Appendix A – Upper Mud Lake Plant Statistics 2017

Table 1: 2017 Aquatic Plant Community Statistics, Upper Mud Lake, Dane County, WI

Total number of sites visited	357
Total number of sites with vegetation	316
Total number of sites shallower than maximum depth of plants	355
Frequency of occurrence at sites shallower than maximum depth of plants	89.01
Simpson Diversity Index	0.77
Maximum depth of plants (ft)**	14.00
Number of sites sampled using rake on Rope (R)	0
Number of sites sampled using rake on Pole (P)	361
Average number of all species per site (shallower than max depth)	1.99
Average number of all species per site (veg. sites only)	2.24
Average number of native species per site (shallower than max depth)	1.66
Average number of native species per site (veg. sites only)	1.89
Species Richness	17*
Species Richness (including visuals)	18*
*Filamentous algae is no longer included in species richness by WI DNR	

Table 2: 2017 Aquatic Plant Taxa-Specific, Upper Mud Lake, Dane County, WI

Species	Frequency of occurrence within vegetated areas (%)	Frequency of occurrence at sites shallower than maximum depth of plants	Relative Frequency (%)	Number of sites where species found	Average Rake Fullness
Eurasian water milfoil	36.39	32.30	16.22	115	1.04
Coontail	95.57	84.83	42.60	302	1.53
Muskgrasses	1.27	1.12	0.56	4	1
Elodea, Common waterweed	22.47	19.94	10.01	71	1.07
Water star-grass	12.66	11.24	5.64	40	1
Small duckweed	3.48	3.09	1.55	11	1
Forked duckweed	0.63	0.56	0.28	2	1
American lotus	0.63	0.56	0.28	2	1
Spatterdock	1.27	1.12	0.56	4	1
White water lily	2.85	2.53	1.27	9	1
Leafy pondweed	1.27	1.12	0.56	4	1
Clasping-leaf pondweed	5.70	5.06	2.54	18	1
Flat-stem pondweed	6.33	5.62	2.82	20	1
Large duckweed	7.28	6.46	3.24	23	1
Sago pondweed	10.13	8.99	4.51	32	1.06
Cattail	0.32	0.28	0.14	1	1
Wild celery	12.34	10.96	5.50	39	1.03
Common watermeal	3.80	3.37	1.69	12	1
Filamentous algae	25.95	23.03	*	82	1.04
*Relative frequency of Filamentous algae is no longer calculated by WI DNR					

Table 3: Historical Floristic Quality Index, Upper Mud Lake, Dane County, WI

Genus	Species	Common Name	2012	2017
Ceratophyllum	*demersum*	Coontail	3	3
Chara	*sp.*	Muskgrass	---	7
Elodea	*canadensis*	Common waterweed	3	3
Elodea	*nuttallii*	Slender waterweed	7	---
Heteranthera	*dubia*	Water star-grass	6	6
Lemna	*minor*	Small duckweed	4	4
Lemna	*trisulca*	Forked duckweed	6	6
Nelumbo	*lutea*	American lotus	---	7
Nuphar	*variegata*	Spatterdock	--	6
Nymphaea	*odorata*	White water-lily	6	6
Potamogeton	*foliosus*	Leafy pondweed	---	6
Potamogeton	*richardsonii*	Clasping-leaf pondweed	5	5
Potamogeton	*zosteriformis*	Flat-stem pondweed	6	6
Spirodela	*polyrhiza*	Large duckweed	---	5
Stuckenia	*pectinata*	Sago pondweed	3	3
Typha	*sp.*	Cattail	---	1
Vallisneria	*americana*	Wild celery	6	6
Wolffia	*columbiana*	Common watermeal	5	5
Zannichellia	*palustris*	Horned pondweed	7	---
		Total Species	13	19
		Mean C	5.15	5
		Floristic Quality Index (FQI)	**18.58**	**20.62**

Please note: There is no Coefficient of Conservatism for exotic species such as Eurasian Watermilfoil or for species not identified to the species level (*Sagittaria sp.*).

Coefficient of Conservatism C

0-3 taxa found in wide variety of plant communities and very tolerant of disturbance.
4-6 taxa typically associated with specific plant communities and tolerate moderate disturbance.
7-8 taxa found in narrow range of plant communities and tolerate minor disturbance.

Table 4: Historical Aquatic Plant Community Statistics, Yahara River, Dane County, WI

River Section	Monona to Upper Mud	
Year	**2012**	**2017**
F.o.o. at sites shallower than maximum depth of plants	88.78	89.01
Most Dominant Species	Coontail	Coontail
	Filamentous algae	Filamentous algae
	Eurasian water-milfoil	Eurasian water-milfoil
	Elodea	Elodea
	Common watermeal	Water stargrass
Maximum Depth of Plants	18	16
Species Richness	15	18
Community FQI	18.58	20.62
Average Coefficient of Conservatism	5.15	5

Appendix B – Yahara River Plant Statistics

Table 5: 2017 Aquatic Plant Community Statistics, Yahara River, Dane County, WI

Aquatic Plant Community Statistics	2017 - By Section		
	Monona to Upper Mud	Waubesa to Lower Mud	Lower Mud to Kegonsa
Total number of sites visited	137	108	196
Total number of sites with vegetation	117	105	182
Total number of sites shallower than maximum depth of plants	137	108	196
Frequency of occurrence at sites shallower than maximum depth of plants	85.40	97.22	92.86
Simpson Diversity Index	0.82	0.74	0.73
Maximum depth of plants (ft)**	6.00	5.50	6.00
Number of sites sampled using rake on Rope (R)	0	0	0
Number of sites sampled using rake on Pole (P)	137	109	196
Average number of all species per site (shallower than max depth)	1.76	2.00	1.97
Average number of all species per site (veg. sites only)	2.06	2.07	2.13
Average number of native species per site (shallower than max depth)	1.48	1.95	1.94
Average number of native species per site (veg. sites only)	1.77	2.02	2.09
Species Richness	15*	12*	9*
Species Richness (including visuals)	17*	18*	15*
*Filamentous algae is no longer included in species richness by WI DNR			

Table 6: 2017 Aquatic Plant Taxa-Specific Statistics, Yahara River, Dane County, WI

Species	River Section	Frequency of occurrence within vegetated areas (%)	Frequency of occurrence at sites shallower than maximum depth of plants	Relative Frequency (%)	Number of sites where species found
Eurasian water milfoil	Monona to Upper Mud	31.62	27.01	15.35	37
	Waubesa to Lower Mud	3.81	3.70	1.84	4
	Lower Mud to Kegonsa	3.30	3.06	1.55	6
Curly-leaf pondweed	Monona to Upper Mud	0.85	0.73	0.41	1
	Waubesa to Lower Mud	0.95	0.93	0.46	1
	Lower Mud to Kegonsa	-	-	-	-
Coontail	Monona to Upper Mud	71.79	61.31	34.85	84
	Waubesa to Lower Mud	25.71	25.00	12.44	27
	Lower Mud to Kegonsa	43.96	40.82	20.67	80
Muskgrasses	Monona to Upper Mud	5.98	5.11	2.90	7
	Waubesa to Lower Mud	38.10	37.04	18.43	40
	Lower Mud to Kegonsa	50.00	46.43	23.51	91
Elodea, Common waterweed	Monona to Upper Mud	5.13	4.38	2.49	6
	Waubesa to Lower Mud	7.62	7.41	3.69	8
	Lower Mud to Kegonsa	0.55	0.51	0.26	1
Water star-grass	Monona to Upper Mud	12.82	10.95	6.22	15
	Waubesa to Lower Mud	34.29	33.33	16.59	36
	Lower Mud to Kegonsa	30.22	28.06	14.21	55
White water lily	Monona to Upper Mud	14.53	12.41	7.05	17
	Waubesa to Lower Mud	-	-	-	-
	Lower Mud to Kegonsa	0.55	0.51	0.26	1
Small duckweed	Monona to Upper Mud	11.11	9.49	5.39	13
	Waubesa to Lower Mud	0.95	0.93	0.46	1
	Lower Mud to Kegonsa	-	-	-	-
Leafy pondweed	Monona to Upper Mud	-	-	-	-
	Waubesa to Lower Mud	3.81	3.70	1.84	4
	Lower Mud to Kegonsa	-	-	-	-
Clasping-leaf pondweed	Monona to Upper Mud	5.98	5.11	2.90	7
	Waubesa to Lower Mud	0.95	0.93	0.46	1
	Lower Mud to Kegonsa	-	-	-	-
Flat-stem pondweed	Monona to Upper Mud	2.56	2.19	1.24	3
	Waubesa to Lower Mud	-	-	-	-
	Lower Mud to Kegonsa	1.65	1.53	0.78	3

Table 6 continued: 2017 Aquatic Plant Taxa-Specific Statistics, Yahara River, Dane County, WI

Species	River Section	Frequency of occurrence within vegetated areas (%)	Frequency of occurrence at sites shallower than maximum depth of plants	Relative Frequency (%)	Number of sites where species found
White water crowfoot	Monona to Upper Mud	0.85	0.73	0.41	1
	Waubesa to Lower Mud	-	-	-	-
	Lower Mud to Kegonsa	-	-	-	-
Large duckweed	Monona to Upper Mud	3.42	2.92	1.66	4
	Waubesa to Lower Mud	0.95	0.93	0.46	1
	Lower Mud to Kegonsa				
Sago pondweed	Monona to Upper Mud	1.71	1.46	0.83	2
	Waubesa to Lower Mud	-	-	-	-
	Lower Mud to Kegonsa	0.55	0.51	0.26	1
Wild celery	Monona to Upper Mud	31.62	27.01	15.35	37
	Waubesa to Lower Mud	88.57	86.11	42.86	93
	Lower Mud to Kegonsa	81.87	76.02	38.50	149
Common watermeal	Monona to Upper Mud	5.98	5.11	2.90	7
	Waubesa to Lower Mud	0.95	0.93	0.46	1
	Lower Mud to Kegonsa	-	-	-	-
Filamentous algae	Monona to Upper Mud	26.50	22.63	*	31
	Waubesa to Lower Mud	3.81	3.70	*	4
	Lower Mud to Kegonsa	3.30	3.06	*	6

