WILD RICE WETLAND INVENTORY OF NORTHWEST WISCONSIN

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TABLE OF CONTENTS

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Abstract: A wild rice inventory of northwestern Wisconsin was conducted during summer 1985 to collect necessary information for development of a wild rice management program in northern Wisconsin. A wild rice suitability index was developed and after further refinement will be used to monitor wild rice habitat quality and assess potential reintroduction sites. Biological, chemical, and physical factors were recorded, and detailed maps were prepared. Sixty two lakes, 11 rivers and 8 flowages supported 767 ha (1896 acres) of wild rice in northwestern Wisconsin. Total wild rice acerage for the northern one-third of Wisconsin was estimated at 2.000 ha or 5,000 acres and was associated with favorable spring water levels in 1985. Perennial aquatic vegetation, crayfish, and beaver were found to negatively impact wild rice beds in northwest Wisconsin. Purple loosestrife was commonly found and is considered a threat to wild rice wetlands in northern Wisconsin.

INTRODUCTION

Wild rice (Zizania aquatica) abundance and distribution in Wisconsin has been drastically reduced since the early nineteenth century (Taube 1951, Stoddard 1957, Fannucchi et al. in press). Wild rice, once abundant throughout the state, in now classified as a scarce resource, Wis. Admin. Code sec. NR 1.95 (4), as much wild rice has been eliminiated by altering river courses, constructing dams and flowages, shoreline development, wetland drainage, dredging, pollution, vegetation competition, high beaver (Castor canadensis) populations and carp (Carpinus carpia). This decline is cause for alarm in light of wild rice's important ecological, economic, cultural, and aesthetic values. Consequently, the Great Lakes Indian Fish and Wildlife Commission (GLIFWC) and Wisconsin Department of Natural Resources (WDNR) in 1985 established a joint working group to develop a wild rice protection and enhancement program in northern Wisconsin.

The first task of the GLIFWC - WDNR wild rice technical working group was to inventory existing and potential wild rice sites. Consequently, GLIFWC hired a student intern and 2 aides to survey the WDNR Northwest Wisconsin District and WDNR hired a student intern to survey the WDNR North Central district during summer of 1985. This report presents preliminary results of GLIFWC's wild rice survey of northwest Wisconsin. Detailed analysis of the data collected will be conducted once all the data has been entered into computer files to facilitate comprehensive statistical analysis.

METHODS

A mail survey of tribal conservation departments, WDNR wildlife managers, biologists, wardens, U.S. Forest Service, county conservation departments, and other researchers on current, past, and potential wild rice sites was conducted prior to field work. Meetings with wild ricers were held at the Lac Courte Oreilles, Lac du Flambeau, St. Croix, and Mole Lake Indian Reservations to supplement the mail survey data and develop a list of survey sites.

A 17 foot canoe and a 14 foot aluminum boat were used to collect biological, chemical, physical, and geographic data at the wild rice survey sites. We developed a survey form to facilitate systematic data collection and to calculate a wild rice suitability index for each site (Appendix B). All factors that we identified as potentially affecting wild rice were assigned numerical values, with the sum of values at a site used as the suitability index. Data recorded included size and density of wild rice beds, vegetative composition, bottom types, pH, conductivity, shoreline and watershed characteristics, and wildlife observations. County surface water resource books, published by WDNR, provided supplemental information such as: size, depth, and dimensions of water body; water control structure(s); freezout occurrence; water source; etc.

WDNR lake survey maps, topographic maps, and aerial photos were used for mapping wild rice beds and surrounding aquatic vegetation. Three wild rice stem density measurements were taken at each site, with a 0.5 meter wood frame, and averaged to estimate stem density for the site. Conductivity and pH were measured from one water sample at each site with Hach mini-meters. For bottom sampling we constructed two 2.5 meter-long core samplers, from 3.8 cm diameter PVC pipe, with 3.7 cm diameter solid plastic tubes as plungers. A 4 cm diameter thin leather strip was attached to the end of the plunger to create a seal and suction for drawing up the bottom sample.

Three bottom samples and 3 water samples were obtained from each of 41 selected wild rice beds and sent to the White Earth Reservation in Minnesota for detailed chemical analysis and development of a model for predicting wild rice stand quality. Samples were collected from wild rice beds as follows: 25 from northwestern Wisconsin, 6 from north central Wisconsin, 8 from the Kakagon sloughs on the Bad River Reservation, and 2 from extraordinary rice beds in Marquette County, southern Wisconsin. This analysis has not yet been conducted and thus is not included in this report.

RESULTS AND DISCUSSION

Wild Rice Acreage

A total of 127 bodies of water (82 of which supported wild rice) and 767 ha (1,896 acres) of wild rice were surveyed (Appendix A, Tables 1, 2, 3). Wild rice beds were present in 62 lakes, 11 rivers, and 8 flowages. A total of 479.1 ha (1,184 acres) of dense wild rice beds, 133.1 ha (329 acres) of medium density wild rice beds, and 154.8 ha (382.5 acres) of sparse density wild rice beds were recorded. There was much variability in the size of rice beds, ranging from 0.04 ha (0.1 acres) to 80.9 ha (200 acres). Size of dense rice beds averaged 11.7 ha (28.8 acres), medium density rice beds averaged 7.8 ha (19.3 acres), and sparse density rice beds averaged 6.2 ha (15.3 acres).

In general, the largest percentage of rice occurred in dense beds, which averaged larger in size than those of medium or sparse density beds. Rice density varies from year to year depending on a variety of environmental factors, the most important being stable spring water levels (Chambliss 1940, Thomas and Stewart 1969). Water levels were considered favorable in spring 1985, and thus it was considered a good year for wild rice in northwestern Wisconsin (Flanagan et al. pers. comm.).

Approximately 951 ha (2,350 acres) of wild rice was surveyed in the WDNR North Central district (Niemann 1986). We estimate that (with the 767 ha surveyed in northwestern Wisconsin, roughly 200 ha on Chippewa Indian Reservations, and assorted unsurveyed rice beds) the northern one-third of Wisconsin supported roughly 2,000 ha or 5,000 acres of natural wild rice stands in 1985. If all this acreage were utilized by hand harvesting (with average hand harvesting yields) it could potentially yield $2,000,000 worth of wild rice annually at the 1985 average Wisconsin price of $6.00/pound of processed rice. Hand harvesting takes only 10 to 20% of rice seeds produced annually by a wild rice bed (Moyle 1944, Lawrence 1951, G. Fannucchi 1983) leaving ample amounts for reseeding and wildlife utilization.

The 2,000 ha estimate of wild rice in northern Wisconsin was associated with the favorable water conditions of spring 1985. When water levels are favorable, Minnesota supports an estimated 12,100 ha (30,000 acres) of wild rice (Libertus 1981) and northwest Ontario supports an estimated 10,700 ha (26,400 acres) (Lee 1976).

Associated Aquatic Plants

Common aquatic emergent plants associated with wild rice were: cattail (Typha latifolia), burreed (Sparganium angustifolium), bulrush (Scirpus spp.), pickerelweed

(Pontederia cordata), and arrowhead (Sagittaria spp.). Common submergent plants associated with wild rice were: coontail (Ceratophyllum demersum), various pondweeds (Potamogaton spp.), elodea (Elodea canadensis), water milfoil (Myriophyllum spp.), and wild celery (Vallisneria americana). Common floating aquatics were; yellow pond lily (Nuphar spp.), white water lily (Nymphaea spp.) water shield (Brasenia schreberi), and duckweed (Lemna spp.).

Generally, as wild rice density decreased the abundance of emergent, submergent, and floating perennial competitors increased. Floating aquatics (especially white water lily and water shield) are of most concern because of their ability to shade out wild rice plants (Kutcha 1984). Purple loosestrife (Lythrum salicaria), also of concern as a potential threat to rice beds (Stuckey 1980), was found in 15 wild rice survey areas. Purple loosestrife, an exotic plant that rapidly outcompetes native aquatic plants (Thompson et al. 1980), is spreading swiftly throughout northern Wisconsin.

Water Chemistry

Average pH values of wild rice beds were: 6.4 (SD = 3.1) for dense beds, 7.5 (SD = 0.9) for medium density beds, and 7.6 (SD = 1.7) for sparse density beds. Average conductivity values of wild rice beds (in umhos/cm) were: 143 (SD = 45) for dense beds, 119 (SD = 44) for medium density beds, and 121 (SD = 46) for sparse density beds.

Generally, pH was lower and conductivity was higher for dense rice beds than for medium or sparse density beds, which is consistent with what was found in north central Wisconsin (Niemann 1986). The average northwestern Wisconsin pH of 6.4 for dense wild rice beds is outside of what has been considered the optimum pH range for wild rice, 7.2 - 8.8 (Moyle 1944, Stoddard 1957), but is consistent with the average pH of 6.0 found in the roughly 3400 acre Nett Lake rice bed (Swan 1983), considered one of the finest beds in Minnesota.

The range of pH and conductivity measurements in northwestern Wisconsin rice beds was great: 6.4 to 10.1 for pH, and 49 to 225 umhos/cm for conductivity. This variability limited analysis. In addition, time permitted only one pH and conductivity measurement at each survey site. Consequently, since pH varies from time of year and local weather conditions, the measurements offer limited insight into the water chemistry of wild rice beds in northwestern Wisconsin.

Wild Rice Suitability Index

The wild rice suitability index varied from 91.6 to

166.0 at sites supporting wild rice, varying at each site depending on wild rice presence, basin depth and contours, shoreline characteristics, bottom types, water quality, water control structures, abundance of aquatic plant competitors, wildlife utilization, and other factors that we measured and assigned points to based on potential impact to rice (wild rice survey form, Appendix B). The index was significantly lower (at the 95% level) at survey sites which did not support wild rice than at sites supporting wild rice.

GLIFWC designed the survey index as a relatively quick way to assess wild rice habitat, to evaluate potential reintroduction sites and monitor rice habitat changes. There was some questionable variability in index values collected between northwest Wisconsin rice surveyors and north central Wisconsin surveyors. However, within a survey crew observations appeared standardized and thus we feel the index can be made workable if all surveyors are adequately trained to standardize their observations.

Associated Fish and Wildlife

Approximately 14% of the wild rice beds on lakes, including some of the largest, appeared to have problems with beaver altering spring water levels. Beaver dams are most damaging during periods of high runoff, when they can rapidly raise water levels, uprooting rice plants which are in the critical floating leaf stage from mid-May to the end of June (Chambliss 1940, Thomas and Stewart 1969).

Crayfish were found on 57% of the survey sites and are suspected to be negatively impacting a large percentage of northwest Wisconsin wild rice beds. Rusty crayfish (Orcotnectes rusticus) are not native to Wisconsin but are currently considered by WDNR to be present in all clear-water, relatively hard-bottom lakes of northern Wisconsin (A. Ensign pers. comm.). Rusty crayfish populations can dramatically reduce abundance of aquatic plants (Magnuson et al. 1975, Lorman 1980) and have eliminated most rooted aquatics in Lake Metonga, Forest Co., WI (Carlson 1979). They are also considered responsible for dramatic declines in aquatic plants in many other northern Wisconsin lakes (Capelli 1982, Lorman 1980). Rusty crayfish can severely impact wild rice in the floating leaf stage (Noetzel 1986) and are a suspected cause for wild rice decline on the Sugarbush Lakes chain of the Lac du Flambeau Indian Reservation, Vilas County, Wisconsin (D. Schwalenberg pers comm).

Muskrat (Ondatra zibethicus) were found to seriously impact sparse rice stands, taking a large percentage of the emerging wild rice stems. Muskrats have been responsible for failure of planted rice beds (Krummes 1940, Dore 1969) and can impair the ability of a rice bed to reseed itself (W.

Fannucchi et al. 1983). Muskrat damage (eliminating seed producing stems) for 3 successive years or more to sparse wild rice beds may greatly reduce or eradicate a rice bed. The University of Minnesota (Agricultural Experiment Station) found that less than 10% of wild rice seeds were still viable after being dormant in the sediment for 3 years, and progressively much less were viable after each additional year of dormancy (Oelke et al. 1983).

Carp (Carpinus carpia) were present in at least 18% of the survey sites as indicated in WDNR County surface water resources publications. Wild rice eradication on Lake Koshkonong in southern Wisconsin has been attributed to the introduction of carp there (Black 1944) and carp have been documented uprooting wild rice within a few days of stocking in a research pond at Madison, Wisconsin (Black 1946). Carp can be especially destructive to wild rice when its in the floating leaf stage in May and June (Rose 1984).

