2.50
Marigold	0.08
Naiad	0.58
Nitella	0.23
Northern watermilfoil	0.46
Reed Canary Grass	1.58
Robbins/Fern pondweed	0.04
Variable pondweed	0.90
Water Stargrass	0.08
Whorled watermilfoil	0.27

Key	Percent Cumulative Cover (%CC) Range
A	1-2%
B	3-20%
C	21-60%
D	61-100%

— AVAS transect line



Species	CC%
Alternate watermilfoil	0.50
Bulrush	0.50
Buttercup/Water buttercup	0.50
Chara	1.00
Clasping Leaf pondweed	1.00
Elodea	1.00
Mare's Tail	1.00
Spikerush	0.50
Stiff pondweed	1.00
Variable pondweed	1.00
Whorled watermilfoil	1.00

Key	Percent Cumulative Cover (%CC) Range
A	1-2%
B	3-20%
C	21-60%
D	61-100%

— AVAS transect line

Figure 3.9 Lakeside Landing Eurasian watermilfoil AVAS map.



Species	CC%
Bulrush	40.00
Chara	10.00
Clasping Leaf pondweed	5.00
Elodea	0.50
Eelgrass	1.00
Eurasian watermilfoil	5.50
Large Leaf pondweed	20.00
Naiad	1.00
Variable pondweed	0.50

Key	Percent Cumulative Cover (%CC) Range
A	1-2%
B	3-20%
C	21-60%
D	61-100%

— AVAS transect line

Figure 3.10 Mackinac Bay Eurasian watermilfoil AVAS map.



Figure 3.11 McKay Bay Eurasian watermilfoil AVAS map.

Species	CC%
Alternate watermilfoil	2.50
Bulrush	On shore
Cattail	On shore
Chara	13.00
Clasping Leaf pondweed	2.75
Elodea	2.75
Eurasian watermilfoil	0.50
Marigold	0.25
Pickrelweed	On shore
Robbins/Fern pondweed	0.25
Spikerush	0.50
Stiff pondweed	0.25
Variable pondweed	0.50
White waterlily	0.25
Whorled watermilfoil	5.25

Key	Percent Cumulative Cover (%CC) Range
A	1-2%
B	3-20%
C	21-60%
D	61-100%

— AVAS transect line



Figure 3.12 Middle Entrance Eurasian watermilfoil AVAS map.

Species	CC%
Bulrush	3.67
Chara	40.00
Clasping Leaf pondweed	1.00
Elodea	0.67
Eelgrass	0.67
Eurasian watermilfoil	0.67
Flatstem pondweed	0.67
Fries pondweed	0.33
Naiad	1.00
Robbins/Fern pondweed	0.33
Variable pondweed	0.67
Whorled watermilfoil	1.00