Table 7: Historical Floristic Quality Index, Yahara River, Dane County, WI

Genus	Species	Common Name	Coefficient of Conservatism					
			Monona to Upper Mud		2012 Waubesa to Lower Mud		2012 Lower Mud to Kegonsa	
			2012	2017	2012	2017	2012	2017
Ceratophyllum	demersum	Coontail	3	3	3	3	3	3
Chara	sp.	Muskgrass	7	7	---	7	7	7
Elodea	canadensis	Common waterweed	3	3	3	3	3	3
Heteranthera	dubia	Water star-grass	6	6	6	6	6	6
Lemna	minor	Small duckweed	4	4	4	---	4	---
Najas	flexilis	Slender Naiad	6	---	---	---	---	---
Nymphaea	odorata	White water-lily	6	6	6	6	6	6
Potamogeton	foliosus	Leafy pondweed	---	---	---	6	---	---
Potamogeton	richardsonii	Clasping-leaf pondweed	5	5	5	---	5	----
Potamogeton	zosteriformis	Flat-stem pondweed	6	6	6	6	6	6
Ranunculus	aquatilis	White water crowfoot	---	8	---	---	---	---
Spirodela	polyrhiza	Large duckweed	---	5	---	---	---	---
Stuckenia	pectinata	Sago pondweed	3	3	---	3	---	3
Vallisneria	americana	Wild celery	6	6	6	6	6	6
Wolffia	columbiana	Common watermeal	5	5	---	5	5	---
Zannichellia	palustris	Horned pondweed	7	---	7	---	7	---
		Total Species	13	13	9	10	11	8
		Mean C	5.15	5.15	5.11	5	5.27	5
		Floristic Quality Index (FQI)	18.58	18.58	15.33	15.81	17.49	14.14

Please note: There is no Coefficient of Conservatism for exotic species such as Eurasian Watermilfoil or for species not identified to the species level (*Sagittaria sp.*).

Coefficient of Conservatism C

0-3 taxa found in wide variety of plant communities and very tolerant of disturbance.
4-6 taxa typically associated with specific plant communities and tolerate moderate disturbance.
7-8 taxa found in narrow range of plant communities and tolerate minor disturbance.

Table 8: Historical Aquatic Plant Community Statistics, Yahara River, Dane County, WI

River Section	Monona to Upper Mud		Waubesa to Lower Mud		Lower Mud to Kegonsa	
Year	**2012**	**2017**	**2012**	**2017**	**2012**	**2017**
F.o.o. at sites shallower than maximum depth of plants	97.81	85.40	100	97.22	100	92.86
Most Dominant Species	Coontail	Coontail	Wild celery	Wild celery	Wild celery	Wild celery
	Wild celery	Wild celery	Water star-grass	Muskgrass	Water star-grass	Muskgrass
	Filamentous algae	Eurasian water-milfoil	Small duckweed	Water star-grass	Coontail	Coontail
	Eurasian water-milfoil	Filamentous algae	Filamentous algae	Leafy pondweed	Filamentous algae	Water star-grass
	Water star-grass	White water lily	Coontail	Filamentous algae	Small duckweed	Eurasian water-milfoil
Maximum Depth of Plants	4	6	3	5.5	5	6
Species Richness	16	15	11	12	13	9
Community FQI	18.58	18.58	15.33	15.81	17.49	14.14
Average Coefficient of Conservatism	5.15	5.15	5.11	5	5.27	5

Appendix C – Aquatic Invasive Species

Wisconsin Invasive Species Laws

Inspect your boat, trailer and equipment.
Remove any attached aquatic plants or animals (before launching, after loading & before transporting on a public highway)
Never Move live fish away from a waterbody.* Fish out of water are not considered live. Transport on ice is legal and recommended.
Buy minnows from a Wisconsin bait dealer and use leftover minnows only under certain conditions. *

*You may take leftover minnows purchased from a Wisconsin bait dealer away from any state water and use them again on that same water. You may use leftover minnows on other waters only if no lake or river water, or other fish were added to their container. See fishingwisconsin.org for more information.

Minnows

You may take live minnows purchased from a Wisconsin bait dealer (which includes Wisconsin registered fish farms) away from a waterbody if any of the following three conditions are met:

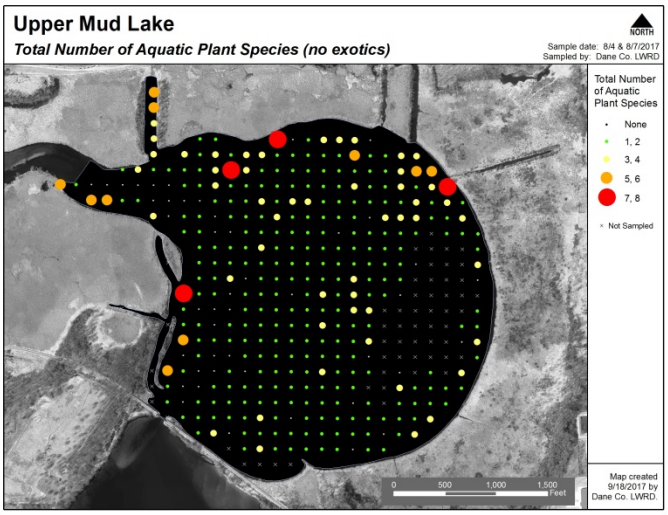
- Anglers can take purchased minnows away from a lake and use them again on that same waterbody.
- Anglers can also take purchased minnows away from a waterbody and use them elsewhere if no lake or river water or other fish were added to the bait container.
- Anglers can also take purchased minnows away from a waterbody for use elsewhere if they intend to preserve them as dead bait using approved methods.

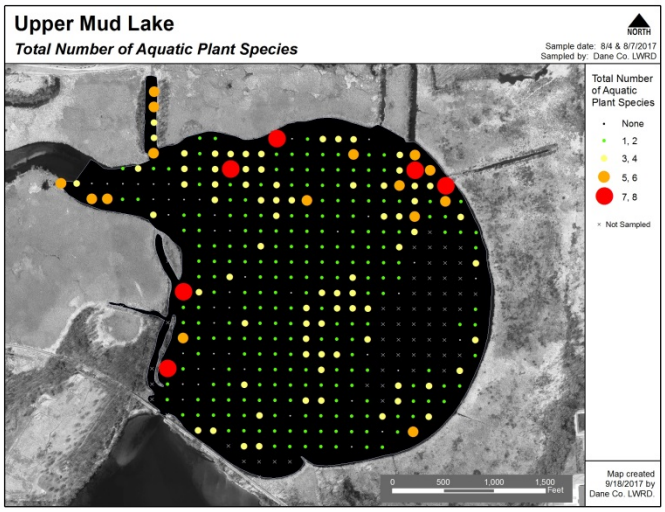
In each of these cases minnows may be transported in the amount of water needed to keep the minnows alive, up to 2 gallons. No other fish may be held in the minnow container.

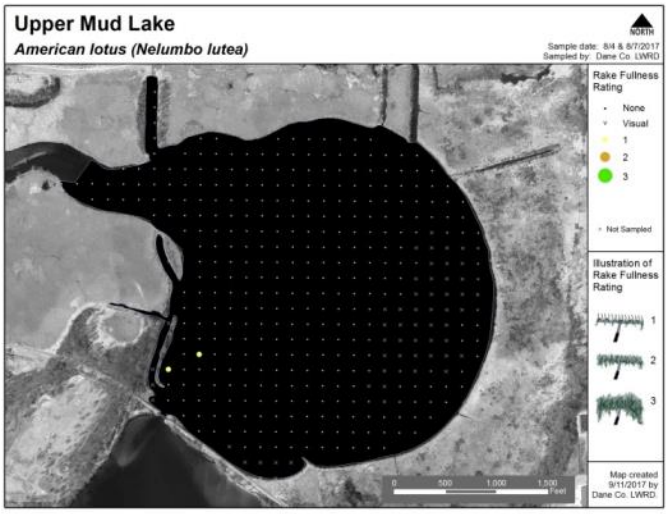
Additional Dane County Prevention Steps

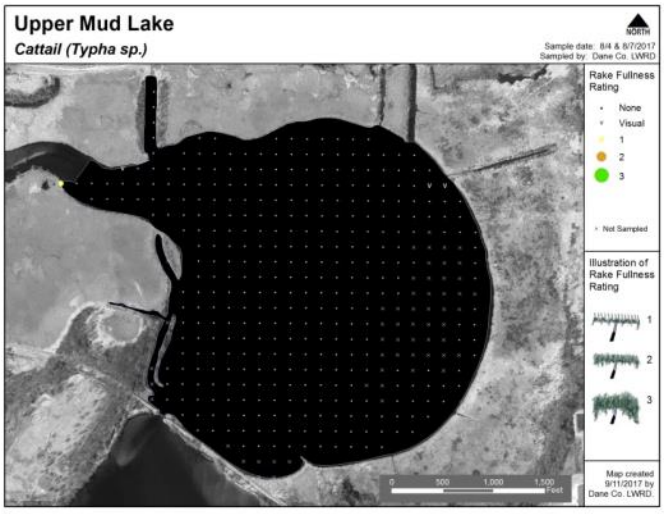
- Dane County staff will remove all vegetation, mud, and other debris that is accessible from the machines before moving them away from any waterbody. (Machines include boats, harvestors, barges, and elevators)
- Dane County staff will remove the machines from a waterbody for a minimum of five dry days before moving them to another waterbody.
- When it is not possible to wait for 5 days Dane County staff will use a 2% Virkon solution mixed no more than seven days prior to application and allowing 10 minutes of contact time before rinsing with hot water to disinfect the machines before moving to another waterbody.
- Dane County staff will try to plan to move only downstream when working in the Yahara river chain as an added layer of protection
- Per Wisconsin DNR protocol found here: http://dnr.wi.gov/topic/Invasives/disinfection.html

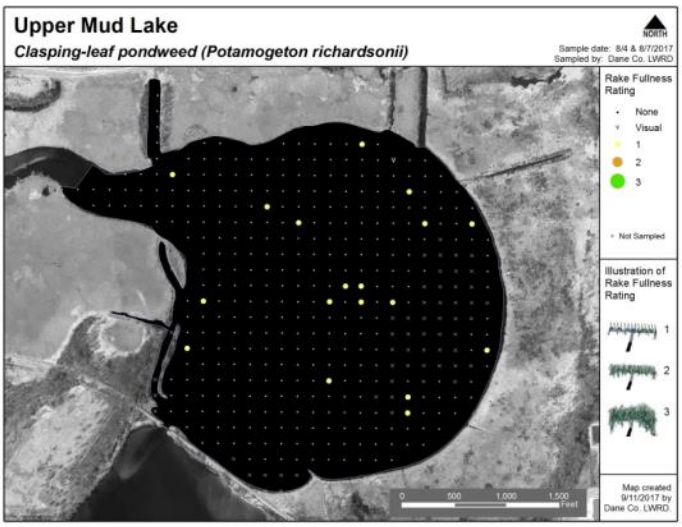
Appendix D – Mapped Plant Distributions for Upper Mud Lake