Blackbirds (Agelaius phoeniceus) were found to utilize most of the rice beds surveyed. However, researchers have found that blackbirds feed mostly on the rice worm (Apamea apamiformis) and do not consume enough seeds to impact the yields of handharvesters (J. Stewart unpubl., D. Wilcox pers. comm). Blackbirds may reduce rice seed yields though, if large numbers feed in ripe rice stands prior to harvesting, knocking the rice into the water before handharvesters have the opportunity to harvest it.

RECOMMENDATIONS

Research

The wild rice survey data for northwest Wisconsin needs to be combined with that from northeast Wisconsin, and entered in computer files to facilitate comprehensive analysis. A large range of factors impact wild rice bed size, density, and yield and thus multivariate analysis is needed to collectively examine and weigh all factors potentially impacting northern Wisconsin wild rice beds.

An annual systematic monitoring program of the larger and more important wild rice beds should be initiated. GLIFWC plans include developing an annual aerial survey over northern Wisconsin rice areas and intensified field monitoring at select wild rice sites including complete sediment and water chemistry analysis in relation to wild rice seed production. WDNR plans to continue the rice survey initiated last summer by surveying 9 wild rice sites in 1986 that were not surveyed in 1985 due to lack of time (Niemann 1986).

The wild rice suitability index needs to be refined through supplemental field work and testing. This index can become a valuable tool for assessing wild rice potential

in a body of water to target wild rice enhancement and reintroduction efforts.

More research on crayfish damage needs to be done. Rusty crayfish damage to wild rice beds in northern Wisconsin needs to be quantified and control techniques developed.

Management

GLIFWC and WDNR plan to select several existing and potential wild rice sites to initially target rice protection, enhancement, and reintroduction efforts. Proven rice enhancement techniques and experimental techniques will be implemented. Results from site-specific management will be used with the inventory data base for development of rice protection, enhancement, and reintroduction guidelines and expanded plans for northern Wisconsin.

In the absence of management guidelines, current rice management efforts should be directed at stabilizing May - June water levels by beaver control and/or utilizing existing water control structures. Beaver impacting large bodies of water or rice beds should be controlled through trapping and subsequent removal of dams. Beaver control must be selective, since shallow beaver ponds (less than 1.5 m or 5 ft. deep) can create rice habitat if dam alteration is done at key moments in the spring to prevent rapid water level increases.

Competing perennial aquatic plants in wild rice beds can be controlled by application of aquatic herbicides (roteo is EPA approved for spraying over water in Wisconsin), by mechanical removal, or by overwinter drawdown if feasible (Kuchta 1984). Overwinter drawdown not only controls competing perennials but can also control abundance of rusty crayfish, muskrats, and beaver. Control of perennial aquatics in combination with spring water level stabilization can cause substantial increases in rice bed size and quality. The 200 acre rice bed in Clam Lake, Burnett County (the largest we surveyed) has experienced at least a 3-fold increase in size since the early 1970's, as a result of installation of a water control structure at the outlet and subsequent mechanical removal of submergent aquatics annually by a weed cutter. This work was done by the Clam Lake Association, which reports that not only has it benefitted wild rice but it has also improved fishing success on the lake.

Purple loosestrife control by herbicides or hand removal should be done wherever possible. Purple loosestrife not only poses a threat to wild rice but to the ecological diversity and importance of all wetlands in northern Wisconsin.

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APPENDIX A

Summary of Wild Rice Survey Data

Table 1. Physical and chemical parameters of 1985 wild rice survey areas in northwest Wisconsin.

Name of Waterbody	Wild Rice in hectares (acres)[a]	% of water body <1.5m (5ft) deep covered by W.R. beds	Subject to freeze out?[b]	Bottom types[c]	Shoreline types[d]	Major water source[e]	Drainage type[e]	Noticeable occurrences of pollution	Water control structures	pH reading	Conductivity reading
Barron County											
Bear Lk.	29.10 (72.00)[3]	20%	N	$Mu^2/D^1/S^3/G^1$	$W^3/U^4/D^2$	str	str	yes	yes	8.0	160
Beaver Dam Lk.	-	-	N	$Mu^1/D^1/S^4/G^2/R^2$	$W^2/U^4/D^2$	str	str	yes	yes	8.5	152
Lake Vermillion Lk.	-	-	N	$Mu^1/D^1/S^4/G^2/R^2$	$A^1/W^1/B^1/U^5/D^1$	str	str	No	No	9.0	205
Red Cedar Lk.	-	-	N	$Mu^3/D^2/S^2$	$A^1/W^1/U^4/D^3$	str	str	yes	yes	9.1	120
Rice Lk.	-	-	O	$Mu^3/D^1/S^3$	$A^1/W^1/U^3/D^3$	str	str	yes	yes	9.5	135
Rice Lk.	0.08 (0.20)[2]	2%	O	$Mu^4/D^1/S^3$	$W^2/U^1/D^3$	str	str	yes	no	7.2	112
Stump Lk.	0.04 (0.10)[1]	1%	O	Mu^6	$W^1/U^5/D^1$	str	str	no	yes	9.6	160
Tuscobia Lk.	0.40 (1.00)[1]	2%	O	Mu^4/D^2	$A^1/W^1/U^4/D^1$	str	str	no	no	7.1	145
Vermillion R.	10.10 (25.00)[3]	50%	O	$S^4/G^1/D^1/Mu^1$	$A^1/W^3/D^1$	str	str	no	yes	6.4	122
Burnett County											
Bashaw Lk.	10.10 (25.00)[3]	60%	N	Mu^5/D^1	$W^2/U^4/D^3$	str	str	yes	no	10.1	180
Big Island Lk.	0.69 (1.7)[3]	25%	N	$Mu^2/S^2/R^2$	$W^4/U^3/D^1$	str	str	no	no	7.1	100
Big Sand Lk.	-	-	N	Mu^3/S^3	$W^1/U^3/D^2$	seep	str	yes	no	7.4	95
Bradshaw Sl.	2.40 (6.00)[1]	60%	C	$Mu^3/D^1/S^3$	W^1/U^5	str	str	no	no	7.3	86
Briggs Lk.	13.36 (33.00)[3]	90%	C	$Mu^4/D^1/S^2$	$W^4/U^2/D^1$	str	str	no	no	8.5	110
Clam River Fl.	22.26 (55.00)[3]	30%	N	$Mu^2/D^1/S^4$	U^5/D^1	str	str	yes	yes	8.6	60
Clam Lk.	80.94 (200.00)[3]	30%	N	Mu^5/C^1	$W^3/U^1/D^3$	str	str	yes	yes	6.6	135
Duckshot Lk.	2.02 (5.00)[3]	60%	C	Mu^5/D^1	$W^4/U^3/D^1$	seep	str	no	no	8.0	155
Gaslyn Lk.	24.28 (60.00)[3]	40%	O	Mu^5/C^1	$W^1/U^4/D^1$	str	str	no	no	7.7	140
Gull Lk.	10.12 (25.00)[2]	12%	N	$Mu^2/D^3/S^2$	$W^2/U^4/D^1$	str	str	no	no	7.0	110
Hanscom Lk.	-	-	O	D^1/S^5	$W^2/U^4/D^1$	seep	seep	no	no	9.2	125

Table 1. Continued.

Name of Waterbody	Wild Rice in hectares (acres)[a]	% of water body <1.5m (5ft) deep covered by W.R. beds	Subject to freeze out?[b]	Bottom types[c]	Shoreline types[d]	Major water source[e]	Drainage type[e]	Noticeable occurrences of pollution	Water control structures	pH reading	Conductivity reading
Jackson Lk.	0.60 (1.50)[1]	30%	N	Mu^5/D^1	W^5/U^2	str	str	no	no	6.8	105
Kent Lk.	4.05 (10.00)[3]	60%	O	Mu^5/D^1	W^5/D^1	spr	str	no	no	8.2	200
Lipsett Lk.	1.21 (3.00)[1]	3%	N	Mu^5/C^1	$W^2/U^4/D^2$	str	str	yes	no	9.2	140
Long Lk.	57.06 (140)[1]	75%	N	Mu^6	W^2/U^5	seep	str	no	no	8.2	120
Loon Lk.	-	-	N	$Mu^1/D^2/S^4$	$W^2/U^4/D^2$	seep	str	yes	no	8.7	120
Loon Lk.	22.26 (55.00)[2]	60%	O	$Mu^3/D^1/S^3$	W^3/U^3	str	str	no	no	7.2	120
Lost Lk.	-	-	C	D^1/S^5	$W^4/U^3/D^2$	seep	seep	no	no	7.0	55
Lower Clam Lk.	-	-	N	$Mu^1/D^1/S^4$	$W^1/U^3/D^3$	str	str	yes	yes	8.7	150
Mud Lk.	8.07 (20.00)[3]	80%	C	Mu^5/D^1	$W^4/U^3/D^1$	seep	str	yes	no	7.3	140
Mud Lk.	28.33 (70.00)[1]	65%	O	$Mu^4/D^1/S^2$	$W^1/U^4/D^1$	seep	str	no	no	7.6	64
Mudhen Lk.	8.09 (20.00)[3]	15%	N	Mu^5/C^1	$A^1/W^2/U^3/D^3$	seep	str	yes	no	8.6	130
North Lang Lk.	3.64 (9.00)[3]	60%	C	Mu^5/D^1	$W^4/U^3/D^1$	str	str	no	no	6.4	145
Petersen Lk.	2.40 (6.00)[1]	15%	O	$Mu^5/C^1/D^1$	W^1/U^4	seep	str	no	no	9.6	165
Rice Lk.	12.41 (30.00)[3]	75%	O	Mu^5/D^1	$A^2/W^4/U^2/D^1$	str	str	no	no	9.0	199
Rice Lk.	2.40 (6.00)[1]	3%	N	Mu^4/C^2	$W^2/U^4/D^1$	str	str	yes	no	8.9	200
Rice Lk.	6.07 (15.00)[2]	30%	O	Mu^5/C^1	W^4/U^2	seep	str	no	yes	6.8	119
Robie Lk.	-	-	N	$Mu^3/D^1/S^3$	W^1/U^5	str	str	no	no	7.5	85
Sand Lk.	-	-	N	$Mu^1/D^2/S^4$	$W^2/U^3/D^3$	seep	seep	yes	no	7.6	120
Spencer Lk.	6.07 (15.00)[3]	15%	O	Mu^5/D^1	$W^2/U^4/D^2$	seep	seep	yes	no	8.9	165
Tabor Lk.	-	-	N	$Mu^1/D^1/S^4$	$W^1/U^4/D^1$	seep	str	no	no	8.4	86
Unnamed Lk.	0.53 (1.30)[3]	60%	C	Mu^5/D^1	$W^5/U^2/D^1$	seep	seep	no	no	6.7	130
Webb Creek (lower site)	4.86 (12.00)[3]	70%	O	Mu^5/D^1	W^5/U^1	str	str	no	yes	7.5	105
Webb Creek (upper site)	0.97 (2.40)[3]	2%	O	$Mu^3/D^1/S^4$	$W^3/U^4/D^1$	str	str	no	yes	7.3	130

Table 1. Continued.

Name of Waterbody	Wild Rice in hectares (acres)[a]	% of waterbody <1.5m (5ft) deep covered by W.R. beds	Subject to freeze out?[b]	Bottom types[c]	Shoreline types[d]	Major water source[e]	Drainage type[e]	Noticeable occurrences of pollution	Water control structures	pH reading	Conductivity reading
Yellow R.	17.00 (42.00)[3]	65%	O	$Mu^5/D^1/S^2$	$W^5/U^2/D^1$	str	str	no	no	8.4	205
Yellow R.	1.21 (3.00)[2]	10%	N	$Mu^3/D^1/S^3$	U^5/D^1	str	str	yes	yes	8.4	120
Bayfield County											
Namakagon Lk.	-	-	N	$D^1/S^3/G^2/R^3$	$W^2/U^5/D^4$	str	str	no	yes	7.5	69
Totogatic Lk.	2.02 (5.00)[1]	15%	O	Mu^5	$W^2/U^4/D^1$	str	str	no	no	6.5	65
Douglas County											
Allouez Bay	-	-	N	$Mu^3/D^1/S^3/G^2/R^1$	$W^3/U^3/D^2$	str	str	yes	no	8.0	114
Amnicon Lk.	-	-	N	$Mu^2/D^2/S^3$	$W^1/U^4/D^3$	str	str	yes	no	6.7	62
Buffalo Lk.	-	-	N	$Mu^1/C^4/S^2$	$W^2/U^4/D^1$	seep	str	no	yes	6.2	35
Eau Claire R.	-	-	N	$S^5/G^2/R^2$	$W^4/U^3/D^1$	str	str	no	yes	8.4	110
Minong F.	10.12 (25.00)[2]	75%	O	$Mu^2/C^4/S^1$	$W^2/U^4/D^1$	str	str	no	yes	6.8	72
Mulligan Lk.	8.90 (22.00)[1]	35%	C	Mu^6	W^4/U^1	str	str	no	no	6.9	58
St. Croix R.	14.14 (35.00)[3]	25%	N	$Mu^2/D^1/S^4/G^1$	W^5	str	str	no	no	7.2	107
Iron County											
E. Turtle Flam F.	6.07 (15.00)[3]	10%	N	$C^5/D^1/S^1$	W^2/U^5	str	str	no	yes	7.2	77
L. Turtle F.	-	-	C	Mu^4/S^2	W^3/U^3	str	str	no	yes	7.4	111
Mud Lk.	6.07 (15.00)[1]	30%	N	Mu^5/S^1	W^4/U^2	spr	str	no	no	7.5	105
Rice Lk.	-	-	N	$Mu^4/D^1/S^2$	$W^2/U^4/D^1$	str	str	no	yes	7.4	85
Rice Lk.	0.41 (1.00)[1]	1%	O	Mu^6	$W^5/U^1/D^1$	str	str	no	no	6.7	90
Polk County											
Apple R.	1.21 (3.00)[2]	25%	C	Mu^2/S^5	W^4	str	str	no	no	8.4	220
Balsam Br. C.	1.62 (4.00)[1]	10%	N	Mu^5/D^1	$A^1/N^2/U^2$	str	str	no	yes	8.8	170
Balsam Lk.	-	-	N	S^5/G^1	$W^2/U^2/D^4$	str	str	yes	yes	8.0	175
Balsam Lk. (stumps)	-	-	N	Mu^1/D^5	W^4/D^2	str	str	yes	yes	7.9	165

Table 1. Continued.