Key	Percent Cumulative Cover (%CC) Range
A	1-2%
B	3-20%
C	21-60%
D	61-100%

— AVAS transect line

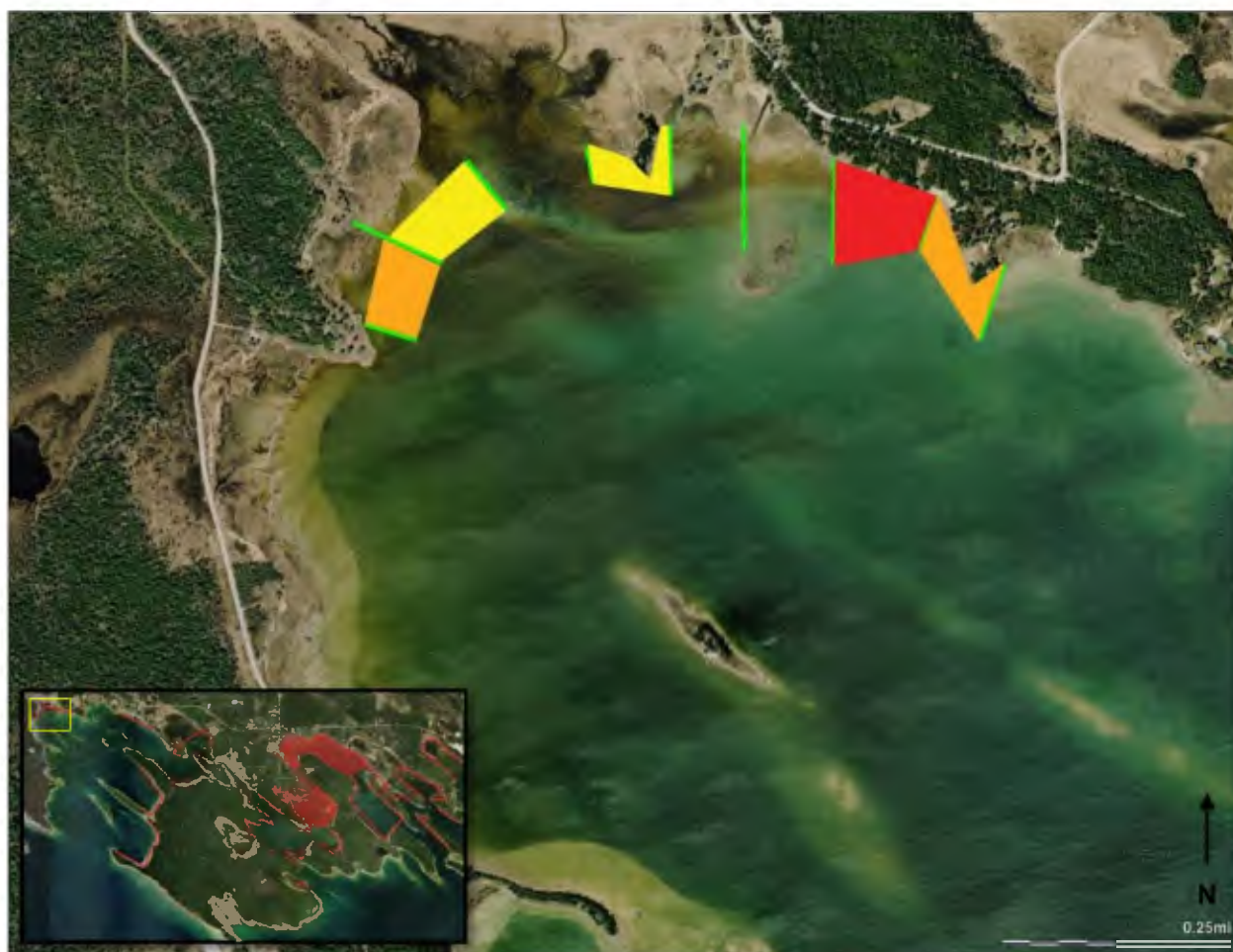


Figure 3.13 Mismar Bay Eurasian watermilfoil AVAS map.

Species	CC%
Alternate watermilfoil	2.44
Bulrush	2.56
Chara	16.89
Clasping Leaf pondweed	0.22
Eurasian watermilfoil	6.89
Needle spikerush	0.22
Phragmites	<i>On shore</i>
Sago pondweed	0.11
Spadderdock	1.11
Variable pondweed	1.56
Water Stargrass	0.22
Whorled watermilfoil	5.78
Bladderwort	0.11

Key	Percent Cumulative Cover (%CC) Range
A	1-2%
B	3-20%
C	21-60%
D	61-100%

AVAS transect line



Figure 3.14 Moscoe Bay Eurasian watermilfoil AVAS map.

Species	CC%
Alternate watermilfoil	3.43
Bulrush	1.86
Cattail	0.14
Buttercup/White water buttercup	0.43
Chara	12.29
Clasping Leaf pondweed	3.57
Elodea	3.43
Eelgrass	1.86
Eurasian watermilfoil	0.43
Flatstem pondweed	0.43
Fries pondweed	0.29
Mare's Tail	0.29
Naiad	1.86
Northern watermilfoil	9.00
Phragmites	0.14
Robbins/Fern pondweed	1.86
Spikerush	6.00
Stiff pondweed	0.71
Variable pondweed	0.57
Whorled watermilfoil	3.43

Key	Percent Cumulative Cover (%CC) Range
A	1-2%
B	3-20%
C	21-60%
D	61-100%

— AVAS transect line



Figure 3.15 Marquette Bay Eurasian watermilfoil AVAS map.