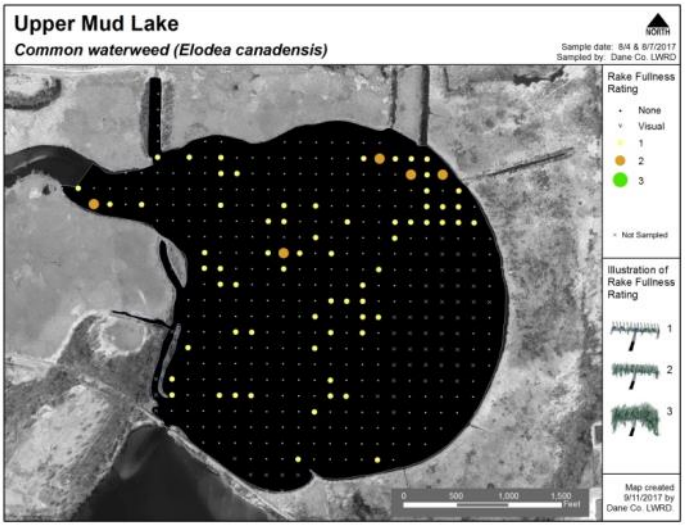


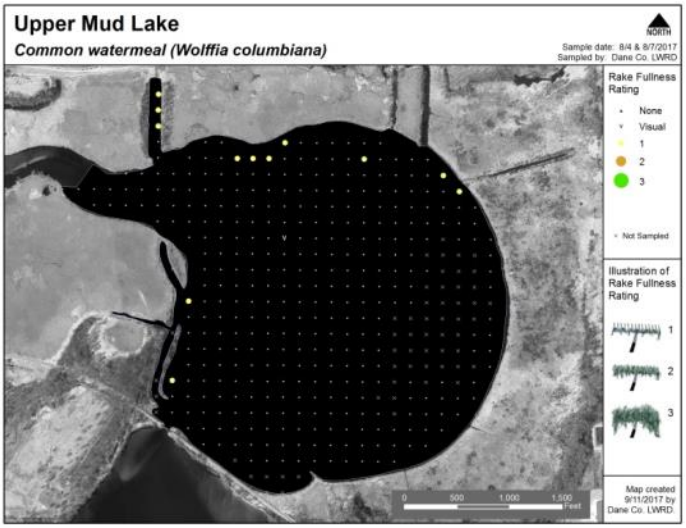


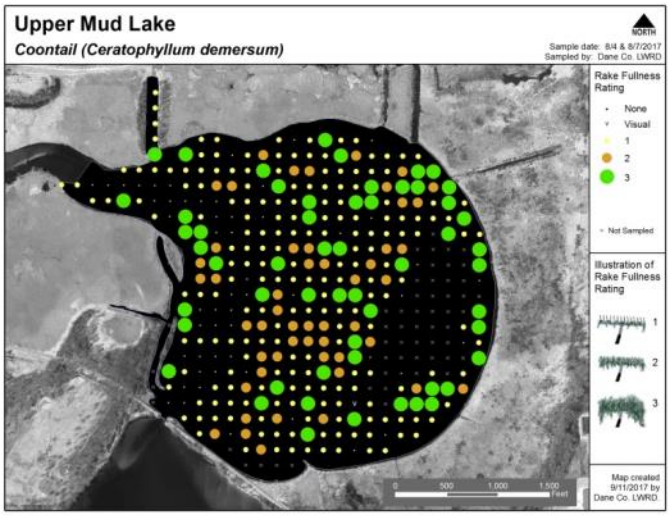


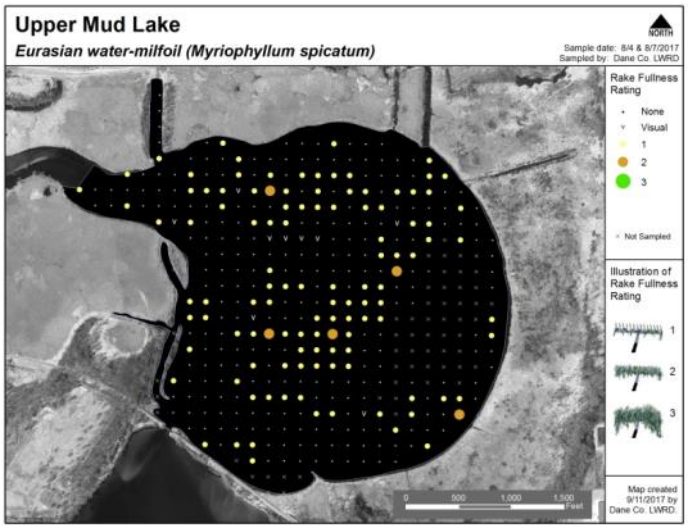


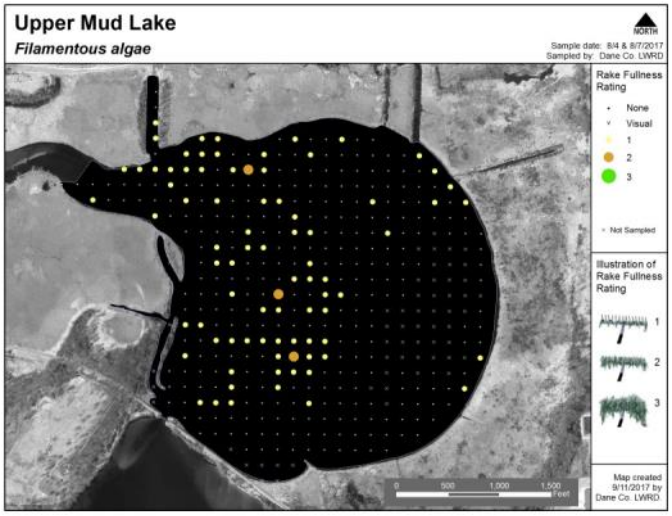


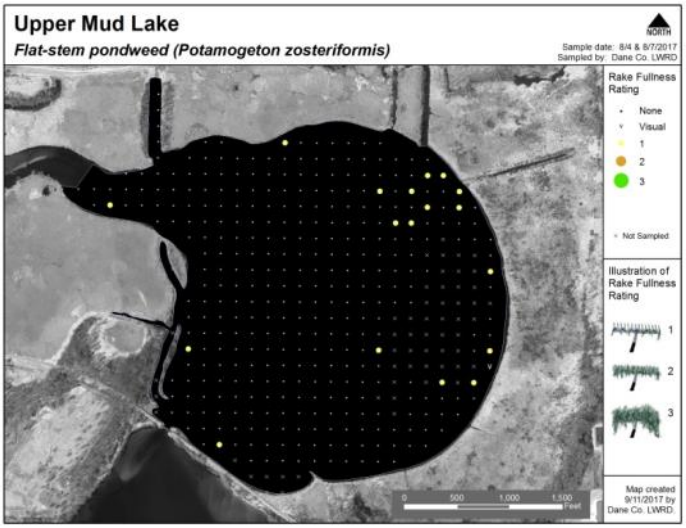


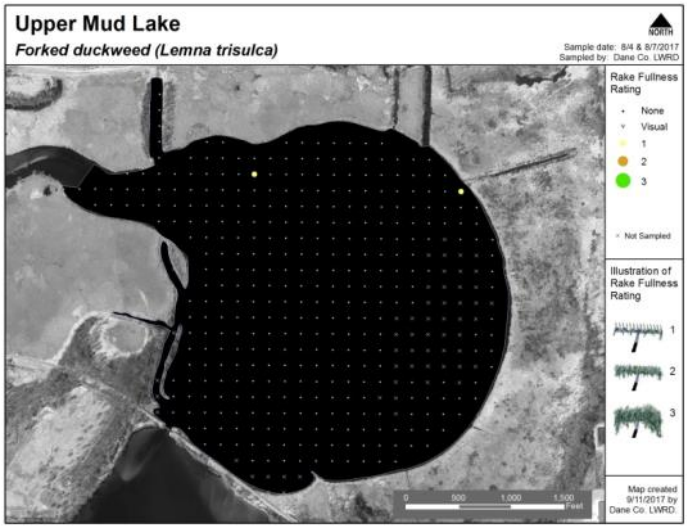

Upper Mud Lake
Common watermeal (Wolffia columbiana)
Sample date: 8/4 & 8/7/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
Illustration of Rake Fullness Rating
1
2
3
0 500 1,000 1,500 Feet
Map created 9/11/2017 by Dane Co. LWRD

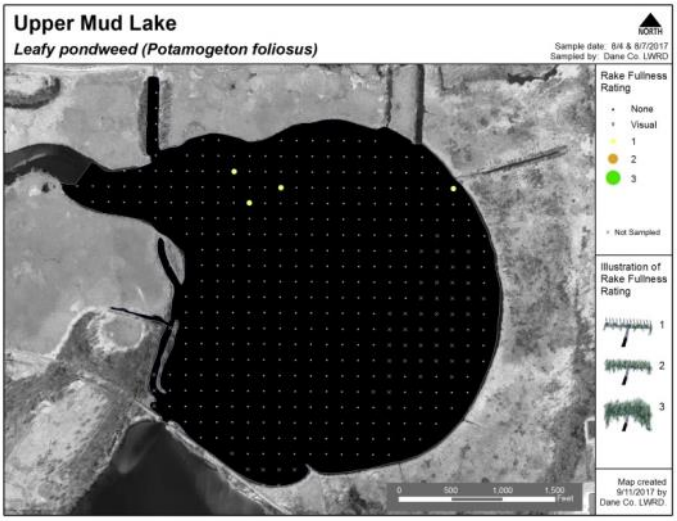

Upper Mud Lake
Coontail (Ceratophyllum demersum)
Sample date: 8/4 & 8/7/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
Illustration of Rake Fullness Rating
1
2
3
0 500 1,000 1,500 Feet
Map created 9/11/2017 by Dane Co. LWRD