Name of Waterbody	Wild Rice in hectares (acres)[a]	% of waterbody <1.5m (5ft) deep covered by W.R. beds	Subject to freeze out?[b]	Bottom types[c]	Shoreline types[d]	Major water source[e]	Drainage type[e]	Noticeable occurrences of pollution	Water control structures	pH reading	Conductivity reading
Big Round Lk.	0.61 (1.50)[3]	1%	N	Mu^5/C^1	$W^2/U^3/D^3$	str	str	no	yes	8.0	180
Fountain Lk	-	-	N	$C^1/D^1/S^4$	W^1/U^5	spr	str	no	yes	7.4	210
Glenton Lk.	0.04 (0.10)[1]	1%	O	Mu^5/D^1	$A^3/W^2/U^3/D^1$	seep	str	yes	no	8.6	180
Lake 29	-	-	C	C^3/S^4	$A^2/W^1/U^3/D^2$	seep	seep	no	no	8.0	48
Little Butternut Lk.	6.07 (15.00)[2]	15%	N	Mu^5/C^1	$A^1/U^4/D^2$	str	str	no	no	7.3	123
Long Lk.	-	-	N	$Mu^3/S^4/G^1$	$A^1/W^2/U^5/D^2$	seep	seep	no	no	7.9	36
Lotus Lk.	0.81 (2.00)[1]	2%	N	$Mu^1/D^1/S^5$	$W^1/U^4/D^1$	str	str	yes	no	7.4	165
Peasle Lk.	0.04 (0.10)[1]	1%	O	Mu^2/S^4	W^4/U^1	str	str	no	no	7.2	153
Rice Lk.	-	-	N	$C^1/D^1/S^4$	$A^3/N^1/U^3/D^1$	seep	seep	yes	no	9.5	140
Rice Lk.	28.33 (70.00)[3]	75%	C	Mu^5/C^1	U^5/D^1	seep	str	no	no	6.9	160
Rice Lk.	3.24 (8.00)[3]	75%	C	Mu^5/D^2	$A^1/W^5/U^1$	str	str	no	no	7.1	220
Straight R.	-	-	C	$Mu^3/S^3/G^1$	$A^1/W^4/D^1$	str	str	yes	no	6.7	190
White Ash Lk.	12.14 (30.00)[2]	75%	N	Mu^5/C^1	$W^2/U^3/D^3$	str	str	yes	no	9.0	195
Price County											
Big Pine Lk.	-	-	N	$Mu^1/S^5/G^1/R^1$	$W^4/U^4/D^1$	str	str	no	no	6.5	59
Blockhouse Lk.	4.05 (10.00)[2]	25%	O	$Mu^1/D^1/S^5$	$W^2/U^4/D^3$	str	str	yes	yes	7.1	67
Pike Lk.	-	-	N	$Mu^2/S^4/G^1/R^1$	$W^1/U^5/D^2$	str	str	no	yes	6.8	71
Squaw Cr.	5.26 (13.00)[2]	13%	O	$Mu^4/S^2/G^1$	W^4/U^3	str	str	no	no	6.8	95
Rusk County											
Chain Lk.	2.83 (7.00)[2]	5%	N	Mu^2/D^4	$W^3/U^2/D^2$	str	str	no	no	7.8	112
Fireside Lk.	4.86 (12.00)[3]	16%	N	$Mu^2/D^1/S^4/G^1$	$W^3/U^5/D^1$	str	str	no	no	8.4	140
Island Lk.	-	-	N	$Mu^1/D^1/S^4/G^1$	$A^1/W^1/U^3/D^3$	str	str	yes	yes	8.4	113
McCann Lk.	0.81 (2.00)[1]	2%	N	$Mu^3/D^5/S^1$	$W^1/U^4/D^2$	str	str	yes	no	8.2	110
Potato Cr. F.	6.07 (15.00)[3]	25%	O	Mu^5/D^1	W^4/U^3	str	str	no	yes	6.3	225

Table 1. Continued.

Name of Waterbody	Wild Rice in hectares (acres)[a]	% of waterbody <1.5m (5ft) deep covered by W.R. beds	Subject to freeze out?[b]	Bottom types[c]	Shoreline types[d]	Major water source[e]	Drainage type[f]	Noticeable occurrences of pollution	Water control structures	pH reading	Conductivity reading
Rea Flowage	0.40 (1.00)[1]	1%	N	C^5/D^1	$A^1/W^1/U^3/D^2$	str	str	yes	yes	6.8	78
Ten Mile Cr.	1.62 (4.00)[1]	2%	0	Mu^5/D^1	$A^1/W^4/U^2$	str	str	yes	no	6.6	200
Sawyer County											
Barker Lk.	29.95 (74.00)[2]	30%	0	$Mu^2/S^3/G^4/R^3$	$W^2/U^4/D^3$	str	str	yes	no	7.3	86
Beverly Lk.	-	-	N	$Mu^1/D^1/S^3/R^3$	W^2/U^5	str	str	no	no	8.3	115
Billy Boy F.	8.90 (22.00)[3]	40%	0	Mu^5/D^1	$W^4/U^3/D^1$	str	str	no	yes	7.2	94
Blaisdell Lk.	7.69 (19.00)[2]	10%	0	$Mu^2/D^1/S^3/G^2$	$W^2/U^4/D^3$	str	str	yes	no	6.6	85
Blueberry Lk.	-	-	N	$Mu^3/S^3/G^1/R^1$	$W^1/U^4/D^2$	seep	seep	no	no	9.2	104
Callahan Lk.	-	-	N	$Mu^1/D^1/S^4/G^2/R^2$	$W^2/U^4/D^2$	str	str	no	yes	7.4	73
Devils Lk.	-	-	N	$Mu^1/D^1/S^3/G^3$	W^3/U^4	seep	str	no	no	9.3	89
Ghost Lk.	-	-	N	$Mu^1/S^3/G^2/R^4$	$W^4/U^3/D^2$	str	str	no	yes	7.1	87
Lac Courte Oreilles L.	0.80 (2.00)[1]	1%	N	Mu^6	$W^1/U^3/D^3$	str	str	yes	no	8.0	111
Lake Chetac	0.80 (2.00)[3]	1%	N	$C^2/D^1/S^3$	$W^1/U^4/D^3$	str	str	yes	yes	8.4	112
Lake Chippewa	-	-	N	$Mu^2/D^1/S^4/G^1/R^1$	$A^1/W^2/U^4/D^4$	str	str	yes	yes	7.1	105
Little Round Lake	-	-	N	$S^2/G^3/R^3$	$W^2/U^4/D^3$	str	str	yes	yes	7.2	88
Mud Lk.	3.24 (8.00)[1]	25%	0	$Mu^5/D^1/S^1$	W^5	str	str	no	no	8.9	96
Nelson Lk.	-	-	N	$Mu^2/D^1/S^3/G^2/R^3$	$W^2/U^4/D^1$	str	str	no	yes	6.7	80
Pacawong Lk.	40.47 (100.00)[3]	60%	0	$Mu^5/D^1/S^1$	$W^3/U^3/D^1$	str	str	no	yes	7.4	190
Phipps F.	4.45 (11.00)[3]	25%	N	$Mu^2/D^1/S^4/G^1$	$W^2/U^3/D^2$	str	str	no	yes	7.3	150
Smith Lk.	-	-	N	$Mu^1/D^1/S^4/G^1$	$W^1/U^5/D^2$	spr	str	no	no	6.4	120
Spider Lk.	-	-	N	$Mu^1/S^2/G^2/R^4$	$W^3/U^5/D^4$	seep	str	yes	yes	7.6	82
Teal Lk.	-	-	N	$Mu^1/S^3/R^4$	$W^4/U^3/D^4$	str	str	yes	yes	7.3	71
Tiger Cat F.	-	-	0	$Mu^3/D^1/S^3/G^1$	$W^2/U^4/D^1$	seep	str	no	yes	6.9	72
Taylor County											
Mondeaux F.	4.86 (12.00)[2]	20%	0	Mu^4/D^2	$W^1/U^5/D^1$	str	str	no	yes	6.4	86

Table 1. Continued.

Name of Waterbody	Wild Rice in hectares (acres)[a]	% of water body <1.5m (5ft) deep covered by W.R. beds	Subject to freeze out?[b]	Bottom types[c]	Shoreline types[d]	Major water source[e]	Drainage type[e]	Noticeable occurrences of pollution	Water control structures	pH reading	Conductivity reading
Washburn County											
Balsam Lk.	2.83 (7.00)[3]	25%	N	$Mu^2/D^1/S^3/G^2/R^2$	$W^1/U^4/D^1$	spr	str	no	no	7.6	204
Dilly Lk.	12.14 (30.00)[3]	75%	O	$Mu^5/S^1/G^2$	$W^2/U^4/D^1$	str	str	no	no	7.8	195
Gilmore Lk.	0.80 (2.00)[1]	1%	N	$Mu^4/D^1/S^2$	$W^1/U^3/D^3$	seep	str	yes	no	8.3	67
Kekegama Lk.	1.21 (3.00)[2]	5%	N	$Mu^2/C^4/S^1$	$W^1/U^4/D^1$	str	str	no	no	9.2	185
Little Mud Lk.	12.14 (30.00)[3]	50%	N	$Mu^4/D^2/S^1$	$W^1/U^4/D^1$	spr	str	no	no	9.2	130
Long Lk.	20.24 (50.00)[3]	40%	N	$Mu^4/D^2/S^1$	$A^1/W^1/U^3/D^3$	str	str	yes	yes	8.5	185
Mud Lk.	-	-	C	$Mu^5/D^1/S^2$	$W^4/U^3/D^1$	seep	str	no	no	6.7	107
Mud Lk.	4.45 (11.00)[3]	80%	N	Mu^4/D^3	$A^2/W^1/U^4/D^1$	spr	str	yes	no	9.1	175
Nancy Lk.	-	-	N	$Mu^3/C^2/S^2$	$W^2/U^3/D^1$	seep	str	yes	no	6.9	56
Potato Lk.	12.12 (30.00)[3]	50%	O	$Mu^5/D^1/S^2/G^2$	$W^1/U^5/D^3$	spr	str	yes	no	8.6	120
Rice Lk.	19.63 (48.50)[3]	65%	N	$Mu^2/D^1/S^4$	$W^4/U^3/D^1$	str	str	no	no	7.6	116
Spring Lk.	0.40 (1.00)[1]	2%	N	$Mu^3/D^1/S^3$	$A^1/W^1/U^4/D^1$	spr	str	no	yes	8.6	154
Spring Lk.	-	-	O	$Mu^2/D^1/S^4$	$A^1/W^2/U^3/D^1$	seep	seep	no	yes	6.5	25
Spring Lk.	-	-	N	$Mu^4/D^1/S^2$	$W^1/U^4/D^2$	seep	seep	no	no	7.0	66
Spring Lk.	12.12 (30.00)[3]	55%	C	$Mu^4/D^3/S^2$	W^2/U^4	spr	str	no	no	6.9	77
Tranus Lk.	40.5 (100.00)[1]	80%	O	Mu^5/C^1	$W^2/U^4/D^1$	str	str	no	yes	7.2	49
Trego Lk.	2.83 (7.00)[3]	5%	N	$Mu^4/D^1/S^2$	$W^1/U^5/D^1$	str	str	yes	yes	7.5	160
Whalen Lk.	0.69 (1.70)[3]	20%	N	$Mu^2/S^4/R^2$	$W^3/U^4/D^2$	str	str	no	no	7.8	117
Yellow River	3.64 (9.00)[3]	60%	O	$Mu^5/D^2/S^1$	W^4/U^1	str	str	no	yes	7.1	195
TOTALS	767.76 (1896.10)										

Table 1. Continued, footnotes.