Species	CC%
Alternate watermilfoil	3.06
Bulrush	<i>On shore</i>
Cattail	0.06
Bushy pondweed	0.60
Chara	37.88
Clasping Leaf pondweed	14.24
Elodea	5.94
Eelgrass	0.18
Eurasian watermilfoil	1.88
Flatstem pondweed	0.12
Mare's Tail	0.76
Naiad	0.06
Needle spikerush	0.06
Northern watermilfoil	0.41
Phragmites	<i>On shore</i>
Reed Canary Grass	<i>On shore</i>
Robbins/Fern pondweed	0.06
Sago pondweed	0.06
Variable pondweed	0.24
Whitestem pondweed	0.18
Whorled watermilfoil	0.12

Key	Percent Cumulative Cover (%CC) Range
A	1-2%
B	3-20%
C	21-60%
D	61-100%

— AVAS transect line

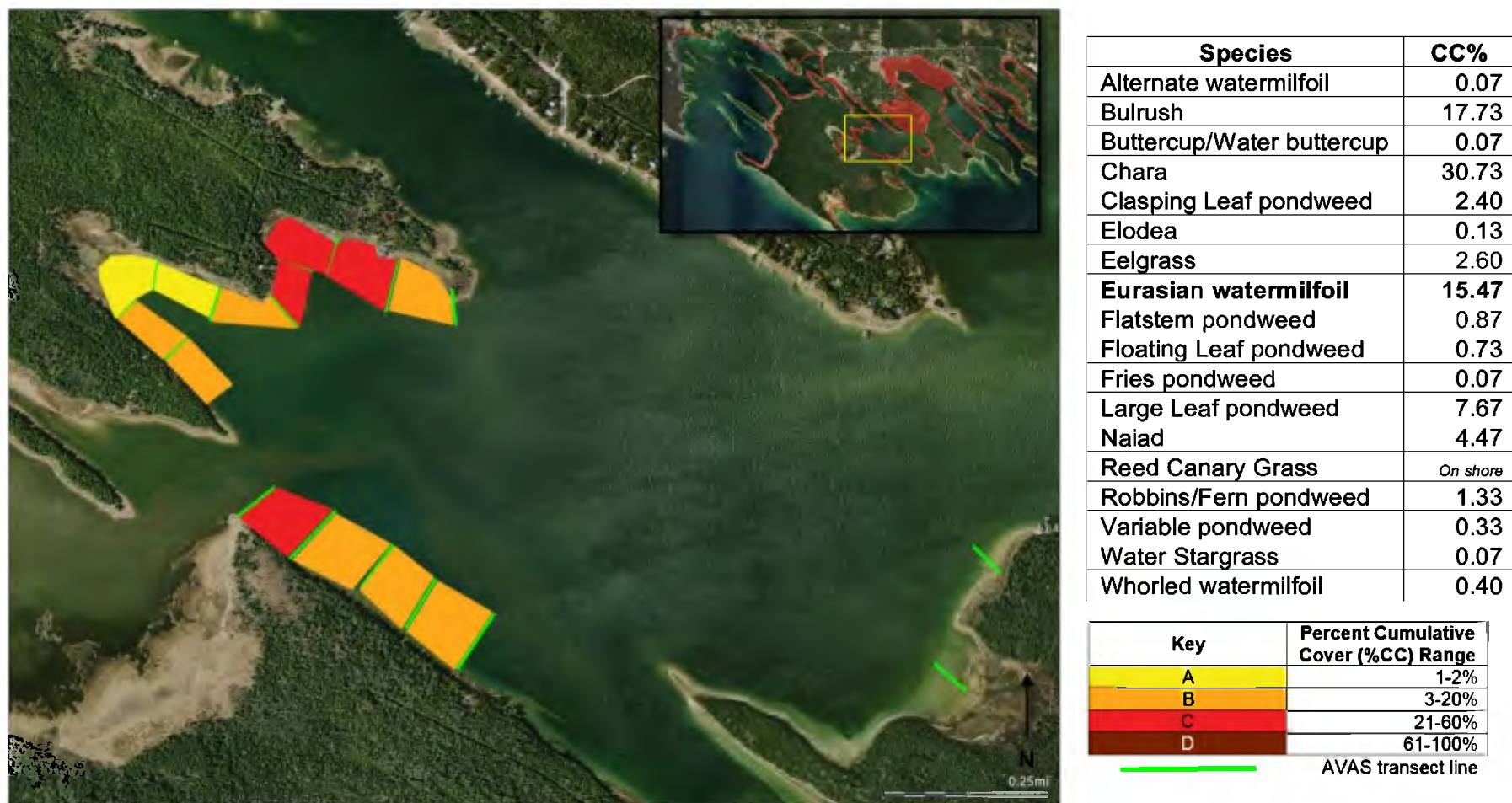