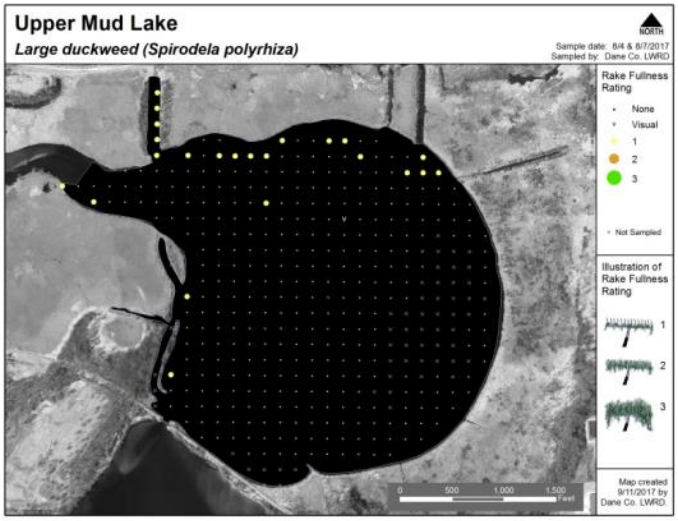

Upper Mud Lake
Eurasian water-milfoil (Myriophyllum spicatum)
Sample date: 8/4 & 8/7/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
Illustration of Rake Fullness Rating
1
2
3
0 500 1,000 1,500 Feet
Map created 9/11/2017 by Dane Co. LWRD

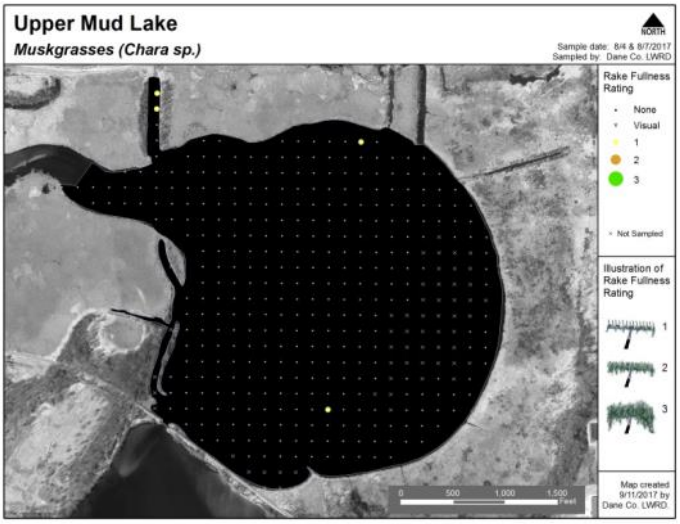

Upper Mud Lake
Filamentous algae
Sample date: 8/4 & 8/7/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
Illustration of Rake Fullness Rating
1
2
3
0 500 1,000 1,500 Feet
Map created 9/11/2017 by Dane Co. LWRD

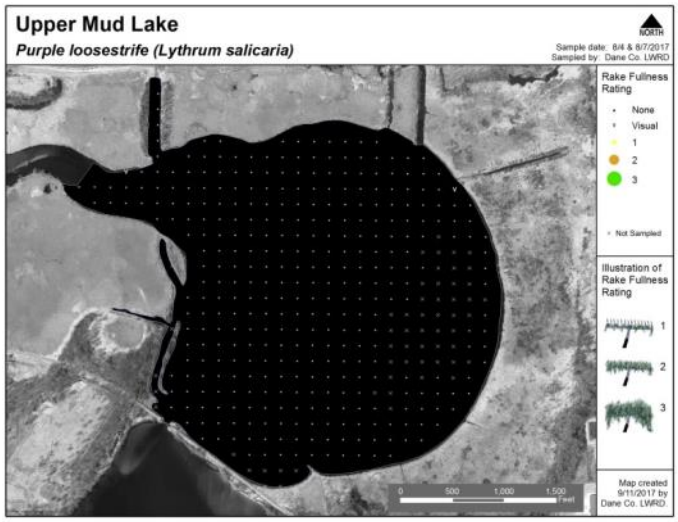

Upper Mud Lake
Flat-stem pondweed (Potamogeton zosteriformis)
Sample date: 8/4 & 8/7/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
Illustration of Rake Fullness Rating
1
2
3
0 500 1,000 1,500 Feet
Map created 9/11/2017 by Dane Co. LWRD

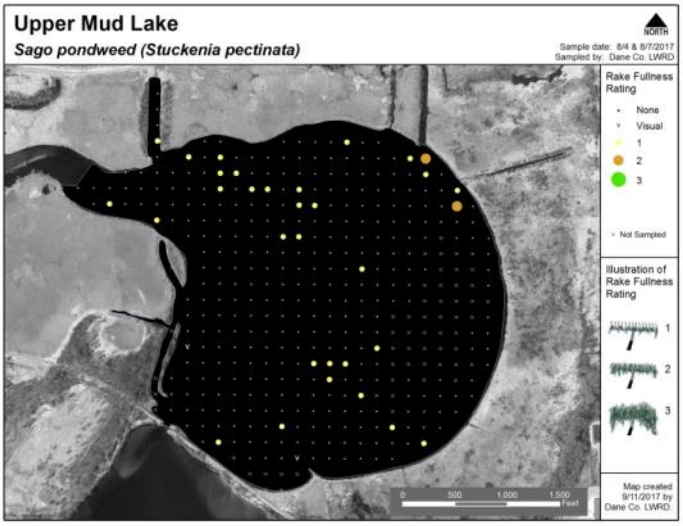

Upper Mud Lake
Forked duckweed (Lemna trisulca)
Sample date: 8/4 & 8/7/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
Illustration of Rake Fullness Rating
1
2
3
0 500 1,000 1,500 Feet
Map created 9/11/2017 by Dane Co. LWRD

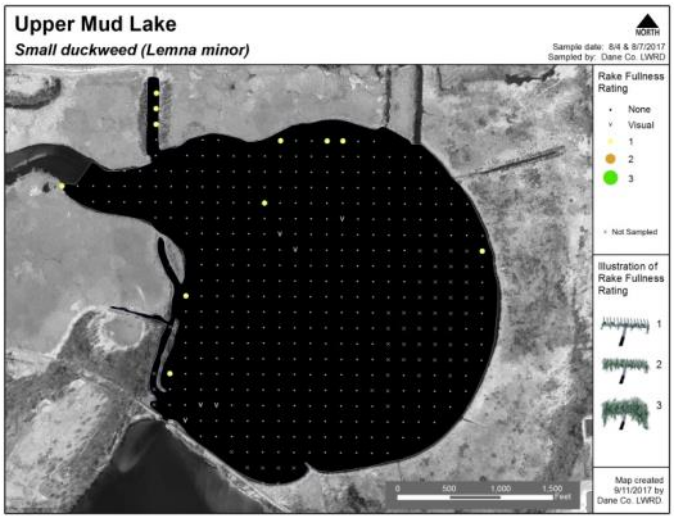

Upper Mud Lake
Leafy pondweed (Potamogeton foliosus)
Sample date: 8/4 & 8/7/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
Illustration of Rake Fullness Rating
1
2
3
0 500 1,000 1,500 Feet
Map created 9/11/2017 by Dane Co. LWRD

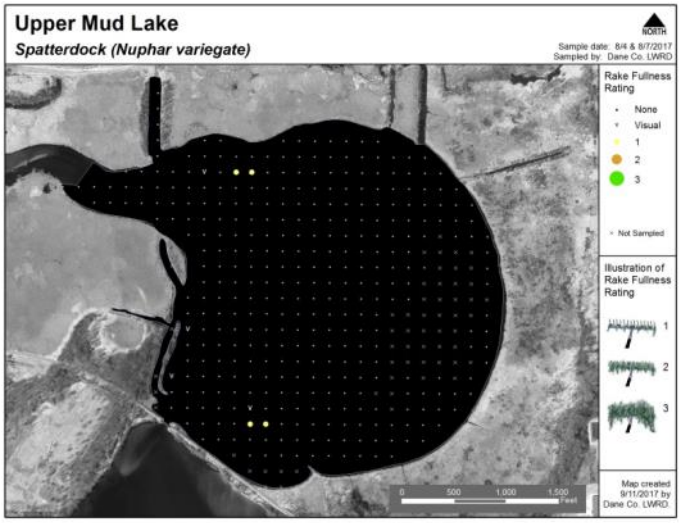

Upper Mud Lake
Large duckweed (Spirodela polyrhiza)
Sample date: 8/4 & 8/7/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
Illustration of Rake Fullness Rating
1
2
3
0 500 1,000 1,500 Feet
Map created 9/11/2017 by Dane Co. LWRD

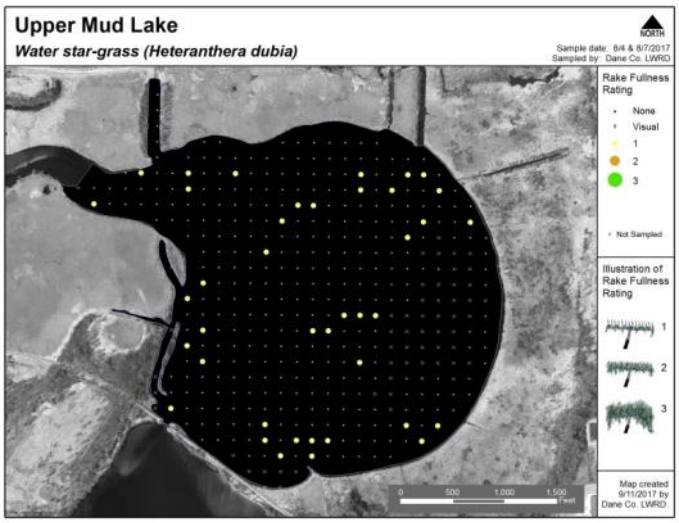

Upper Mud Lake
Muskgrasses (Chara sp.)
Sample date: 8/4 & 8/7/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
Illustration of Rake Fullness Rating
1
2
3
0 500 1,000 1,500 Feet
Map created 9/11/2017 by Dane Co. LWRD