[a] Approximate stand density (percent water coverage):
X = sparse (<33%)
X^2 = medium (33-66%)
X^3 = dense (>66%)

[b] N = no
O = occasionally
C = commonly

[e] run = runoff
seep = seepage
spr = spring
str = stream

[c] Bottom type abbreviations:
Mu = muck or silt
C = clay
Ma = marl
D = detritus
S = sand
G = gravel
R = rock or boulder

Bottom types of water area <1.5 m (5ft) deep (percent coverage):
X^1 = <10%
X^2 = 10-25%
X^3 = 25-50%
X^4 = 50-75%
X^5 = 75-95%
X^6 = >75%

[d] Shoreline type abbreviations:
A = agriculture
W = wetlands besides bog mat
B = bog mat
U = upland
D = development

Shoreline types (percent coverage):
X^1 = 0
X^2 = 1-10%%
X^3 = 10-25%
X^4 = 25-50%
X^5 = 50-75%
X^6 = >75%

Table 2. Biological parameters and potential management strategies of 1985 wild rice survey areas in northwest Wisconsin.

Name of waterbody	Emergent vegetation[a] (% coverage)	Floating vegetation[b] (% coverage)	Submergent vegetation[c] (% coverage)	algae[d] (% coverage)	Purple loosestrife[e] in hectares (acres)	Potential nuisance wildlife[f]	W.R. suitability index	Potential Management strategies[g]
Ashland County								
Barron County								
Bear Lk.	10-25%	10-25%	25-50%	<10%	-	black/musk	160.0	spr. lev. ctrl./veg. ctrl./wint. draw
Beaver Dam Lk.	10-25%	10-25%	25-50%	<10%	0.20 (0.50)[6]	cray	114.0	spr. lev. ctrl./wint. draw./nuis. wildl. ctrl./ reseed.
Lower Vermillion Lk.	10-25%	10-25%	25-50%	<10%	-	cray/musk	121.0	nuis. wildl. ctrl./veg. ctrl./reseed.
Red Cedar Lk.	10-25%	10-25%	25-50%	<10%	0.40 (1.8)[6]	cray/musk	119.0	nuis. wildl. ctrl./spr. lev. ctrl/wint. draw./ veg. ctrl./reseed.
Rice Lk.	10-25%	10-25%	10-25%	10-25%	0.40 (1.8)[6]	cray	118.0	nuis. wildl. ctrl./spr. lev. ctrl/wint. draw./ veg. ctrl./reseed.
Rice Lk.	25-50%	50-75%	10-25%	<10%	-	carp/cray/black	117.5	nuis. wildl. ctrl.
Stump Lk.	25-50%	10-25%	25-50%	10-25%	-	black	145.0	nuis. wildl. ctrl./spr. lev. ctrl./wint. draw/ veg. ctrl./reseed.
Tuscobia Lk.	<10%	10-25%	>75%	<10%	-	black/musk	132.5	nuis. wildl. ctrl/veg. ctrl.
Vermillion R.	10-25%	10-25%	50-75%	<10%	0.04 (0.10)[1]	cray/black	150.0	wint. draw/spr. lev. ctrl.

Table 2. Continued.

Name of waterbody	Emergent vegetation[a] (% coverage)	Floating vegetation[b] (% coverage)	Submergent vegetation[c] (% coverage)	algae[d] (% coverage)	Purple loosestrife[e] in hectares (acres)	Potential nuisance wildlife[f]	W.R. suitability index	Potential Management strategies[g]
Burnett County								
Bashaw Lk.	10-25%	10-25%	25-50%	<10%	-	beav/black	139.0	veg. ctrl/beav. ctrl.
Big Island	10-25%	<10%	25-50%	10-25%	-	carp/cray/black	144.0	nuis. wildl. ctrl./ veg. ctrl.
Big Sand Lk.	25-50%	25-50%	10-25%	<10%	-	black/musk	106.5	veg. ctrl./reseed.
Bradshaw Sl.	25-50%	25-50%	10-25%	<10%	-	black	145.5	veg. ctrl.
Briggs Lk.	<10%	<10%	50-75%	<10%	-	cray/black	164.0	nuis. wildl. ctrl./ veg. ctrl.
Clam River F.	10-25%	<10%	>75%	<10%	-	cray/black	146.5	nuis. wildl. ctrl/veg. ctrl./wint.draw/spr. lev. ctrl.
Clam Lk.	10-25%	10-25%	50-75%	<10%	-	carp/black	155.5	nuis. wildl. ctrl./veg. ctrl./wint.draw/ spr. lev. ctrl.
Duckshot Lk	25-50%	10-25%	25-50%	<10%	-	black	144.0	beav. ctrl./veg. ctrl.
Gaslyn Lk.	25-50%	25-50%	10-25%	<10%	-	black/musk	158.5	veg. ctrl.
Gull Lk.	10-25%	25-50%	10-25%	<10%	-	black	153.0	veg. ctrl.
Hanscom Lk.	25-50%	25-50%	<10%	<10%	-	-	107.0	reseed./veg. ctrl.
Jackson Lk.	25-50%	25-50%	25-50%	<10%	-	cray/black	120.5	beav. ctrl/veg. ctrl
Kent Lk.	<10%	25-50%	>75%	<10%	1.01 (2.50)[1]	beav/cray/musk	134.0	nuis. wildl. ctrl/ beav. ctrl/veg. ctrl
Lipsett Lk.	10-25%	25-50%	25-50%	<10%	-	carp/black	126.0	nuis. wildl. ctrl.

Table 2. Continued.

Name of waterbody	Emergent vegetation[a] (% coverage)	Floating vegetation[b] (% coverage)	Submergent vegetation[c] (% coverage)	algae[d] (% coverage)	Purple loosestrife[e] in hectares (acres)	Potential nuisance wildlife[f]	W.R. suitability index	Potential Management strategies[g]
Long Lk.	25-50%	10-25%	25-50%	<10%	-	black	159.0	veg. ctrl.
Loon Lk.	10-25%	50-75%	10-25%	<10%	-	cray/black	114.0	veg. ctrl/reseed.
Loon Lk.	25-50%	10-25%	10-25%	<10%	-	cray/musk	161.5	nuis. wildl. ctrl./ veg. ctrl.
Lost Lk.	10-25%	10-25%	50-75%	<10%	0.04 (0.10)[6]	cray/black	107.5	veg. ctrl./reseed.
Lower Clam Lk.	<10%	10-25%	50-75%	<10%	-	carp/black	121.0	veg. ctrl./reseed.
Mud Lk.	10-25%	<10%	10-25%	<10%	-	-	152.0	-
Mud Lk.	25-50%	25-50%	10-25%	<10%	0.04 (0.10)[1]	black	148.0	-
Mudhen Lk.	25-50%	10-25%	25-50%	<10%	-	cray/black	149.5	veg. ctrl.
North Lang Lk.	10-25%	10-25%	25-50%	<10%	-	musk	156.0	-
Petersen Lk.	<10%	10-25%	50-75%	<10%	-	cray/black	145.0	veg. ctrl.
Rice Lk.	10-25%	10-25%	25-50%	<10%	-	cray/black	142.5	-
Rice Lk.	10-25%	25-50%	25-50%	<10%	0.81 (2.00)[5]	carp	137.0	nuis. wildl. ctrl./ veg. ctrl.
Rice Lk.	<10%	10-25%	50-75%	<10%	-	cray/black	149.0	veg. ctrl./wint. draw./ spr. lev. ctrl.
Robie Lk.	<10%	25-50%	25-50%	<10%	-	black	126.5	veg. ctrl.
Sand Lk.	10-25%	25-50%	10-25%	<10%	-	-	116.0	veg. ctrl/reseed.
Spencer Lk.	<10%	10-25%	50-75%	<10%	-	black	141.0	veg. ctrl/reseed.
Tabor Lk.	<10%	25-50%	25-50%	<10%	-	black	119.0	veg. ctrl/reseed.

Table 2. Continued.

Name of waterbody	Emergent vegetation[a] (% coverage)	Floating vegetation[b] (% coverage)	Submergent vegetation[c] (% coverage)	algae[d] (% coverage)	Purple loosestrife[e] in hectares (acres)	Potential nuisance wildlife[f]	W.R. suitability index	Potential Management strategies[g]
Unnamed Lk.	50-75%	<10%	<10%	<10%	-	black	150.0	-
Webb Cr. (lowersite)	10-25%	<10%	25-50%	10-25%	-	black/musk	156.0	wint. draw/spr. lev. ctrl./nuis. wildl. ctrl.
Webb Cr. (uppersite)	50-75%	10-25%	25-50%	10-25%	-	black	147.0	wint. draw./spr. lev. ctrl.
Yellow R.	25-50%	10-25%	25-50%	<10%	-	carp/cray/black/ musk	150.5	veg. ctrl./nuis. wildl. ctrl.
Yellow R.	25-50%	25-50%	25-50%	<10%	-	cray/black	131.5	veg. ctrl./spr. lev. ctrl./wint. draw.
Bayfield County								
Namakagon Lk.	50-75%	<10%	10-25%	<10%	-	cray/black/musk	104.5	nuis. wildl. ctrl./ veg. ctrl./reseed.
Totogatic Lk.	50-75%	10-25%	<10%	<10%	-	cray/black/musk	147.5	nuis. wildl. ctrl./ reseed.
Douglas County								
Allouez Bay	10-25%	10-25%	25-50%	<10%	12.14 (30.00)[6]	carp/black/cray musk	121.0	nuis. wildl. ctrl/ veg. ctrl./reseed.
Amnicon Lk.	25-50%	10-25%	25-50%	<10%	0.41 (1.00)[6]	cray/black	111.0	veg. ctrl./reseed.
Buffalo Lk.	10-25%	50-75%	25-50%	<10%	-	musk	114.0	wint. draw/spr. lev. ctrl./reseed./veg. ctrl.
Eau Claire R.	10-25%	<10%	50-75%	<10%	-	cray/musk	105.0	wint. draw/spr. lev. ctrl./reseed.

Table 2. Continued.

Name of waterbody	Emergent vegetation[a] (% coverage)	Floating vegetation[b] (% coverage)	Submergent vegetation[c] (% coverage)	algae[d] (% coverage)	Purple loosestrife[e] in hectares (acres)	Potential nuisance wildlife[f]	W.R. suitability index	Potential Management strategies[g]
Minong F.	25-50%	10-25%	10-25%	10-25%	-	carp/cray/black musk	153.5	wildl. nuis. ctrl./ spr. lev. ctrl./wint. draw./veg. ctrl.
Mulligan Lk.	<10%	25-50%	25-50%	<10%	-	beav/black/musk	156.0	nuis. wildl. ctrl./ beav. ctrl./spr. lev. ctrl./wint. draw.
St. Croix R.	10-25%	10-25%	50-75%	<10%	2.83 (7.00)[1]	carp/cray/black/ musk	150.5	nuis. wildl. ctrl./ veg. ctrl./
Iron County								
E. Turtle Flam F.	>75%	<10%	<10%	<10%	-	black/musk	154.5	veg. ctrl./spr. lev. ctrl./wint. draw.
L. Turtle F.	>75%	<10%	<10%	<10%	-	-	130.5	spr. lev. ctrl./wint. draw./reseed.
Mud Lk.	50-75%	10-25%	<10%	<10%	-	beav/black	140.0	beav. ctrl./reseed.
Rice Lk.	25-50%	10-25%	25-50%	<10%	-	black/musk	123.0	veg. ctrl./reseed./ wint. draw/spr. lev. ctrl.
Rice Lk.	50-75%	<10%	<10%	<10%	-	black/musk	152.0	reseed.
Polk County								
Apple River	25-50%	<10%	25-50%	10-25%	-	black/musk/beav	137.5	beav. ctrl.
Balsam Br. C.	10-25%	10-25%	>75%	<10%	-	black/musk	129.0	veg. ctrl./wint. draw. spr. lev. ctrl./reseed.
Balsam Lk.	<10%	10-25%	>75%	10-25%	-	-	103.5	veg. ctrl./reseed.
Balsam Lk. (stumps)	<10%	10-25%	50-75%	<10%	-	-	120.5	veg. ctrl./reseed.

