

## APPENDIX A – LAKE WAUBESA PLANT STATISTICS 2011

**Table 1: 2011 Aquatic Plant Community Statistics, Lake Waubesa, Dane County, WI**

<b>Aquatic Plant Community Statistics</b>	<b>2011</b>
Number of sites sampled	987
Number of sites with vegetation	223
Number of sites shallower than maximum depth of plants	353
Frequency of occurrence at sites shallower than maximum depth of plants	63.17%
Simpson Diversity Index	0.86
Maximum Depth of Plants (Feet)	7
Taxonomic Richness (Number Taxa)	14
Average Number of Species per Site (less than max depth of plant growth)	1.41
Average Number of Species per Site (sites with vegetation)	2.24
Average Number of Native Species per Site (less than max depth of plant growth)	1.08
Average Number of Native Species per Site (sites with vegetation)	1.87

**Table 2: 2011 Aquatic Plant Taxa-Specific Statistics, Lake Waubesa, Dane County, WI**

<b>Species</b>	<b>Frequency of Occurrence within vegetated areas</b>	<b>Frequency of Occurrence at Site Shallower Than Max Depth of Plants</b>	<b>Percent Relative Frequency of Occurrence</b>	<b>Number of Intercept Points Where Detected</b>	<b>Average Density</b>
Filamentous algae	1.35	0.85	0.60	3	1.00
River bulrush	0.45	0.28	0.20	1	1.00
Coontail	60.99	38.53	27.25	136	1.25
Muskgrass	1.35	0.85	0.60	3	1.00
Common waterweed	9.42	5.95	4.21	21	1.00
Water star-grass	11.66	7.37	5.21	26	1.00
Small duckweed	4.48	2.83	2.00	10	1.00
Eurasian watermilfoil	47.09	29.75	21.04	105	1.05
Curly-leaf pondweed	4.93	3.12	2.20	11	1.00
Clasping-leaf pondweed	1.35	0.85	0.60	3	1.00
Flat-stem pondweed	37.22	23.51	16.63	83	1.00
Large duckweed	4.04	2.55	1.80	9	1.00
Wild celery	2.24	1.42	1.00	5	1.00
Horned pondweed	37.22	23.51	16.63	83	1.00

**Table 3: Historical and 2011 Floristic Quality Index, Lake Waubesa, Dane County, WI**

Genus	Species	Common Name	Coefficient of Conservatism	
			2006	2011
<i>Bolboschoenus</i>	<i>fluviatilis</i>	River bulrush	---	6
<i>Ceratophyllum</i>	<i>demersum</i>	Coontail	3	3
<i>Chara</i>	<i>sp.</i>	Muskgrass	---	7
<i>Elodea</i>	<i>canadensis</i>	Common waterweed	3	3
<i>Heteranthera</i>	<i>dubia</i>	Water star-grass	6	6
<i>Lemna</i>	<i>minor</i>	Small duckweed	4	4
<i>Myriophyllum</i>	<i>sibiricum</i>	Northern watermilfoil	6	---
<i>Potamogeton</i>	<i>foliosus</i>	Leafy pondweed	6	---
<i>Potamogeton</i>	<i>richardsonii</i>	Clasping-leaf pondweed	5	5
<i>Potamogeton</i>	<i>zosteriformis</i>	Flat-stem pondweed	6	6
<i>Spirodela</i>	<i>polyrhiza</i>	Large duckweed	5	5
<i>Stuckenia</i>	<i>pectinata</i>	Sago pondweed	3	---
<i>Typha</i>	<i>angustifolia</i>	Narrow-leaved cattail	1	---
<i>Vallisneria</i>	<i>americana</i>	Wild celery	6	6
<i>Zannichellia</i>	<i>palustris</i>	Horned pondweed	7	7
Total Species			13	11
Mean C			4.69	5.27
<b>Floristic Quality Index (FQI)</b>			<b>16.92</b>	<b>17.49</b>

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.
- 9-10 taxa restricted to a narrow range of synecological conditions, with low tolerance of disturbance.

**Table 4: Historical Aquatic Plant Community Statistics, Lake Waubesa, Dane County, Wisconsin.**

	<b>2006</b>	<b>2011</b>
<b>F.o.o. at sites shallower than maximum depth of plants</b>	52.61	63.17
<b>Most Dominant Species*</b>	Coontail Small Duckweed Filamentous Algae Leafy Pondweed Eurasian Watermilfoil	Coontail Eurasian Watermilfoil Flat-stem Pondweed Horned Pondweed Water Star-grass
<b>Maximum Depth of Plants</b>	14	11
<b>Species Richness</b>	14	14
<b>Community FQI</b>	16.92	17.49
<b>Average Coefficient of Conservatism</b>	4.69	5.27
* - Based on number of sample points collected at. Visual observations are included.		

**Table 5: Historical Aquatic Plant Occurrences, Lake Waubesa, Dane County, Wisconsin.**

<b>Genus</b>	<b>Species</b>	<b>Common Name</b>	<b>% Relative F.o.o.</b>	
			2006	2011
<i>Algae</i>	<i>sp.</i>	Filamentous algae	27.5	0.6
<i>Bolboschoenus</i>	<i>fluviatilis</i>	River bulrush	---	0.2
<i>Ceratophyllum</i>	<i>demersum</i>	Coontail	32.9	27.3
<i>Chara</i>	<i>sp.</i>	Muskgrass	---	0.6
<i>Elodea</i>	<i>canadensis</i>	Common waterweed	0.9	4.2
<i>Heteranthera</i>	<i>dubia</i>	Water star-grass	2.6	5.2
<i>Lemna</i>	<i>minor</i>	Small duckweed	0*	2.0
<i>Myriophyllum</i>	<i>sibiricum</i>	Northern watermilfoil	4.3	---
<i>Myriophyllum</i>	<i>spicatum</i>	Eurasian watermilfoil	10.0	21.0
<i>Potamogeton</i>	<i>crispus</i>	Curly-leaf pondweed	1.5	2.2
<i>Potamogeton</i>	<i>foliosus</i>	Leafy pondweed	11.3	---
<i>Potamogeton</i>	<i>richardsonii</i>	Clasping-leaf pondweed	1.1	0.6
<i>Potamogeton</i>	<i>zosteriformis</i>	Flat-stem pondweed	3.7	16.6
<i>Spirodela</i>	<i>polyrhiza</i>	Large duckweed	0.2	1.8
<i>Stuckenia</i>	<i>pectinata</i>	Sago pondweed	2.4	---
<i>Typha</i>	<i>angustifolia</i>	Narrow-leaved cattail	0*	---
<i>Vallisneria</i>	<i>americana</i>	Wild celery	0.2	1.0
<i>Zannichellia</i>	<i>palustris</i>	Horned pondweed	1.5	16.6

0\* - Species was sampled visually only, statistical data was not produced.



# APPENDIX B – AQUATIC PLANT DISTRIBUTIONS LAKE WAUBESA (2011)