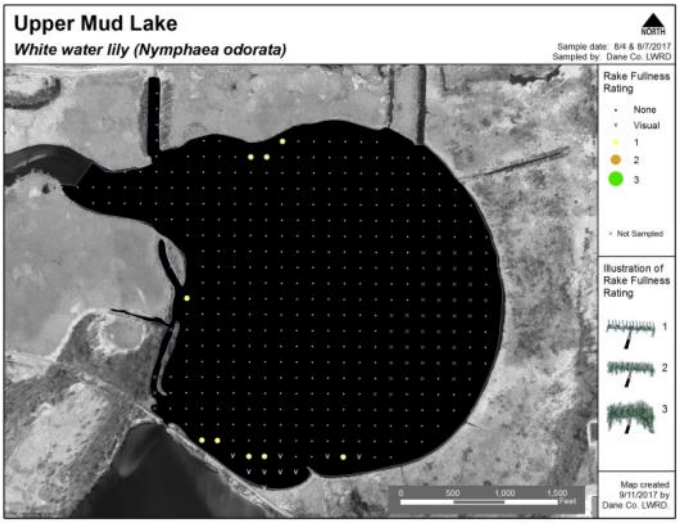

Upper Mud Lake
Purple loosestrife (Lythrum salicaria)
Sample date: 8/4 & 8/7/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
Illustration of Rake Fullness Rating
1
2
3
0 500 1,000 1,500 Feet
Map created 9/11/2017 by Dane Co. LWRD

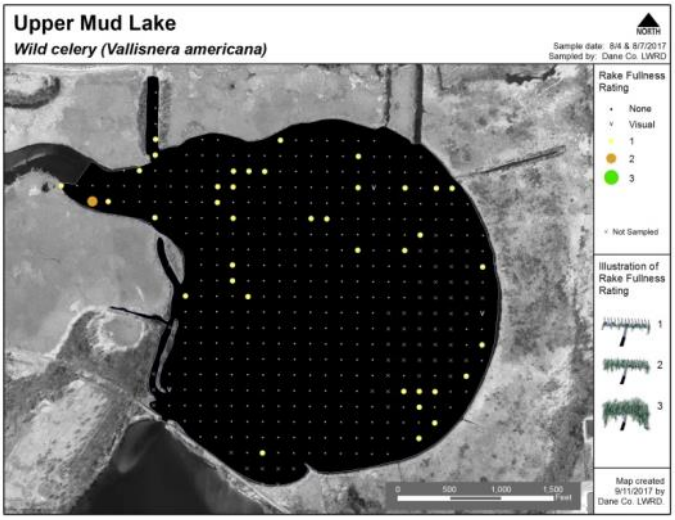

Upper Mud Lake
Sago pondweed (Stuckenia pectinata)
Sample date: 8/4 & 8/7/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
Illustration of Rake Fullness Rating
1
2
3
0 500 1,000 1,500 Feet
Map created 9/11/2017 by Dane Co. LWRD


Upper Mud Lake
Small duckweed (Lemna minor)
Sample date: 8/4 & 8/7/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
Illustration of Rake Fullness Rating
1
2
3
0 500 1,000 1,500 Feet
Map created 9/11/2017 by Dane Co. LWRD


Upper Mud Lake
Spatterdock (Nuphar variegate)
Sample date: 8/4 & 8/7/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
Illustration of Rake Fullness Rating
1
2
3
0 500 1,000 1,500 Feet
Map created 9/11/2017 by Dane Co. LWRD

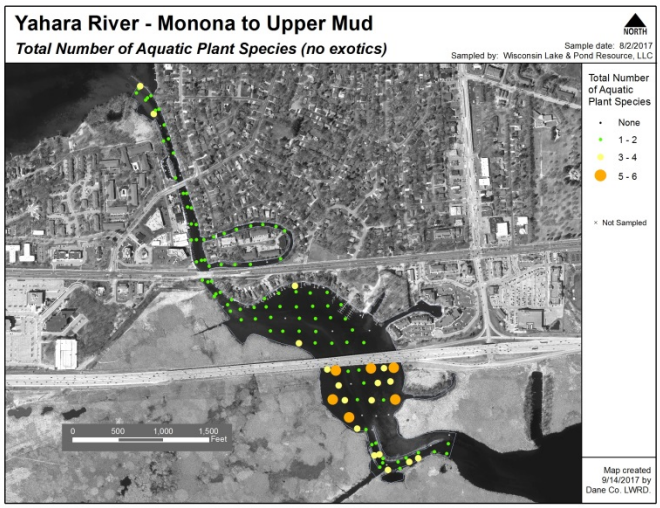

Upper Mud Lake
Water star-grass (Heteranthera dubia)
Sample date: 8/4 & 8/7/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
Illustration of Rake Fullness Rating
1
2
3
0 500 1,000 1,500 Feet
Map created 9/11/2017 by Dane Co. LWRD

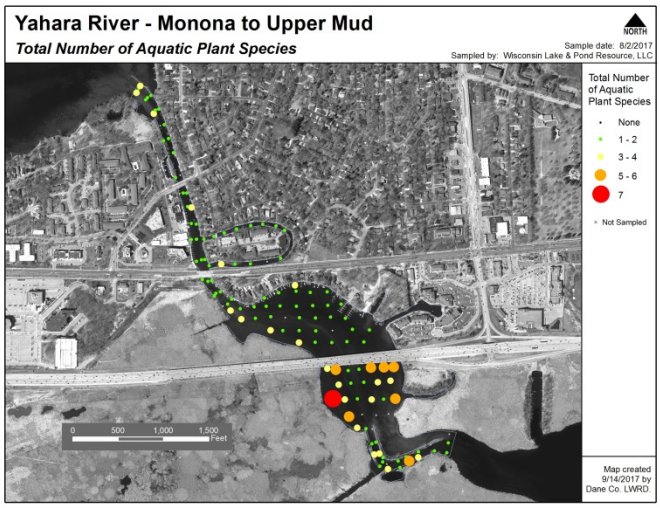

Upper Mud Lake
White water lily (Nymphaea odorata)
Sample date: 8/4 & 8/7/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
Illustration of Rake Fullness Rating
1
2
3
0 500 1,000 1,500 Feet
Map created 9/11/2017 by Dane Co. LWRD

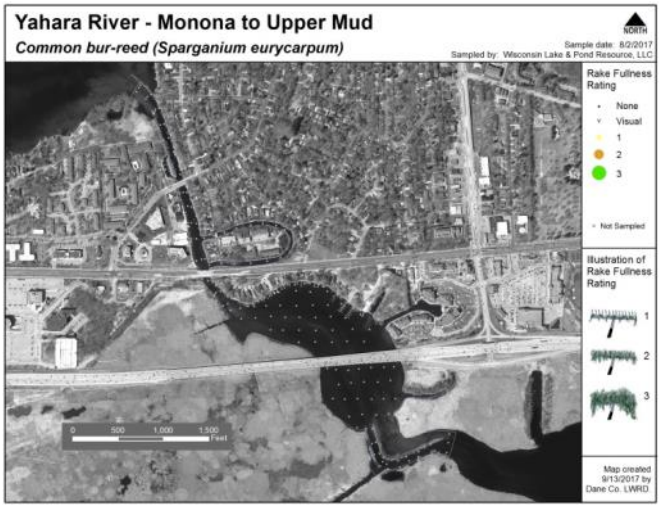

Upper Mud Lake
Wild celery (Vallisnera americana)
Sample date: 8/4 & 8/7/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
Illustration of Rake Fullness Rating
1
2
3
0 500 1,000 1,500 Feet
Map created 9/11/2017 by Dane Co. LWRD

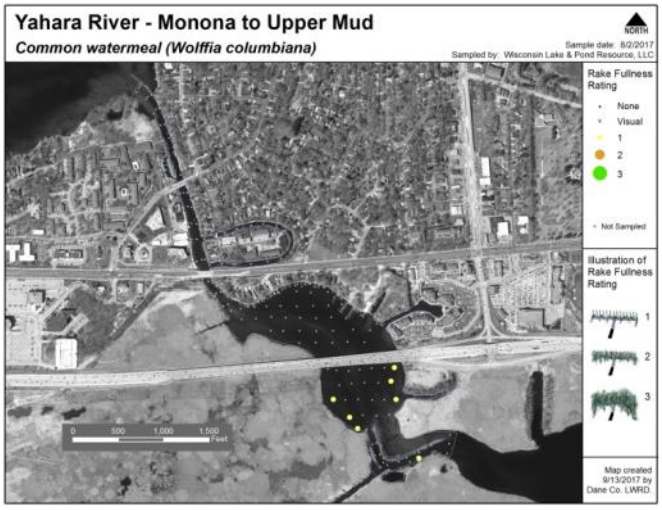
Appendix E – Mapped Plant Distributions for Each Yahara River Section