Figure 3.16 Muskellunge Bay Eurasian watermilfoil AVAS map.



Species	CC%
Arrowhead	1.00
Blunt pondweed	1.00
Bulrush	<i>On shore</i>
Buttercup/Water buttercup	1.00
Chara	40.00
Clasping Leaf pondweed	1.00
Elodea	1.00
Eelgrass	10.00
Eurasian watermilfoil	1.00
Mare's Tail	1.00
Naiad	1.00

Key	Percent Cumulative Cover (%CC) Range
A	1-2%
B	3-20%
C	21-60%
D	61-100%

AVAS transect line

Figure 3.17 Peck Bay Eurasian watermilfoil AVAS map.



Species	CC%
Blunt pondweed	1.00
Chara	1.00
Clasping Leaf pondweed	1.00
Elodea	1.00
Eurasian watermilfoil	1.00

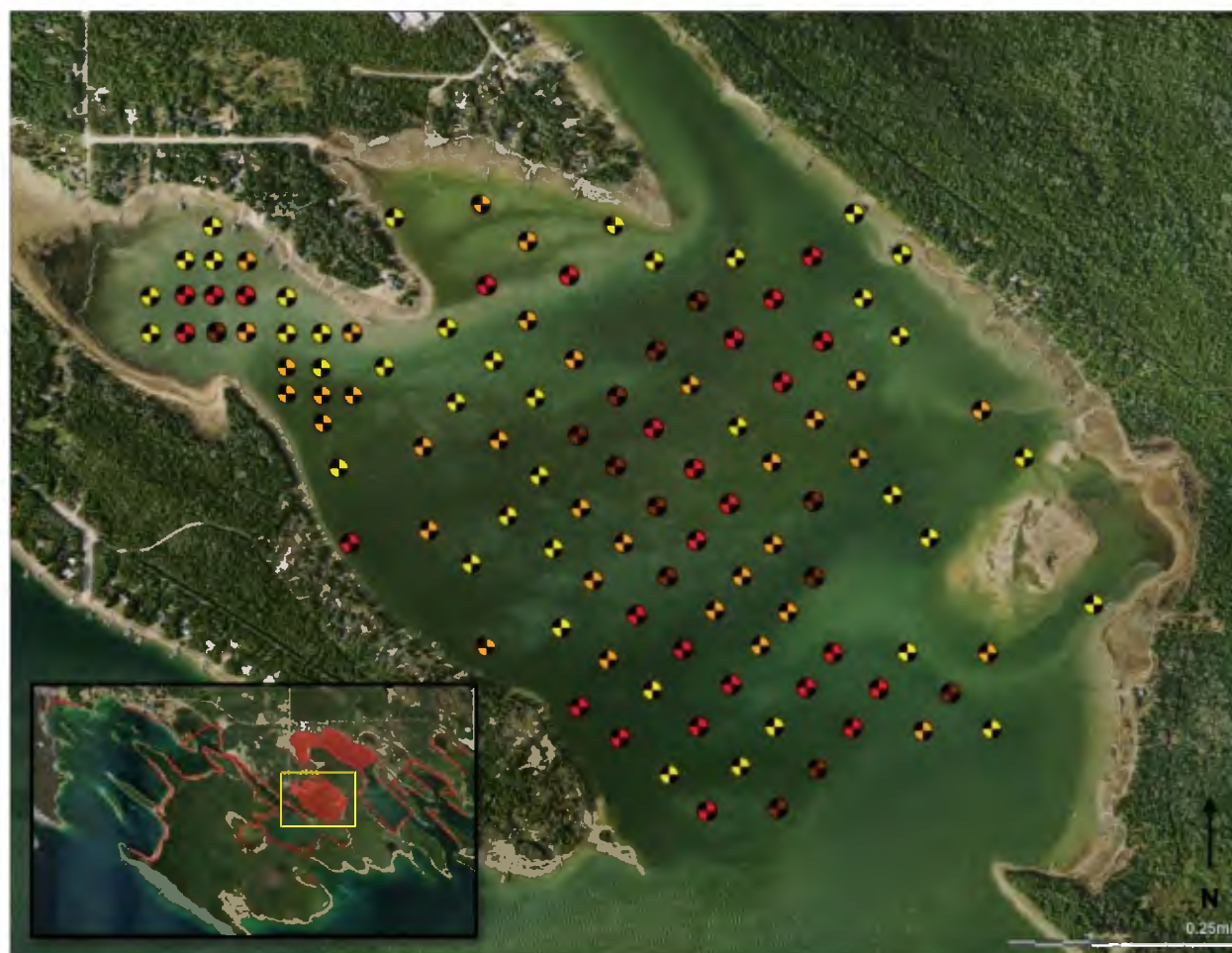
Key	Percent Cumulative Cover (%CC) Range
A	1-2%
B	3-20%
C	21-60%
D	61-100%