Table 2. Continued.

Name of waterbody	Emergent vegetation[a] (% coverage)	Floating vegetation[b] (% coverage)	Submergent vegetation[c] (% coverage)	algae[d] (% coverage)	Purple loosestrife[e] in hectares (acres)	Potential nuisance wildlife[f]	W.R. suitability index	Potential Management strategies[g]
Big Round Lk.	10-25%	<10%	50-75%	10-25%	-	carp/black	151.0	nuis. wildl. ctrl./ beav. ctrl.
Fountain Lk.	<10%	25-50%	25-50%	<10%	-	black	115.5	-
Glenton Lk.	10-25%	10-25%	25-50%	10-25%	-	-	134.0	veg. ctrl./reseed.
Lake 29	<10%	50-75%	<10%	<10%	-	-	116.0	veg. ctrl./reseed.
Little Butternut Lk.	10-25%	10-25%	50-75%	<10%	-	cray/black/musk	139.0	veg. ctrl.
Long Lk.	10-25%	25-50%	10-25%	10-25%	-	cray	113.5	-
Lotus Lk.	<10%	25-50%	50-75%	<10%	-	-	136.5	veg. ctrl./reseed.
Peaslee Lk.	10-25%	10-25%	25-50%	<10%	-	carp/cray/musk	128.0	nuis. wildl. ctrl./ spr. lev. ctrl.
Rice Lk.	<10%	10-25%	50-75%	<10%	-	-	103.0	veg. ctrl./reseed.
Rice Lk.	<10%	10-25%	25-50%	<10%	-	beav/carp	148.5	beav. ctrl./nuis. wildl. ctrl.
Rice Lk.	25-50%	<10%	25-50%	<10%	-	black	157.5	veg. ctrl.
Straight R.	50-75%	<10%	10-25%	10-25%	-	cray/black	117.5	veg. ctrl./reseed.
White Ash Lk.	<10%	25-50%	50-75%	<10%	-	carp/black	139.0	nuis. wildl. ctrl./ veg. ctrl.
Price County								
Big Pine Lk.	>75%	<10%	10-25%	<10%	-	-	123.0	veg. ctrl./reseed.
Blockhouse Lk.	50-75%	10-25%	25-50%	<10%	-	cray/black/musk	138.0	nuis. wildl. ctrl./ veg. ctrl.

Table 2. Continued.

Name of waterbody	Emergent vegetation[a] (% coverage)	Floating vegetation[b] (% coverage)	Submergent vegetation[c] (% coverage)	algae[d] (% coverage)	Purple loosestrife[e] in hectares (acres)	Potential nuisance wildlife[f]	W.R. suitability index	Potential Management strategies[g]
Pike Lk.	50-75%	10-25%	<10%	<10%	-	cray/musk	117.5	veg. ctrl./reseed.
Squaw Lk.	25-50%	25-50%	25-50%	<10%	-	black/musk	143.5	veg. ctrl.
Rusk County								
Chain Lk.	50-75%	10-25%	25-50%	<10%	-	cray/black/musk	132.5	nuis. wildl. ctrl./ veg. ctrl.
Fireside Lk.	<10%	25-50%	25-50%	<10%	-	cray/black/musk	148.0	nuis. wildl. ctrl./ veg. ctrl.
Island Lk.	25-50%	25-50%	10-25%	<10%	-	cray/black	115.5	spr. lev. ctrl./ wint. draw.
McCann Lk.	25-50%	25-50%	25-50%	<10%	-	cray/black	121.0	veg. ctrl.
Potato Cr. F.	25-50%	25-50%	25-50%	<10%	-	cray/black/musk	147.0	nuis. wildl. ctrl./ spr. lev. ctrl./ wint. draw.
Rea F.	50-75%	<10%	10-25%	<10%	0.40 (1.0)[1]	black	117.5	spr. lev. ctrl./ wint. draw.
Ten Mile Cr.	50-75%	<10%	25-50%	10-25%	-	black/musk	130.0	veg. ctrl.
Sawyer County								
Barker Lk.	10-25%	25-50%	25-50%	<10%	-	cray/black/musk	137.0	nuis. wildl. ctrl./ wint. draw./spr. lev. ctrl.
Beverly Lk.	10-25%	25-50%	10-25%	<10%	-	cray/black/musk	118.5	nuis. wildl. ctrl./ veg. ctrl./reseed.

Table 2. Continued.

Name of waterbody	Emergent vegetation[a] (% coverage)	Floating vegetation[b] (% coverage)	Submergent vegetation[c] (% coverage)	algae[d] (% coverage)	Purple loosestrife[e] in hectares (acres)	Potential nuisance wildlife[f]	W.R. suitability index	Potential Management strategies[g]
Billy Boy F.	10-25%	10-25%	25-50%	<10%	-	cray/black/musk	152.5	nuis. wildl. ctrl./ spr. lev. ctrl./ wint. draw.
Blaisdell Lk.	10-25%	25-50%	50-75%	<10%	-	carp/cray/black musk	138.0	nuis. wildl. ctrl./ veg. ctrl.
Blueberry Lk.	25-50%	10-25%	10-25%	<10%	-	cray/black/musk	116.0	-
Callahan Lk.	<10%	10-25%	50-75%	<10%	-	cray/black/musk	119.5	spr. lev. ctrl./ wint. draw.
Devils Lk.	10-25%	10-25%	>75%	50-75%	-	cray/black/musk	109.0	veg. ctrl./reseed.
Ghost Lk.	10-25%	25-50%	25-50%	<10%	-	cray/black/musk	110.0	nuis. wildl. ctrl./ veg. ctrl./reseed./ wint. draw./spr. lev. ctrl.
Lac Courte Oreilles L.	25-50%	10-25%	25-50%	<10%	-	black/musk	129.5	veg. ctrl.
Lake Chetac	25-50%	25-50%	25-50%	<10%	-	black/musk	131.5	veg. ctrl./spr. lev. ctrl./wint. draw.
Lake Chippewa	25-50%	10-25%	25-50%	<10%	-	cray/black/musk	114.0	spr. lev. ctrl/wint. draw./veg. ctrl./ reseed./nuis. wildl. ctrl.
Little Round Lk.	>75%	10-25%	10-25%	<10%	-	cray/black	91.5	veg. ctrl./reseed./ spr. lev. ctrl./ wint. draw.
Mud Lk.	10-25%	10-25%	25-50%	<10%	-	cray/black	134.0	veg. ctrl.
Nelson Lk.	10-25%	10-25%	25-50%	<10%	-	cray/black/musk	122.0	veg. ctrl./wint. draw/ spr. lev. ctrl./reseed/ reseed./nuis. wildl. ctrl.

Table 2. Continued.

Name of waterbody	Emergent vegetation[a] (% coverage)	Floating vegetation[b] (% coverage)	Submergent vegetation[c] (% coverage)	algae[d] (% coverage)	Purple loosestrife[e] in hectares (acres)	Potential nuisance wildlife[f]	W.R. suitability index	Potential Management strategies[g]
Pacawong Lk.	25-50%	<10%	25-50%	<10%	-	cray/black/musk	166.0	nuis. wildl. ctrl./ spr. lev. ctrl./wint. draw.
Phipps F.	25-50%	10-25%	25-50%	<10%	-	cray/black/musk	143.0	nuis. wildl. ctrl./ spr. lev. ctrl./ wint. draw.
Smith Lk.	25-50%	10-25%	10-25%	<10%	-	cray/black	112.5	-
Spider Lk.	10-25%	25-50%	25-50%	<10%	0.08 (0.20)[6]	cray/black/musk	103.0	nuis. wildl. ctrl./ spr. lev. ctrl./ wint. draw./veg. ctrl./reseed.
Teal Lk.	25-50%	<10%	25-50%	<10%	-	cray/black/musk	109.5	nuis. wildl. ctrl./ spr. lev. ctrl./ wint. draw./reseed./ veg/ ctrl.
Tiger Cat F.	10-25%	10-25%	25-50%	<10%	-	cray/black/musk	124.0	nuis. wildl. ctrl./ spr. lev. ctrl./wint. draw./veg. ctrl./reseed.
Taylor County								
Mondeax F.	<10%	10-25%	50-75%	<10%	-	black/musk	144.0	veg. ctrl./spr. lev. ctrl./wint. draw.
Washburn County								
Balsam Lk.	<10%	10-25%	50-75%	<10%	-	cray/black/musk	135.5	nuis. wildl. ctrl./ veg. ctrl.

Table 2. Continued.

Name of waterbody	Emergent vegetation[a] (% coverage)	Floating vegetation[b] (% coverage)	Submergent vegetation[c] (% coverage)	algae[d] (% coverage)	Purple loosestrife[e] in hectares (acres)	Potential nuisance wildlife[f]	W.R. suitability index	Potential Management strategies[g]
Dilly Lk.	10-25%	10-25%	25-50%	<10%	-	carp/black/musk/ beav	151.0	nuis. wildl. ctrl./ beav. ctrl.
Gilmore Lk.	10-25%	25-50%	10-25%	<10%	-	cray/black	122.5	veg. ctrl./reseed.
Kekegama Lk.	10-25%	25-50%	25-50%	<10%	-	black/musk	138.0	veg. ctrl./nuis. wildl. ctrl.
Little Mud Lk.	<10%	10-25%	<75%	<10%	-	black/musk	154.0	veg. ctrl.
Long Lk.	25-50%	25-50%	25-50%	<10%	-	carp/cray/black musk	142.5	veg. ctrl./nuis. wildl. ctrl./wint. draw/spr. lev. ctrl.
Mud Lk.	10-25%	50-75%	10-25%	<10%	-	cray/black	113.5	veg. ctrl./reseed.
Mud Lk.	<10%	25-50%	50-75%	10-25%	-	black/musk	132.5	veg. ctrl.
Nancy Lk.	10-25%	50-75%	25-50%	<10%	-	cray/black	118.5	veg. ctrl./reseed.
Potato Lk.	10-25%	<10%	25-50%	10-25%	-	cray/black/musk	154.5	nuis. wildl. ctrl./ veg. ctrl.
Rice Lk.	10-25%	10-25%	25-50%	<10%	-	cray/black/musk	162.5	nuis. wildl. ctrl./ veg. ctrl.
Spring Lk.	10-25%	25-50%	25-50%	<10%	-	cray/black	127.0	veg. ctrl./wint. draw/ spr. lev. ctrl.
Spring Lk.	10-25%	25-50%	25-50%	<10%	0.40 (1.00)	cray/black	113.5	wint. draw/spr. lev. ctrl./veg. ctrl./ reseed.
Spring Lk.	25-50%	25-50%	10-25%	<10%	-	cray/black	119.5	veg. ctrl./reseed.

Table 2. Continued.

Name of waterbody	Emergent vegetation[a] (% coverage)	Floating vegetation[b] (% coverage)	Submergent vegetation[c] (% coverage)	algae[d] (% coverage)	Purple loosestrife[e] in hectares (acres)	Potential nuisance wildlife[f]	W.R. suitability index	Potential Management strategies[g]
Spring Lk.	25-50%	<10%	25-50%	<10%	-	black/musk	163.0	-
Tranus Lk.	10-25%	25-50%	25-50%	<10%	-	cray/black/musk	150.5	wint. draw/spr. lev. ctrl./veg. ctrl./nuis. wildl ctrl.
Trego Lk.	10-25%	10-25%	50-75%	10-25%	-	cray/black/musk	138.0	nuis. wildl. ctrl./ wint. draw/spr. lev. ctrl./veg. ctrl.
Whalen Lk.	10-25%	10-25%	25-50%	<25%	-	cray/black	133.5	veg. ctrl.
Yellow River	10-25%	10-25%	25-50%	10-25%	0.08 (0.2)	carp/cray/black/ musk	152.0	nuis. wildl. ctrl./ veg. ctrl./wint. draw/ spr. lev. ctrl.

Table 2. Continued, footnotes.

[a]Emergent vegetation besides wild rice in water <1.5 m. (5 ft.) deep (percent coverage).

[b]Floating vegetation (waterlily, etc.) in water <1.5 m. (5 ft.) deep (percent coverage).

[c]Submergent vegetation in water <1.5 m. (5 ft.) deep (percent coverage).

[d]Algae in water <1.5 m. (5 ft.) deep (percent coverage).