Section 1: Monona to Upper Mud

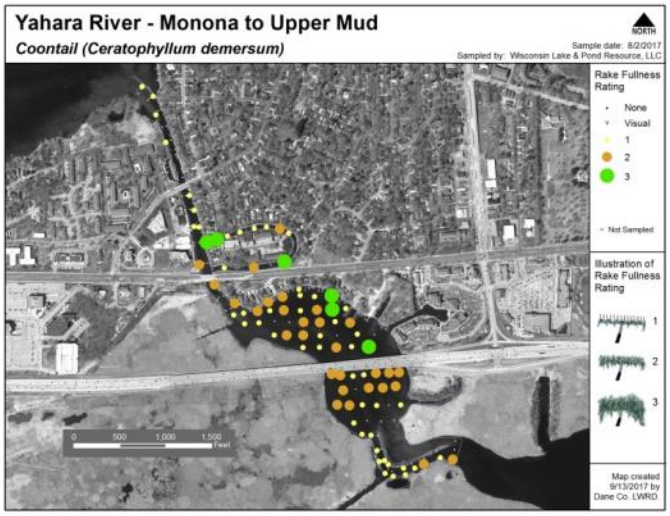


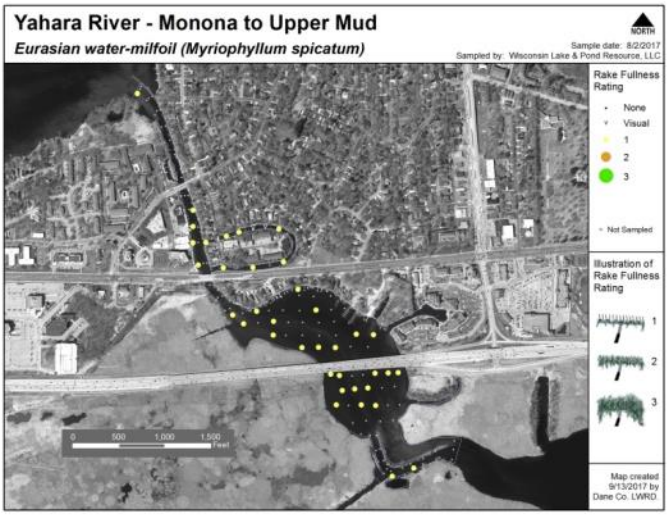


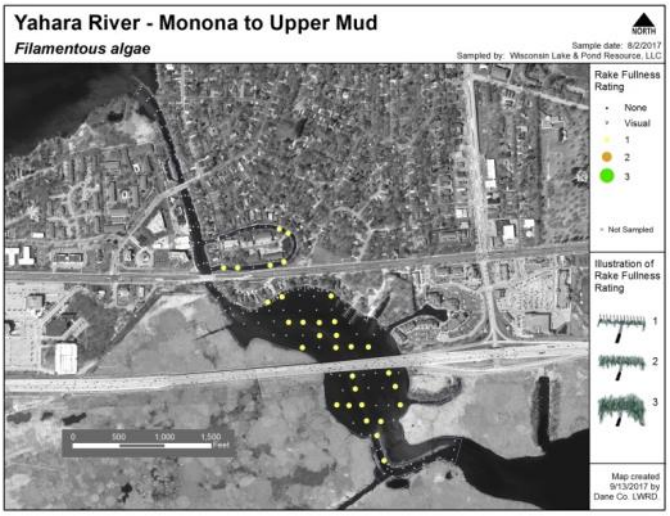



Yahara River - Monona to Upper Mud
Common watermeal (Wolffia columbiana)
Sample date: 8/2/2017
Sampled by: Wisconsin Lake & Pond Resource, LLC
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
Illustration of Rake Fullness Rating
1
2
3
0 500 1,000 1,500 Feet
Map created 9/13/2017 by Dane Co. LWRD.

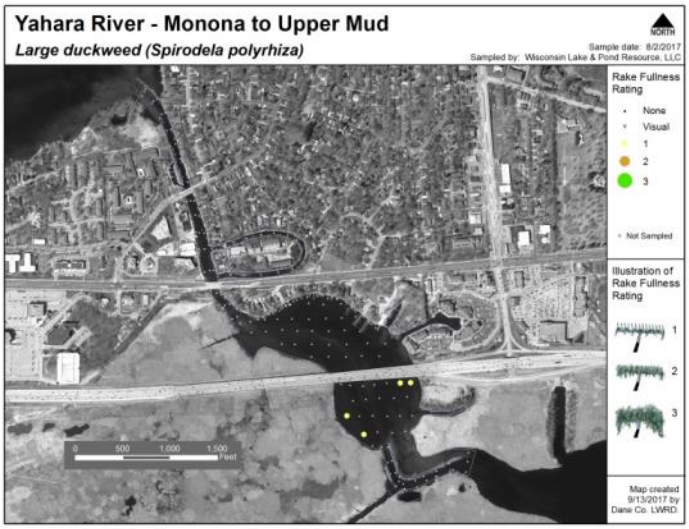

Yahara River - Monona to Upper Mud
Common waterweed (Elodea canadensis)
Sample date: 8/2/2017
Sampled by: Wisconsin Lake & Pond Resource, LLC
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
Illustration of Rake Fullness Rating
1
2
3
0 500 1,000 1,500 Feet
Map created 9/13/2017 by Dane Co. LWRD.


Yahara River - Monona to Upper Mud
Coontail (Ceratophyllum demersum)
Sample date: 8/2/2017
Sampled by: Wisconsin Lake & Pond Resource, LLC
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
Illustration of Rake Fullness Rating
1
2
3
0 500 1,000 1,500 Feet
Map created 9/13/2017 by Dane Co. LWRD.


Yahara River - Monona to Upper Mud
Eurasian water-milfoil (Myriophyllum spicatum)
Sample date: 8/2/2017
Sampled by: Wisconsin Lake & Pond Resource, LLC
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
Illustration of Rake Fullness Rating
1
2
3
0 500 1,000 1,500 Feet
Map created 9/13/2017 by Dane Co. LWRD.

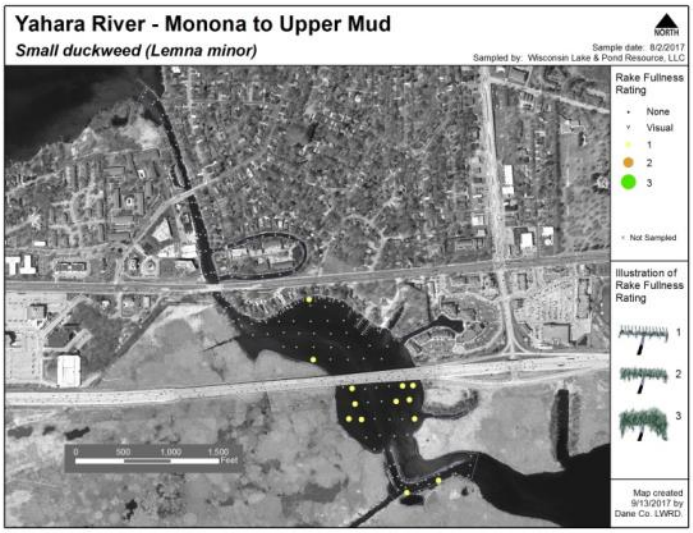

Yahara River - Monona to Upper Mud
Filamentous algae
Sample date: 8/2/2017
Sampled by: Wisconsin Lake & Pond Resource, LLC
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
Illustration of Rake Fullness Rating
1
2
3
0 500 1,000 1,500 Feet
Map created 9/13/2017 by Dane Co. LWRD.

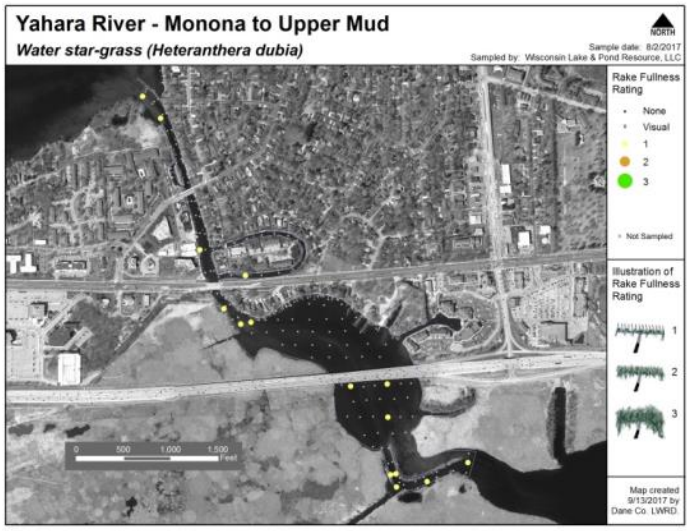

Yahara River - Monona to Upper Mud
Flat-stem pondweed (Potamogeton zosteriformis)
Sample date: 8/2/2017
Sampled by: Wisconsin Lake & Pond Resource, LLC
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
Illustration of Rake Fullness Rating
1
2
3
0 500 1,000 1,500 Feet
Map created 9/13/2017 by Dane Co. LWRD.


Yahara River - Monona to Upper Mud
Large duckweed (Spirodela polyrhiza)
Sample date: 8/2/2017
Sampled by: Wisconsin Lake & Pond Resource, LLC
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
Illustration of Rake Fullness Rating
1
2
3
0 500 1,000 1,500 Feet
Map created 9/13/2017 by Dane Co. LWRD.

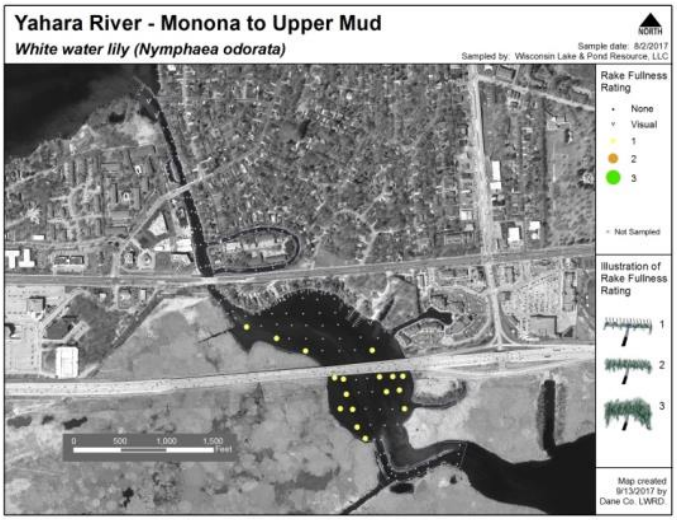

Yahara River - Monona to Upper Mud
Muskgrasses (Chara sp.)
Sample date: 8/2/2017
Sampled by: Wisconsin Lake & Pond Resource, LLC
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
Illustration of Rake Fullness Rating
1
2
3
0 500 1,000 1,500 Feet
Map created 9/13/2017 by Dane Co. LWRD.


Yahara River - Monona to Upper Mud
Sago pondweed (Stuckenia pectinata)
Sample date: 8/2/2017
Sampled by: Wisconsin Lake & Pond Resource, LLC
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
Illustration of Rake Fullness Rating
1
2
3
0 500 1,000 1,500 Feet
Map created 9/13/2017 by Dane Co. LWRD.

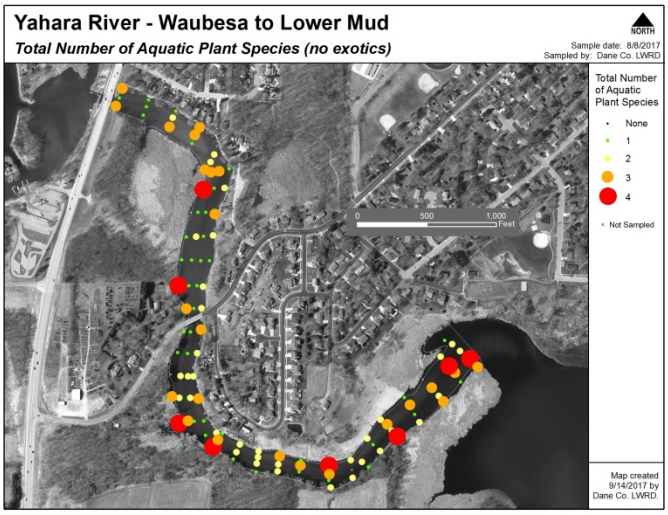

Yahara River - Monona to Upper Mud
Small duckweed (Lemna minor)
Sample date: 8/2/2017
Sampled by: Wisconsin Lake & Pond Resource, LLC
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
Illustration of Rake Fullness Rating
1
2
3
0 500 1,000 1,500 Feet
Map created 9/13/2017 by Dane Co. LWRD.