AVAS transect line

Figure 3.18 Scammon's Harbor Eurasian watermilfoil AVAS map.



Figure 3.19a Sheppard's Bay Point Intercept map.



Key	Percent Rake Cover
A	1-2%
B	3-20%
C	21-60%
D	61-100%

Figure 3.19b Sheppard's Bay Eurasian watermilfoil Point Intercept map.

Table 3.19 Sheppard's Bay Point Intercept results.

Common Name	Scientific Name	Total Occurrence	Percent of Points (147)
Blunt pondweed	<i>Potamogeton obtusifolius</i>	1	>1
Bulrush	<i>Scirpus spp.</i>	4	3
Bushy pondweed/Slender naiad	<i>Najas flexilis</i>	61	41
Cattail (Narrow leaf)	<i>Typha angustifolia</i>	1	>1
Chara	<i>Chara spp.</i>	73	50
Clasping Leaf pondweed	<i>Potamogeton richardsonii</i>	35	24
Coontail	<i>Ceratophyllum demersum</i>	2	1
Elodea	<i>Elodea canadensis</i>	10	7
Eelgrass	<i>Vallisneria americana</i>	71	48
Eurasian watermilfoil	<i>Myriophyllum spicatum</i>	116	79
Flatstem pondweed	<i>Potamogeton zosteriformis</i>	7	5
Fries pondweed	<i>Potamogeton friesii</i>	1	>1
Illinois pondweed	<i>Potamogeton illinoensis</i>	10	7
Large Leaf pondweed	<i>Potamogeton amplifolius</i>	5	0.3
Marigold	<i>Bidens beckii</i>	1	>1
Nitella	<i>Nitella sp.</i>	14	1
Robbins'/Fern pondweed	<i>Potamogeton robbinsii</i>	10	7
Stiff pondweed	<i>Potamogeton strictifolius</i>	1	>1
Thin-leaf pondweed	<i>Potamogeton pusillus</i>	2	1
Variable pondweed	<i>Potamogeton gramineus</i>	17	12
Water Stargrass	<i>Heteranthera dubia</i>	4	3
Whorled watermilfoil	<i>Myriophyllum verticillatum</i>	4	3



Figure 3.20 Smith's Bay Eurasian watermilfoil AVAS map.