[e]Distance from closest rice bed in meters (yards):
X^1 = <9 m. (10 yds)
X^2 = 9-45 m. (10-50 yds)
X^3 = 45-90 m. (50-100 yds)
X^4 = 90-225 m. (100-250 yds)
X^5 = 225-440 m. (250-440 yds)
X^6 = >400 m. (>440 yds)

[g]General management strategies for enhancement of wild rice:
beav. ctrl. = beaver control by dam destruction or population reduction
nuis. wildl. ctrl. = monitoring and controlling if possible nuisance wildlife found in column six.
spr. lev. ctrl. = spring water level monitoring and control if possible.
veg. ctrl. = vegetation control either by mechanical or chemical means.
wint. draw. = winter drawdown to hinder growth of perennials.
reseed. = wild rice reseeding usually used in conjunction with aforementioned management strategie(s).

[f]Potential nuisance wildlife abbreviations:
beav = beaver problems
carp = carp present
cray = crayfish present
black = blackbirds present in July and August
musk = muskrat present

Table 3. 1985 Wild Rice Survey Areas in Northwest Wisconsin.

Name of Waterbody	Part of county[a]	Nearest town	Legal description	Public access	Size of Waterbody in hectares (acres)	Mean depth in meters (feet)	Name of Drainage system
Barron County							
Bear Lk.	NC	Haugen	T36,37N, R11,12W, S 1, 2, 11, 12, 33, 34, 3, 4, 7	Yes	550.0 (1358.0)	3.0 (10.0)	Bear Creek
Beaver Dam Lk.	NW	Cumberland	T35,36N, R13,14W, S 5, 6, 7, 8, 26, 27, 35, 36, 1	Yes	450.0 (1112.0)	2.4 (8.0)	Hay River
Lower Vermillion L.	NW	Cumberland	T35N R13W S 15, 16, 22	Yes	84.1 (207.7)	4.6 (15.0)	Vermillion River
Red Cedar Lk.	NE	Birchwood	T36N R10W S 2, 3, 10, 11, 15, 22, 27	Yes	745.1 (1841.0)	6.1 (20.0)	Red Cedar River
Rice Lk.	EC	Rice Lake	T35N R11W S 9, 10, 15, 16, 21, 22, 27, 28	Yes	379.9 (938.7)	3.0 (10.0)	Red Cedar River
Rice Lk.	EC	Cameron	T34N R11W S 22	Yes	3.2 (8.0)	1.2 (4.0)	Chetek River
Stump Lk.	EC	Rice Lake	T35N R11W S 4, 9	Yes	52.3 (129.3)	1.2 (4.0)	Red Cedar River
Tuscobia Lk.	NE	Rice Lake	T35,36N R11W S 28, 29, 32, 33, 4, 5, 8, 9	Yes	77.0 (190.3)	3.0 (10.0)	Red Cedar River
Vermillion R.	SW	Poskins	T34,35N R13W	Yes	16.2 (40.0)	.4 (1.0)	Vermillion River
Burnett County							
Bashaw Lk.	SE	Hertel	T38N, R14N S 18, 19	Yes	69.2 (171.0)	2.4 (8.0)	Bashaw Brook
Big Island	NW	Danberry	T42N, R15W S 33, 34	Yes	3.6 (9.0)	0.7 (2.0)	St. Croix River
Big Sand Lk.	SE	Hertel	T38,39N R15W S 27, 28, 29, 32, 33, 34	Yes	566.6 (1400.0)	4.6 (15.0)	Yellow River
Bradshaw Sl.	NW	Danberry	T41N R15W S 19	Yes	4.0 (10.0)	3.0 (10.0)	Loon Creek

Table 3. Continued.

Name of Waterbody	Part of county [a]	Nearest town	Legal description	Public access	Size of Waterbody in hectares (acres)	Mean depth in meters (feet)	Name of Drainage system
Briggs Lk.	NE	Webb Lake	T41N R15W S 28, 29	Yes	22.3 (55.0)	1.2 (4.0)	Namekagon River
Clam River Fl.	NW	Webster	T40N R17,18W, S 13, 19, 24, 30	Yes	145.3 (351.0)	1.7 (5.0)	Clam River
Clam Lk.	SC	Siren	T38N R16W S 2, 3, 10, 11, 14, 15	Yes	492.9 (1218.0)	1.7 (5.0)	Clam River
Duckshot Lk.	SE	Siren	T38N R16W S 28	No	3.2 (8.0)	1.0 (3.0)	Landlocked
Gaslyn Lk.	EC	Hertel	T39,40N R14W S 4, 5, 32, 33	Yes	66.4 (164.0)	1.7 (5.0)	Yellow River
Gull Lk.	NW	Danberry	T40,41N, R15, 16W, S 1, 2, 31, 36	Yes	73.7 (182.0)	2.3 (7.0)	Loon Creek
Hanscom Lk.	EL	Webb Lake	T40N R14W S 6	Yes	51.4 (127.0)	1.7 (5.0)	Landlocked
Jackson Lk.	SE	Hertel	T39N R15W S 29	No	6.9 (17.0)	3.0 (10.0)	Yellow River
Kent Lk.	SE	Indian Creek	T38N R15W S 20	No	12.5 (31.0)	1.7 (5.0)	Kent Creek
Lipsett Lk.	SE	Hertel	T39N R14W S 11, 12, 13, 14	Yes	161.1 (378.0)	2.4 (8.0)	Yellow River
Long Lk	SC	Siren	T38N R16W S 16, 17, 20, 21, 28	Yes	128.7 (318.0)	1.7 (5.0)	Clam River
Loon Lk.	EC	Webb Lake	T40N R15W S 1, 11, 12	Yes	124.6 (305.0)	3.0 (10.0)	Loon Creek
Loon Lk.	NW	Danberry	T41N R15,16W S 30, 31, 25, 36	Yes	36.0 (89.0)	1.2 (4.0)	Loon Creek
Lost Lk.	NE	Webb Lake	T41N R14W S 23, 26	No	100.4 (248.2)	1.1 (3.5)	Namekagon River
Lower Clam Lk.	SC	Siren	T39N R16W S 26, 34, 35	Yes	136.4 (337.0)	2.4 (8.0)	Clam River
Mud Lk.	NE	Webb Lake	T40N R16W S 26	No	10.6 (26.2)	1.0 (3.0)	Loon Creek
Mud Lk.	C	Webster	T40N R16W S 26	Yes	66.0 (163.0)	1.2 (4.0)	Landlocked
Mudhen Lk.	SC	Siren	T38N R17W S 16, 17	Yes	222.5 (563.0)	4.6 (15.0)	N. Fork Wood River
North Lang Lk.	NE	Webb Lake	T40N R15W S 3, 4	Yes	9.8 (24.3)	1.7 (5.0)	Loon Creek

Table 3. Continued.

Name of Waterbody	Part of county[a]	Nearest town	Legal description	Public access	Size of Waterbody in hectares (acres)	Mean depth in meters (feet)	Name of Drainage system
Petersen Lk.	SW	Trade Lake	T37N R18W S 3, 4	No	10.1 (25.0)	1.7 (5.0)	Spirit Creek
Rice Lk.	SW	Trade Lake	T37N R18W S 10	Yes	33.6 (83.0)	2.0 (6.0)	Wood River
Rice Lk.	SE	Hertel	T39N R14W S 10, 14, 15, 22	Yes	116.6 (288.0)	1.7 (5.0)	Yellow River
Rice Lk.	SW	Trade Lake	T37N R18W S 25, 36	No	20.2 (50.0)	1.7 (5.0)	Trade River
Robie Lk.	NW	Danberry	T41N R15W S 19	Yes	12.5 (31.0)	2.3 (7.0)	Loon Creek
Sand Lk.	EC	Webb Lake	T40N R15W S 23, 24, 25, 26, 33, 36	Yes	389.1 (961.5)	6.1 (20.0)	Landlocked
Spencer Lk.	SE	Indian Creek	T38N R15W S 26, 35	Yes	76.1 (188.0)	2.0 (6.0)	North Fork Clam R.
Tabor Lk.	NW	Danberry	T41N R15W S 17, 18, 19	Yes	63.5 (157.0)	4.6 (15.0)	Loon Creek
Unnamed Lk.	SE	Siren	T38N R15W S 36	No	1.2 (3.0)	0.7 (2.0)	Clam River
Webb Cr. (lowersite)	NE	Webb Lake	T41N R14W S 2, 3, 10, 11	Yes	6.9 (17.0)	1.2 (4.0)	Namekagon River
Webb Cr. (uppersite)	NE	Webb Lake	T41N R14W S 9	Yes	6.5 (16.0)	1.0 (3.0)	Namekagon River
Yellow R.	EC	Hertel	T39N R14,15W S 7, 12	Yes	36.4 (90.0)	1.0 (3.0)	Yellow River
Yellow R.	NW	Webster	T40N R16,17W S 7-18	Yes	40.7 (100.0)	1.7 (5.0)	Yellow River
Bayfield County							
Namekagon Lk.	SE	Cable	T43N R6W S 1, 2, 8, 9, 16, 17, 35, 36	Yes	1305.9 (3226.8)	4.0 (12.0)	Namekagon River
Totogatic Lk.	SW	Cable	T43N R8W S 29, 30, 31, 36	Yes	217.3 (537.0)	1.7 (5.0)	Totogatic River
Douglas County							
Allouez Bay	NW	Superior	T48,49N R13W S 28, 29, 33, 34	Yes	380.4 (940.0)	1.2 (4.0)	St. Louis River

Table 3. Continued.

Name of Waterbody	Part of county[a]	Nearest town	Legal description	Public access	Size of Waterbody in hectares (acres)	Mean depth in meters (feet)	Name of Drainage system
Amnicon Lk.	NC	Solon Springs	T46N R14W S 12, 13	Yes	172.4 (426.0)	3.0 (10.0)	Amnicon River
Buffalo Lk.	SC	Wascott	T43N R12W S 35	No	17.1 (42.3)	3.0 (10.0)	Bergen Creek
Eau Claire R.	SE	Gordon	T43N R11W S 4, 5, 6	Yes	59.5 (147.0)	1.7 (5.0)	St. Croix River
Minong F.	SC	Wascott	T42,43N R 12, 13W S 1, 6, 25, 30, 31, 36	Yes	651.5 (1609.9)	2.0 (6.0)	Totogatic River
Mulligan Lk.	SE	Wascott	T43N R11W S 13, 14	Yes	31.2 (77.1)	1.2 (4.0)	Snake Creek
St. Croix R.	SE	Gordon	T44N R11,13W S 1, 6, 7, 18, 19	Yes	54.6 (135.0)	1.0 (3.0)	St. Croix River
Iron County							
E. Turtle Flam F.	C	Springstead	T42N R3E S 35, 36	Yes	60.7 (150.0)	1.7 (5.0)	Chippewa River
L. Turtle F.	SE	Mercer	T42N R3E S 2, 11	Yes	20.2 (50.0)	0.3 (1.0)	Turtle River
Mud Lk.	SE	Manitowish	T42N R4E S 23	Yes	22.3 (55.7)	1.7 (5.0)	Bear River
Rice Lk.	SE	Mercer	T43N R3E S 2, 3, 24, 25, 26	Yes	50.5 (124.8)	2.3 (7.0)	Turtle River
Rice Lk.	SC	Springstead	T41N R3E S 26	No	6.2 (15.3)	1.0 (3.0)	S. Fork Flambeau F.
Polk County							
Apple R.	C	Luck	T34N R15W S 6	Yes	4.0 (10.0)	0.7 (2.0)	St. Croix R.
Balsam Br. C.	SW	Balsam Lk.	T34N R17W S 34	Yes	16.2 (40.0)	0.7 (2.0)	Apple River
Balsam Lk.	SW	Balsam Lk.	T35N R16W S 31	Yes	32.3 (80.0)	2.7 (8.8)	Balsam Br. Creek
Balsam Lk. (stumps)	SW	Balsam Lk.	T34,35N R17W S 11, 12, 55, 33	Yes	36.4 (90.0)	2.3 (7.0)	Balsam Branch Creek
Big Round Lk.	C	Luck	T35N R16W S 11, 12, 13, 14	Yes	410.8 (1015.0)	2.7 (8.0)	Straight River

Table 3. Continued.