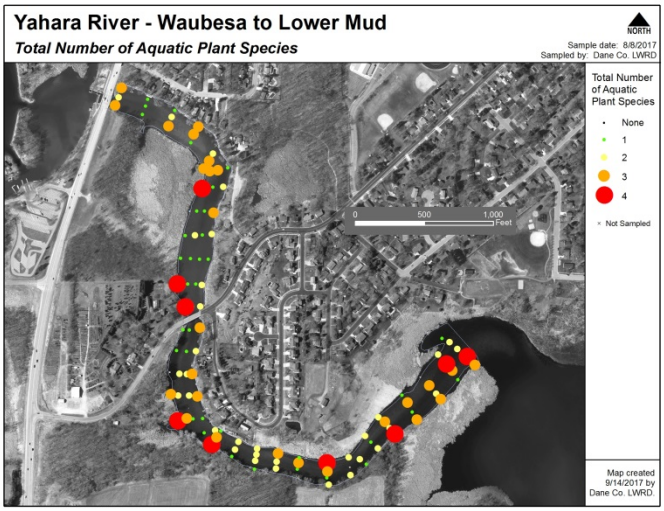

Yahara River - Monona to Upper Mud
Water star-grass (Heteranthera dubia)
Sample date: 8/2/2017
Sampled by: Wisconsin Lake & Pond Resource, LLC
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
Illustration of Rake Fullness Rating
1
2
3
0 500 1,000 1,500 Feet
Map created 9/13/2017 by Dane Co. LWRD.


Yahara River - Monona to Upper Mud
White water crowfoot (Ranunculus aquatilis)
Sample date: 8/2/2017
Sampled by: Wisconsin Lake & Pond Resource, LLC
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
Illustration of Rake Fullness Rating
1
2
3
0 500 1,000 1,500 Feet
Map created 9/13/2017 by Dane Co. LWRD.



Section 2: Waubesa to Lower Mud






Yahara River - Waubesa to Lower Mud
Cattail (Typha sp.)
Sample date: 8/8/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
0 500 1,000 Feet
Illustration of Rake Fullness Rating
1
2
3
Map created 9/13/2017 by Dane Co. LWRD.

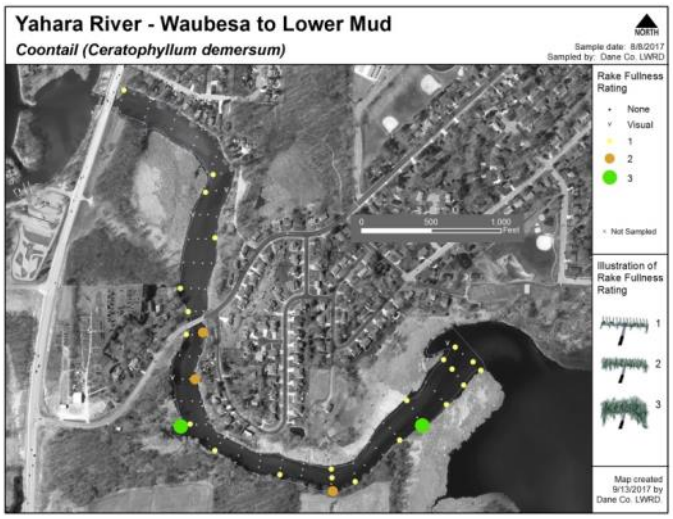

Yahara River - Waubesa to Lower Mud
Clasping-leaf pondweed (Potamogeton richardsonii)
Sample date: 8/8/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
0 500 1,000 Feet
Illustration of Rake Fullness Rating
1
2
3
Map created 9/13/2017 by Dane Co. LWRD.


Yahara River - Waubesa to Lower Mud
Curly-leaf pondweed (Potamogeton crispus)
Sample date: 8/8/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
0 500 1,000 Feet
Illustration of Rake Fullness Rating
1
2
3
Map created 9/13/2017 by Dane Co. LWRD.


Yahara River - Waubesa to Lower Mud
Common reed (Phragmites australis)
Sample date: 8/8/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
0 500 1,000 Feet
Illustration of Rake Fullness Rating
1
2
3
Map created 9/13/2017 by Dane Co. LWRD.


Yahara River - Waubesa to Lower Mud
Common watermeal (Wolffia columbiana)
Sample date: 8/8/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
0 500 1,000 Feet
Illustration of Rake Fullness Rating
1
2
3
Map created 9/13/2017 by Dane Co. LWRD.


Yahara River - Waubesa to Lower Mud
Common waterweed (Elodea canadensis)
Sample date: 8/8/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
0 500 1,000 Feet
Illustration of Rake Fullness Rating
1
2
3
Map created 9/13/2017 by Dane Co. LWRD.

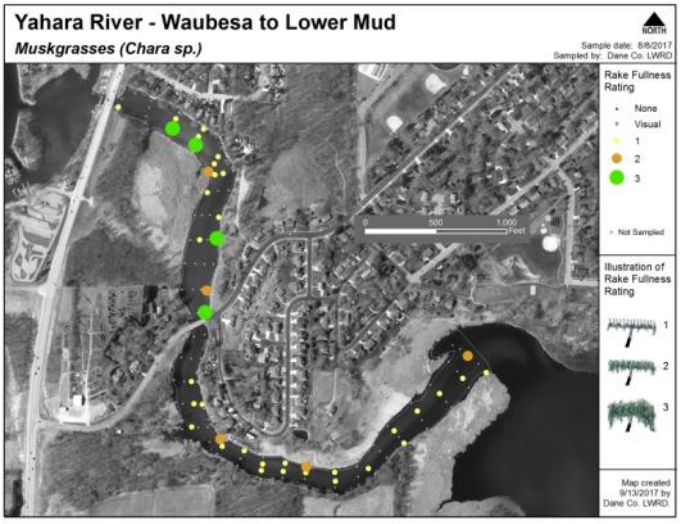

Yahara River - Waubesa to Lower Mud
Coontail (Ceratophyllum demersum)
Sample date: 8/8/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
0 500 1,000 Feet
Illustration of Rake Fullness Rating
1
2
3
Map created 9/13/2017 by Dane Co. LWRD.


Yahara River - Waubesa to Lower Mud
Eurasian water-milfoil (Myriophyllum spicatum)
Sample date: 8/8/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
0 500 1,000 Feet
Illustration of Rake Fullness Rating
1
2
3
Map created 9/13/2017 by Dane Co. LWRD.


Yahara River - Waubesa to Lower Mud
Filamentous algae
Sample date: 8/8/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
0 500 1,000 Feet
Illustration of Rake Fullness Rating
1
2
3
Map created 9/13/2017 by Dane Co. LWRD.

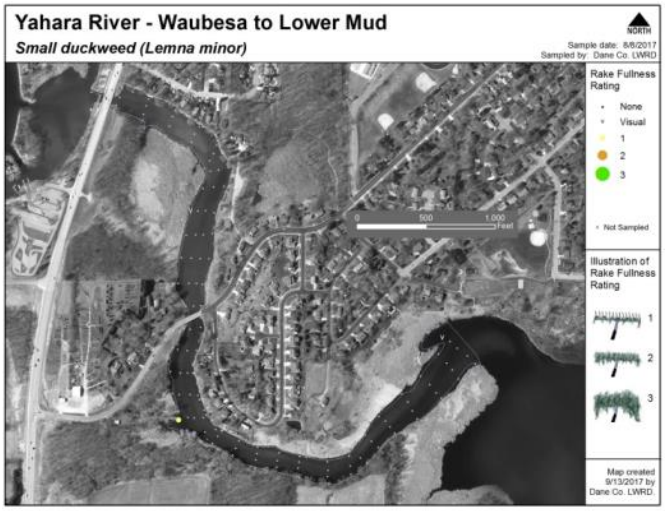

Yahara River - Waubesa to Lower Mud
Leafy pondweed (Potamogeton foliosus)
Sample date: 8/8/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
0 500 1,000 Feet
Illustration of Rake Fullness Rating
1
2
3
Map created 9/13/2017 by Dane Co. LWRD.


Yahara River - Waubesa to Lower Mud
Large duckweed (Spirodela polyrhiza)
Sample date: 8/8/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
0 500 1,000 Feet
Illustration of Rake Fullness Rating
1
2
3
Map created 9/13/2017 by Dane Co. LWRD.


Yahara River - Waubesa to Lower Mud
Muskgrasses (Chara sp.)
Sample date: 8/8/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
0 500 1,000 Feet
Illustration of Rake Fullness Rating
1
2
3
Map created 9/13/2017 by Dane Co. LWRD.


Yahara River - Waubesa to Lower Mud
Purple loosestrife (Lythrum salicaria)
Sample date: 8/8/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
0
500
1,000
Feet
Illustration of Rake Fullness Rating
1
2
3
Map created 9/13/2017 by Dane Co. LWRD.


Yahara River - Waubesa to Lower Mud
Reed canary grass (Phalaris arundinacea)
Sample date: 8/8/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
0
500
1,000
Feet
Illustration of Rake Fullness Rating
1
2
3
Map created 9/13/2017 by Dane Co. LWRD.

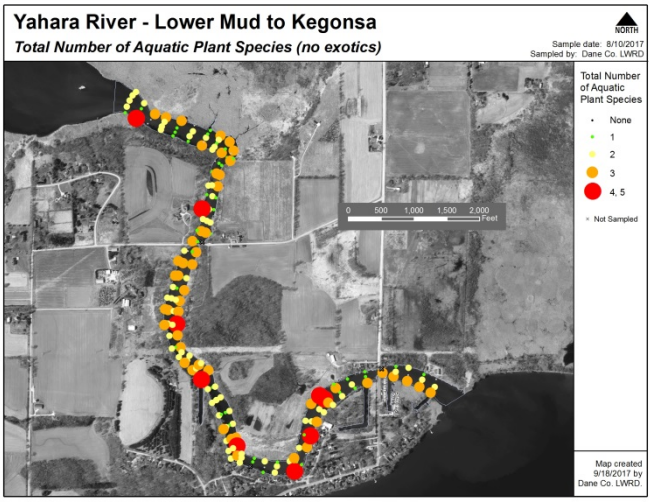

Yahara River - Waubesa to Lower Mud
Small duckweed (Lemna minor)
Sample date: 8/8/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
0
500
1,000
Feet
Illustration of Rake Fullness Rating
1
2
3
Map created 9/13/2017 by Dane Co. LWRD.