Species	CC%
Bulrush	11.22
Cattail	<i>On shore</i>
Chara	16.89
Clasping Leaf pondweed	0.44
Elodea	0.33
Eelgrass	21.44
Eurasian watermilfoil	41.11
Flatstem pondweed	0.11
Floating Leaf pondweed	0.22
Large Leaf pondweed	5.00
Naiad	0.67
Northern watermilfoil	4.78
Phragmites	<i>On shore</i>
Pickerelweed	0.11
Reed Canary Grass	<i>On shore</i>
Robbins/Fern pondweed	2.22
Sago pondweed	0.11
Spadderdock	0.22
Variable pondweed	1.33
Water Stargrass	1.67
Whorled watermilfoil	1.67

Key	Percent Cumulative Cover (%CC) Range
A	1-2%
B	3-20%
C	21-60%
D	61-100%

AVAS transect line



Figure 3.21 Snow's Channel Eurasian watermilfoil AVAS map.

Species	CC%
Bulrush	10.40
Cattail	0.50
Chara	21.40
Clasping Leaf pondweed	0.73
Coontail	0.03
Elodea	0.45
Eelgrass	7.33
Eurasian watermilfoil	42.00
Flatstem pondweed	0.80
Floating Leaf pondweed	0.03
Large Leaf pondweed	3.13
Lobelia	0.03
Marigold	0.05
Naiad	2.23
Northern watermilfoil	0.05
Phragmites	0.03
Purple Loosestrife	0.05
Reed Canary Grass	<i>On shore</i>
Robbins/Fern pondweed	0.23
Thinleaf pondweed	0.05
Variable pondweed	0.35
Water Stargrass	0.70
Whorled watermilfoil	0.58

Key	Percent Cumulative Cover (%CC) Range
A	1-2%
B	3-20%
C	21-60%
D	61-100%

— AVAS transect line



Species	CC%
Alternate watermilfoil	0.33
Bulrush	26.67
Chara	40.00
Clasping Leaf pondweed	3.67
Elodea	0.67
Eelgrass	0.67
Eurasian watermilfoil	4.00
Flatstem pondweed	0.33
Large Leaf pondweed	6.67
Marigold	0.33
Naiad	0.67
Nitella	0.33
Robbins/Fern pondweed	0.67
Variable pondweed	1.00
Whorled watermilfoil	3.67

Key	Percent Cumulative Cover (%CC) Range
A	1-2%
B	3-20%
C	21-60%
D	61-100%

— AVAS transect line

Figure 3.22 Urie Bay Eurasian watermilfoil AVAS map.



Species	CC%
Bulrush	<i>On shore</i>
Chara	3.67
Clasping Leaf pondweed	0.33
Eurasian watermilfoil	0.33
Needle spikerush	0.33
Phragmites	<i>On shore</i>
Variable pondweed	0.33

Key	Percent Cumulative Cover (%CC) Range
A	1-2%
B	3-20%
C	21-60%
D	61-100%

— AVAS transect line

Figure 3.23 Voight Bay Eurasian watermilfoil AVAS map.



Species	CC%
Alternate watermilfoil	4.50
Bulrush	<i>On shore</i>
Chara	43.50
Clasping Leaf pondweed	2.55
Elodea	1.25
Eelgrass	0.70
Eurasian watermilfoil	10.75
Flatstem pondweed	0.30
Naiad	0.05
Northern watermilfoil	0.55
Phragmites	<i>On shore</i>
Robbins/Fern pondweed	1.15
Sago pondweed	0.05
Spikerush	0.10
Stiff pondweed	0.70
Thinleaf pondweed	6.00
Variable pondweed	6.80
Whorled watermilfoil	5.65

Key	Percent Cumulative Cover (%CC) Range
A	1-2%
B	3-20%
C	21-60%
D	61-100%

— AVAS transect line

Figure 3.24 Wilderness Bay Eurasian watermilfoil AVAS map.