Name of Waterbody	Part of county[a]	Nearest town	Legal description	Public access	Size of Waterbody in hectares (acres)	Mean depth in meters (feet)	Name of Drainage system
Fountain Lk.	NW	Frederic	T37N R17W S 21	No	9.7 (24.0)	3.0 (10.0)	Landlocked
Glenton Lk.	C	Milltown	T35N R17W S 20, 21, 28, 29	Yes	51.8 (128.0)	1.0 (3.0)	Glenton Creek
Lake 29	C	Balsam Lk.	T35N R17W S 32, 33	Yes	12.1 (30.0)	2.3 (7.0)	Landlocked
Little Butternut Lk.	NW	Luck	T36N R17W S 29, 32	Yes	76.5 (181.0)	3.0 (10.0)	Butternut Creek
Long Lk.	C	Luck	T36N R16W S 20	Yes	22.3 (55.2)	5.0 (15.0)	Straight River
Lotus Lk.	SW	Centuria	T33N R18W S 15, 16, 21, 22	Yes	92.4 (228.4)	1.7 (5.0)	Horse Creek
Peaslee Lk.	SW	St. Croix Falls	T33N R18W S 4, 10	Yes	40.7 (100.0)	1.7 (5.0)	St. Croix River
Rice Lk.	NW	Eureka Center	T35N R19W S 11	No	1.7 (4.3)	2.7 (9.0)	Landlocked
Rice Lk.	SW	Osceola	T32N R18W S 11, 12	No	39.7 (98.0)	1.5 (4.5)	Rice Creek
Rice Lk.	NW	Frederic	T37N R17W S 17, 18	No	4.9 (12.0)	1.0 (3.0)	Spring Creek
Straight R.	C	Luck	T36N R16W S 20	Yes	6.1 (15.0)	0.5 (1.5)	Fox River
White Ash Lk.	C	Balsam Lake	T34N R16W S 2, 11	Yes	81.4 (200.0)	1.7 (5.0)	Apple River
Price County							
Big Pine Lk.	NE	Park Falls	T41N R3E S 36	No	255.9 (632.4)	1.7 (5.0)	Flambeau River
Blockhouse Lk.	NE	Park Falls	T40N R1E S 10	Yes	97.9 (241.8)	2.0 (6.0)	Flambeau River
Pike Lk.	NE	Park Falls	T39,40N R3,4E S 1, 2, 11, 25, 26, 35, 36	Yes	326.0 (805.5)	3.0 (10.0)	Flambeau R. S. Fork
Squaw Cr.	NE	Park Falls	T39,40N R3,4E S 1, 6, 36	Yes	40.5 (100.0)	1.3 (4.0)	Flambeau R. S. Fork

Table 3. Continued.

Name of Waterbody	Part of county[a]	Nearest town	Legal description	Public access	Size of Waterbody in hectares (acres)	Mean depth in meters (feet)	Name of Drainage system
Rusk County							
Chain Lk.	SW	Bear Lake	T32,33N R8,9W S 1, 2, 11, 12, 31, 35, 36	Yes	189.5 (468.3)	6.0 (20.0)	Swift Creek
Fireside Lk.	SW	Bruce	T33N, R8W S 23, 26, 27	Yes	121.8 (301.8)	3.0 (10.0)	Swift Creek
Island Lk.	SW	Bear Lake	T33N R8W S 20, 21, 28, 29	Yes	214.5 (529.9)	4.5 (15.0)	Swift Creek
McCann Lk.	SW	Bear Lake	T33N R8W S 29	Yes	53.7 (132.7)	4.5 (15.0)	Swift Creek
Potato Cr. F.	SW	Bruce	T33N R8W S 17, 18, 19	Yes	24.3 (60.0)	1.3 (4.0)	Potato Creek
Rea Fl.	EC	Ladysmith	T35,36N R5W S 2, 3, 8, 9, 10, 11, 15, 16	Yes	706.2 (1745.0)	7.5 (25.0)	Flambeau River
Ten Mile Cr.	SW	Bear Lk.	T33N R9W S 30	No	16.2 (40.0)	1.0 (3.0)	Ten Mile Cr.
Sawyer County							
Barket Lk.	SE	Winter	T40N R5W S 29, 30, 31, 32	No	96.4 (238.2)	1.2 (4.0)	Chippewa River
Beverly Lk.	SE	Couderay	T38N R8W S 16	Yes	6.6 (16.2)	3.5 (12.0)	Couderay River
Billy Boy F.	SW	Stone Lake	T39N R8W S 18, 19	Yes	29.9 (74.0)	1.0 (3.0)	Couderay River
Blaisdell Lk.	SE	Winter	T48N R4W S 16, 17, 20	Yes	149.7 (370.0)	1.2 (4.0)	Chippewa River
Blueberry Lk.	NW	New Post	T39N R7W S 4, 9	Yes	113.3 (280.0)	3.5 (12.0)	Landlocked
Callahan Lk.	C	Hayward	T41N R7W S 33, 34	Yes	42.8 (105.8)	4.5 (15.0)	Chief River
Devils Lk.	SE	Couderay	T39N R8W S 23, 26, 27, 35	Yes	76.1 (188.1)	2.3 (7.0)	Couderay River

Table 3. Continued.

Name of Waterbody	Part of county[a]	Nearest town	Legal description	Public access	Size of Waterbody in hectares (acres)	Mean depth in meters (feet)	Name of Drainage system
Ghost Lk.	NE	Hayward	T42N R5,6W S 24, 25, 36	Yes	150.4 (371.7)	2.3 (7.0)	Chippewa River
Lac Courte Oreilles Lk.	NW	Hayward	T39,40N R8,9W S 2, 3, 4, 9, 10, 33, 34, 35	Yes	1953.5 (4827.0)	6.0 (20.0)	Couderay River
Lake Chetac	SW	Birchwood	T37,38N R9W S 5, 8, 9, 17, 18, 19, 20	Yes	777.1 (1920.2)	3.5 (12.0)	Red Cedar River
Lake Chippewa	C	Hayward	T39,40N R 6,7,8W S 1-9, 14-18, 21-25, 31-36	Yes	6191.9 (15,300.0)	2.4 (8.0)	Chippewa River
Little Round Lk.	C	Hayward	T41N R8W S 1, 2, 35, 36	Yes	72.6 (228.7)	3.0 (10.0)	Couderay River
Mud Lk.	C	Hayward	T40N R8W S 29	No	13.0 (32.0)	1.0 (3.0)	Couderay River
Nelson Lk.	NW	Hayward	T42N R9W S 21, 23, 25, 28, 34, 36	Yes	1012.8 (2502.6)	4.5 (15.0)	Totogatic River
Pacawong Lk.	NW	Seeley	T42N R8W S 2, 3	Yes	64.6 (159.6)	1.2 (4.0)	Namekagon River
Phipps F.	NW	Seeley	T41,42N R8,9W S 31, 1, 6	Yes	57.7 (142.6)	3.5 (12.0)	Namekagon River
Smith Lk.	NW	Hawyard	T41N R9W S 3, 49, 10	Yes	130.7 (323.1)	4.5 (15.0)	Namekagon River
Spider Lk.	NW	Seeley	T42N R7W S 14, 15, 22-28, 33, 34	Yes	588.6 (1454.3)	3.0 (10.0)	Chief River
Teal Lk.	C	Clam Lake	T42N R6W S 26-28, 33, 34	Yes	424.5 (1048.9)	3.0 (10.0)	Chippewa River
Tigercat F.	C	Hayward	T41N R7W S 3, 5, 6	Yes	90.4 (224.3)	3.0 (10.0)	Chief River
Taylor County							
Mondeaux F.	NC	Westboro	T33N R1E,1W S 24, 25, 13	Yes	168.4 (416.0)	1.7 (5.0)	Mondeaux River

Table 3. Continued

Name of Waterbody	Part of county[a]	Nearest town	Legal description	Public access	Size of Waterbody in hectares (acres)	Mean depth in meters (feet)	Name of Drainage system
Washburn County							
Balsam Lk.	SW	Birchwood	T37N R10W S 26, 27, 34, 25	Yes	119.5 (295.2)	6.0 (20.0)	Red Cedar River
Dilly Lk.	C	Spooner	T39N R11W S 17, 18	Yes	29.9 (74.0)	1.7 (5.0)	Namekagon River
Gilmore Lk.	NW	Minong	T42N R12W S 8, 9, 17, 20	Yes	157.4 (389.0)	4.5 (15.0)	Totogatic River
Kekegama Lk.	SC	Sarona	T37N R12W S 23, 26, 35	Yes	44.4 (109.7)	3.5 (12.0)	Bear Creek
Little Mud Lk.	SC	Sarona	T37N R11W S 1, 12	No	28.6 (70.7)	1.7 (5.0)	Brill River
Long Lk.	SC	Sarona	T38N R10,11W S 16, 17, 19, 20	Yes	1331.3 (3289.7)	6.0 (20.0)	Brill River
Mud Lk.	EC	Springbrook	T40N R10W S 21	No	27.7 (53.5)	1.7 (5.0)	Namekagon River
Mud Lk.	SC	Sarona	T38N R10W S 30, 31, 36	Yes	41.6 (102.7)	2.4 (8.0)	Brill River
Nancy Lk.	NW	Minong	T42N R13W S 27, 28, 33	Yes	312.4 (772.0)	3.0 (10.0)	Totogatic River
Potato Lk.	EC	Stone Lk.	T39N R11W S 36	Yes	90.0 (222.3)	3.0 (10.0)	Namekagon River
Rice Lk.	NW	Minong	T42N R12W S 9, 16	No	53.6 (132.4)	1.7 (5.0)	Namekagon River
Spring Lk.	C	Trego	T39N R11W S 7	No	32.4 (80.0)	2.4 (8.0)	Venzie Creek
Spring Lk.	SE	Stone Lake	T39N R10W S 25, 35, 36	Yes	16.8 (41.5)	2.4 (8.0)	Landlocked
Spring Lk.	C	Springbrook	T40N R11W S 25, 26	Yes	85.4 (211.0)	3.5 (12.0)	Landlocked
Spring Lk.	NW	Minong	T42N R13W S 16, 17	Yes	21.7 (53.6)	1.0 (3.0)	Namekagon River
Tranus Lk.	NC	Springbrook	T41N R10W S 19, 30	Yes	70.9 (174.7)	1.7 (5.0)	Tranus Creek
Trego Lk.	C	Trego	T40N R12W S 34, 35	Yes	186.2 (461.0)	3.2 (10.5)	Namekagon River

Table 3. Continued.

Name of Waterbody	Part of county[a]	Nearest town	Legal description	Public access	Size of Waterbody in hectares (acres)	Mean depth in meters (feet)	Name of Drainage system
Whalen Lk.	C	Trego	T40N R12W S 23, 24	Yes	34.0 (83.9)	3.0 (10.0)	Namekagon River
Yellow River	C	Spooner	T38, 39N R12W S 32, 33	Yes	6.1 (15.0)	1.0 (3.0)	Yellow River

[a]NE = northeast
NW = northwest
NC = northcentral
SE = southeast
SW = southwest
SC = south central
WC = west central
EC = east central
CN = central

APPENDIX B

Wild Rice Survey Form

INSTRUCTIONS

1. Fill in the appropriate blank(s) marked with an asterisk (i.e. Name of Water Body).
2. Check the appropriate blank(s) within each category that do not have corresponding numbers above or below that blank.
3. Circle the corresponding number above the appropriate blank(s) within each category. If the numbers occur below the blanks (for wild rice beds and purple loosestrife stands), circle the appropriate number and estimate the acres of each bed or stand within the appropriate size class.
4. Fill out the categories, "other wildlife species" and "additional comments" when necessary.
5. Place the number of points acquired for each category to the right of the page marked under POINTS.
6. Subtotal the points for each section and place this value to the right of the page above the appropriate blank (i.e. subtotal points for wild rice bed characteristics).
7. Total the points for each section and place this value to the right of the last page marked total points =.
8. Prorate the total points for each rice bed by using the formula on the last page under total points.
9. Total possible points for this survey scheme is 195 points.
10. The County Surface Water Resource Books (available at area DNR offices) will usually contain the following information for these survey forms: mean depth, size of water body, approximate dimensions of water body, percent of water body <5 feet deep, water body subject to winter freeze out, major water source, drainage type, drainage system and type of water control structure(s).

40

GREAT LAKES INDIAN FISH & WILDLIFE COMMISSION

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

Wisconsin Wild Rice Survey Form

*Name of Water Body _____

Location:

*County _____

Part of County NE ____ NW ____ NC ____ SE ____ SW ____ SC ____

WC ____ EC ____ Central ____

*Nearest Town _____

*T _____, R _____, S _____

*Surveyor Name(s) _____

*Agency or Affiliation _____

*Date (month/day/year) _____

*Surveying Time (military time) _____

*Point of Entry _____
(Hwy, road, etc.)