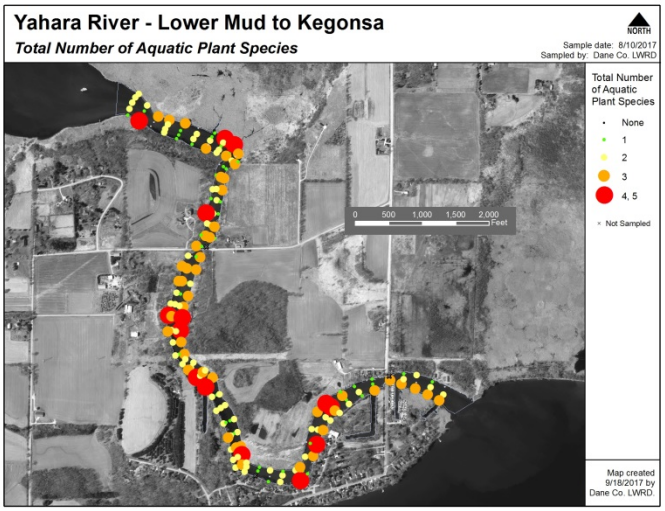

Yahara River - Waubesa to Lower Mud
Water smartweed (Polygonum amphibium)
Sample date: 8/8/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
0
500
1,000
Feet
Illustration of Rake Fullness Rating
1
2
3
Map created 9/13/2017 by Dane Co. LWRD.

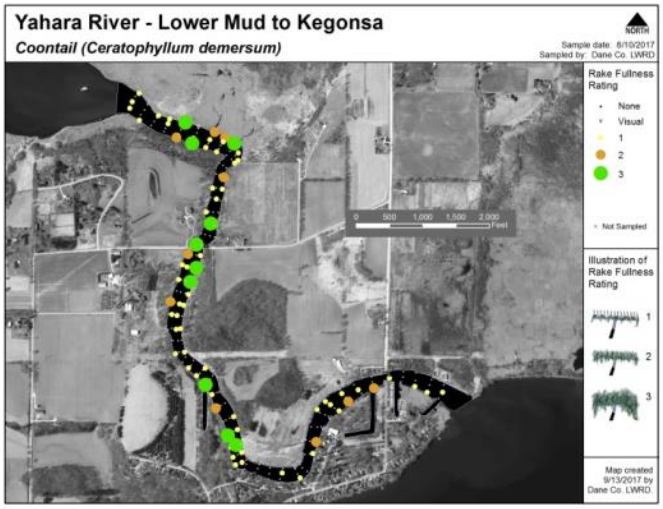

Yahara River - Waubesa to Lower Mud
Water star-grass (Heteranthera dubia)
Sample date: 8/8/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
0
500
1,000
Feet
Illustration of Rake Fullness Rating
1
2
3
Map created 9/13/2017 by Dane Co. LWRD.


Yahara River - Waubesa to Lower Mud
Wild celery (Vallisnera americana)
Sample date: 8/8/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
0
500
1,000
Feet
Illustration of Rake Fullness Rating
1
2
3
Map created 9/13/2017 by Dane Co. LWRD.

Section 3: Lower Mud to Kegonsa







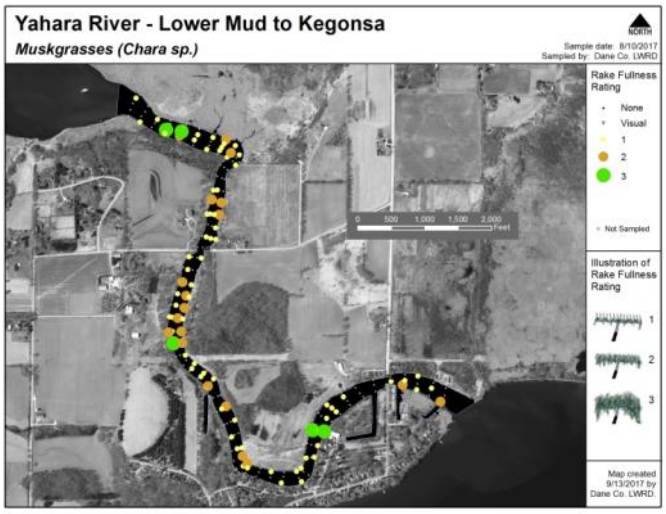

Yahara River - Lower Mud to Kegonsa
Eurasian water-milfoil (Myriophyllum spicatum)
Sample date: 8/10/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
0 500 1,000 1,500 2,000 Feet
Illustration of Rake Fullness Rating
1
2
3
Map created 9/13/2017 by Dane Co. LWRD.


Yahara River - Lower Mud to Kegonsa
Filamentous algae
Sample date: 8/10/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
0 500 1,000 1,500 2,000 Feet
Illustration of Rake Fullness Rating
1
2
3
Map created 9/13/2017 by Dane Co. LWRD.


Yahara River - Lower Mud to Kegonsa
Flat-stem pondweed (Potamogeton zosteriformis)
Sample date: 8/10/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
0 500 1,000 1,500 2,000 Feet
Illustration of Rake Fullness Rating
1
2
3
Map created 9/13/2017 by Dane Co. LWRD.


Yahara River - Lower Mud to Kegonsa
Hardstem bulrush (Schoenoplectus acutus)
Sample date: 8/10/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
0 500 1,000 1,500 2,000 Feet
Illustration of Rake Fullness Rating
1
2
3
Map created 9/13/2017 by Dane Co. LWRD.

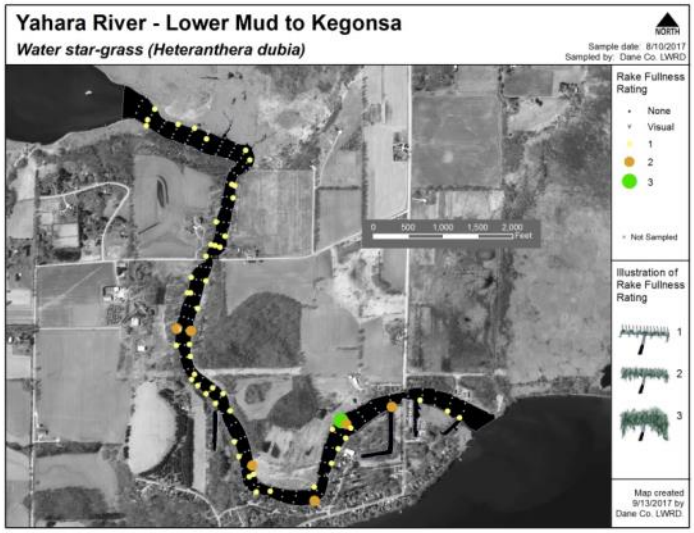

Yahara River - Lower Mud to Kegonsa
Large duckweed (Spirodela polyrhiza)
Sample date: 8/10/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
0 500 1,000 1,500 2,000 Feet
Illustration of Rake Fullness Rating
1
2
3
Map created 9/13/2017 by Dane Co. LWRD.


Yahara River - Lower Mud to Kegonsa
Muskgrasses (Chara sp.)
Sample date: 8/10/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
0 500 1,000 1,500 2,000 Feet
Illustration of Rake Fullness Rating
1
2
3
Map created 9/13/2017 by Dane Co. LWRD.

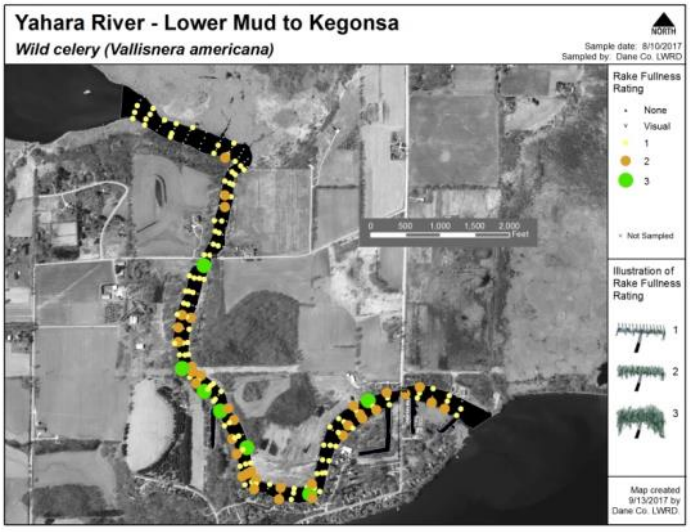

Yahara River - Lower Mud to Kegonsa
Sago pondweed (Stuckenia pectinata)
Sample date: 8/10/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
0 500 1,000 1,500 2,000 Feet
Illustration of Rake Fullness Rating
1
2
3
Map created 9/13/2017 by Dane Co. LWRD.


Yahara River - Lower Mud to Kegonsa
Small duckweed (Lemna minor)
Sample date: 8/10/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
0 500 1,000 1,500 2,000 Feet
Illustration of Rake Fullness Rating
1
2
3
Map created 9/13/2017 by Dane Co. LWRD.


Yahara River - Lower Mud to Kegonsa
Water smartweed (Polygonum amphibium)
Sample date: 8/10/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
0 500 1,000 1,500 2,000 Feet
Illustration of Rake Fullness Rating
1
2
3
Map created 9/13/2017 by Dane Co. LWRD.


Yahara River - Lower Mud to Kegonsa
Water star-grass (Heteranthera dubia)
Sample date: 8/10/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
0 500 1,000 1,500 2,000 Feet
Illustration of Rake Fullness Rating
1
2
3
Map created 9/13/2017 by Dane Co. LWRD.


Yahara River - Lower Mud to Kegonsa
White water lily (Nymphaea odorata)
Sample date: 8/10/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
0 500 1,000 1,500 2,000 Feet
Illustration of Rake Fullness Rating
1
2
3
Map created 9/13/2017 by Dane Co. LWRD.


Yahara River - Lower Mud to Kegonsa
Wild celery (Vallisnera americana)
Sample date: 8/10/2017
Sampled by: Dane Co. LWRD
NORTH
Rake Fullness Rating
None
Visual
1
2
3
Not Sampled
0 500 1,000 1,500 2,000 Feet
Illustration of Rake Fullness Rating
1
2
3
Map created 9/13/2017 by Dane Co. LWRD.