Sampled by: motor boat ____ canoe ____ foot ____

*Public Access: Number of access roads _____ Number of boat landings _____

Wild Rice Bed Characteristics

Points

Average size of rice bed (1 acre = 70 x 70 yds.), estimate acres of bed within size class

<2 acres _____ (3), 2 - 5 acres _____ (6), 5 - 10 acres _____ (9),

10 - 20 acres _____ (12), 20 - 40 acres _____ (15), >40 acres _____ (18) _____

*Approximate Dimensions (yards): Length _____ Width _____

Approximate Stand Density (percent water coverage):

Sparse - (<33%)	5
Medium - (33 - 66%)	10
Dense - (>66%)	15
*Average number of plants/m^2	_____
*Average number of tillers/plant	_____ _____

Subtotal points for wild rice bed characteristics _____

Water Body Characteristics

Type of Water:

Lake 3, Flowage or Impoundment 2, River or Stream 1

*Depth (feet): Mean _____ Maximum _____

*Size (acres): _____

*Appropriate Dimensions (miles): Length _____ Width _____

Percent of water body <5 feet deep:

<10% 3, 10 - 25% 6, 25 - 50% 9,

50 - 75% 12, >75% 15

*Percent of water body <5 feet deep covered by wild rice beds: _____

Is water body subject to winter freeze out?:

No 1, Occasionally 2, Commonly 3

Shoreline Types (percent coverage):

	0%	1 - 10%	10 - 25%	25 - 50%	50 - 75%	>75%
Agriculture:	1.5	1.0	0.5	0.5	0.0	0.0
*Type(s) _____						
Wetland:						
Marsh (nonwoody vegetation)		1.5	2.0	2.5	3.0	3.5
Swamp (woody vegetation)		1.5	2.0	2.5	3.0	3.5
Bog	1.5	1.0	1.0	0.5	0.5	0.0
Hardwoods		1.5	2.0	2.5	3.0	3.5
Upland:						
Mixed Hardwoods		2.5	3.0	3.5	4.0	4.5
Aspen		2.5	3.0	3.5	4.0	4.5
Pine		2.5	3.0	3.5	4.0	4.5
Pine/Hardwoods		2.5	3.0	3.5	4.0	4.5
Open Meadows		2.5	3.0	3.5	4.0	4.5
Development:						
Campgrounds	2.0	1.5	1.5	1.0	1.0	0.5
Houses or cottages	2.0	1.5	1.0	1.0	0.5	0.5
Industry	1.5	1.0	0.5	0.5	0.0	0.0
*Type(s) _____						

Bottom types of water area <5 feet deep (percent coverage):

	10%	10 - 25%	25 - 50%	50 - 75%	75 - 95%	95 - 100%
Silt or muck	13.0	13.5	14.0	14.5	15.0	33.0
Clay	10.0	10.5	11.0	11.5	12.0	27.0
Marl	9.0	9.5	10.0	10.5	11.0	25.0
Detritus	6.0	6.5	7.0	7.5	8.0	
Sand	5.0	4.5	4.0	3.5	3.0	
Gravel	2.0	1.5	1.0	0.5	0.0	
Rock or Boulder	1.5	1.0	0.5	0.0	0.0	

Major Water Source: Runoff 1, Seepage 2, Spring 3, Inlet or stream 4

Drainage Type: Seepage 1, Outlet or stream 2

Inlet(s): *Number _____, Name(s) _____

*Average width (feet) _____, Average depth (feet) _____

Outlet(s): *Number _____, Name(s) _____

*Average width (feet) _____, Average depth (feet) _____

Drainage System _____

Pollution? (Any noticeable occurrances): Yes 1, No 5

*Potential Source(s) _____

Water Control Structure(s): Yes 2, No 1

*Type _____

*Purpose _____

*Height (feet) _____

*Owner (possible) _____

pH reading: _____ Within range: 6.8 - 8.8 2, Outside range 1

Conductivity reading: _____ Within range: 60 - 370 2, Outside range 1

Subtotal points for water body characteristics

Vegetation

Emergent vegetation (besides wild rice) in water <5 feet deep (percent coverage):

<10% 15, 10 - 25% 12, 25 - 50% 9, 50 - 75% 6, >75% 3

Emergent vegetation (besides wild rice) composition (percent):

Type	<10%	10 - 25%	25 - 50%	50 - 75%	>75%

Floating vegetation (waterlily, etc.) in water <5 feet deep (percent coverage):

<10% 15, 10 - 25% 12, 25 - 50% 9, 50 - 75% 6, >75% 3

*Floating vegetation composition (percent):

Type	<10%	10 - 25%	25 - 50%	50 - 75%	>75%

Submergent vegetation in water <5 feet deep (percent coverage):

<10% 15, 10 - 25% 12, 25 - 50% 9, 50 - 75% 6, <75% 3

*Submergent vegetation composition (percent):

Type	<10%	10 - 25%	25 - 50%	50 - 75%	>75%

Algae (planktonic) in water <5 feet deep (percent coverage):

<10% 5, 10 - 25% 4, 25 - 50% 3, 50 - 75% 2, >75% 1

Purple loosestrife: Yes _____, No 6

Size of stand, estimate acres within size class:

<2 acres _____ (2.5), 2 - 5 acres _____ (2.0), 5 - 10 acres _____ (1.5),

10 - 20 acres _____ (1.0), 20 - 40 acres _____ (0.5), >40 acres _____ (0.0)

Distance from closest rice bed (yards):

<10 yds 0.0, 10 - 50 yds 0.5, 50 - 100 yds 1.0,

100 - 250 yds 1.5, 250 - 440 yds 2.0, >440 yds 2.5

Subtotal points for vegetation _____

Wildlife

Beaver: Yes 1, No 2 _____

Beaver Dam(s) Control Depth: Yes 1, No 3 _____

Carp: None 4, Present 3, Common 2, Abundant 1 _____

Crayfish: Scarce 3, Common 2, Abundant 1 _____

Blackbirds in July and August: Scarce 3, Common 2, Abundant 1 _____

*Waterfowl Species and Number:

Species	Number	Brood Size(s)

Muskrat: Yes 1, No 2 _____

*Muskrat Houses: Number _____

Other Species:

Subtotal points for wildlife _____

Comments:

Total Possible Points = 195

Total Points = _____

APPENDIX C

Wild Rice Acreage in Each Water Body Surveyed

Northwest Wisconsin Wild Rice Survey Areas

Barron County

Bear Creek - T 36 N R 11 W, T 36 N R 12 W 2 acres-dense

Bear Lake 72 acres-dense

Beaver Dam Lake no rice

Lower Vermillion Lake no rice

Red Cedar Lake no rice

Rice Creek sparse, less than ¼ acre

Rice Lake no rice

Stump Lake less than 1 acre-sparse

Tuscobia Lake 1 acre-sparse

Vermillion River - T 34 N R 13 W, T 35 N R 13 W No wild rice, however, a tributary, Sweeney Creek and Sweeney Creek Flowage has dense rice. 25 acres-dense

Burnett County

Bashaw Lake 25 acres-dense

Big Island, St. Croix River - T 42 N R 15 W 2 acres-dense

Big Sand Lake no rice

Bradshaw Slough 6 acres-sparse

Briggs Lake 33 acres-dense

Clam Flowage - T 40 N R 17 W 55 acres-dense

Clam Lake - (Big Clam Lake or Upper Clam Lake) 200 acres-dense

Duckshot Lake - T 38 N R 16 W South of Long Lake 5 acres-dense

Gaslyn Lake 60 acres-dense

Gull Lake 25 acres-medium

Hanscom Lake no rice

Jackson Lake - T 39 N R 15 W NE of Big Sand Lake 1.5 acres-dense

Burnett County cont'd

Kent Lake 10 acres-dense

Lipsett Lake 3 acres-sparse

Long Creek - T 38 N R 16 W 140 acres-sparse

2 Loon Lakes - T 41 N R 14 W no rice
T 41 N R 16 W 55 acres-medium

Lost Lake no rice

Lower Clam Lake no rice

2 Med Lakes - T 40 N R 16 W 20 acres-dense
T 41 N R 15 W 70 acres-sparse

Mudhen Lake 20 acres-dense

North Long Lake 9 acres-dense

Peterson Lake - T 37 N R 18 W, South of Wood Lake 6 acres-sparse

3 Rice Lakes - 2 in T 37 N R 18 W, S10-30 acres-dense S25,26-15 acres-medium
1 in T 39 N R 14 W, 6 acres-sparse

Robie Lake no rice

Sand Lake no rice

Spencer Lake 15 acres-dense

Tabor Lake no rice

Trade Lake no rice

Unnamed Lake - T 38 N R 15 W S36, SE of Spencer Lake 1.3 acres-dense

2 Unnamed Lakes - T 39 N R 15 W S29, NE of Big Sand Lake no rice

Webb Creek - T 41 N R 14 W 12 acres-dense

Webb Lake no rice

Yellow River - T 39 N R 14 W 42 acre-dense
T 40 N R 16 W 3 acres-medium

Iron County

Big Pine Lake no rice

Iron County cont'd

2 Rice Lakes - T 41 N R 3 E, less than 1 acre-sparse
T 43 N R 3 E no rice

Mudd Lake 15 acres-sparse

Polk County

Balsam Branch Creek - T 34 N R 17 W, T 33 N R 17 W 4 acres-sparse

Balsam Lake no rice

Big Round Lake 1.5 acres-dense

Fountain Lake no rice

Glenton Lake less than 1 acre-sparse

Little Butternut 15 acres-medium

Long Lake no rice

Lotus Lake - (East Lake) 2 acres-sparse

5 Rice Lakes - T 32 N R 18 W 70 acres-dense
T 35 N R 19 W no rice
T 33 N R 19 W less than 1 acre-sparse
T 37 N R 17 W 8 acres-dense

Straight River - T 36 N R 16 W no rice

White Ash Lake 30 acres-medium

29th Lake no rice

Price County

Big Pine Lake no rice

Blockhouse Lake 10 acres-dense

Pine Lake no rice

Squaw Creek - T 40 N R 3 E 13 acres-medium

Rusk County

Chain Lake 7 acres-medium

Fireside Lake 12 acres-dense

Island Lake no rice

Rusk County cont'd

Mc Cann Lake 2 acres-sparse

Potato Creek Flowage - T 33 N R 8 W 15 acres-dense

Rea Flowage - T 35 N R 5 W 1 acre-sparse

Ten Mile Creek - T 33 N R 9 W 4 acres-sparse

Sawyer County

Barker Lake 74 acres- medium

Beverly Lake no rice

Billy Boy Lake 22 acres-dense

Blaisdell Lake 19 acres-medium

Blueberry Lake no rice

Callahan Lake no rice

Devils Lake no rice

Ghost Lake no rice

Lac Courte Oreilles Lake 2 acres-sparse

Lake Chetac 2 acres-dense

Lake Chippewa no rice

Little Round Lake no rice

Nelson Lake no rice

Pacwawong Lake 100a.c.-dense!

Phipps Flowage - (Namekagon Flowage) 11 acres-dense T 41 N R 9 W
T 41 N R 8 W
T 42 N R 8 W

Rice Lake no rice

2 Smith Lakes - T 42 N R 7 W, T 41 N R 9 W no rice (both)

Spider Lake no rice

Teal Lake no rice

Unnamed Lake - SE of Grindstone Lake T 40 N R 8 W S29 9 acres-sparse

Sawyer County cont'd

Unnamed Lake - South of Tyner Lake T 40 N R 7 W S32 no rice

Upper Twin Lake no rice

Taylor County

Mondeaux Flowage 12 acres-medium

Washburn County

Balsam Lake 2 acres-medium

Bear Creek-T 37 N R 12 W 2 acres-dense

Bear Lake 72 ac. - dense (Barron Co.)

Dilly Lake 30 acres-dense

Gilmore Lake 2 acres-sparse

Kekegama Lake 3 acres-medium

Little Mud Lake 30 acres-dense

Long Lake - T 37 N R 11 W T 38 N R 11 W 50 acres-dense

2 Mud Lakes - T 38 N R 10 W 11 acres-dense
T 42 N R 13 W no rice

Nancy Lake no rice

Potato Lake 30 acres-dense

Rice Lake 49 acres-dense

2 Spring Lakes - T 42 N R 13 W 30 acres-dense
T 39 N R 11 W less than 1 acre-sparse

Tranus Lake 100 acres-sparse

Trego Lake 7 acres-dense

Whalen Lake 2 acres-medium

Yellow River - T 38 N R 12 W T 39 N R 12 W 9 acres-dense

Additional Northwest Wisconsin Lakes

Douglas County

Allouez Bay	no rice	
Amnicon Lake	no rice	
Brule River	T43N R11W	no rice
Buffalo Lake	no rice	
Minong Flowage	20 acres - medium	
Mulligan Lake	20 acres - sparce	
St. Croix River	T44N R11W, T44N R12W	no rice
St. Louis River	T48N R14W, T48N R15W T49N R14W, T49N R15W	35 acres - dense

1985 Northeast Wisconsin Wild Rice Acerage

Forest County	
Atkins Lake T37N R12E Sec 30	150 acres
Little Rice Lake T36N R12E Sec 17	22 acres
Wabikon Lake T36N R14E Sec 32	25 acres
Lincoln County	
Alice Lake T35N R7E Sec 27	38 acres
Langlade County	
Elcho Lake T34N R11E Sec 29	28 acres
Oneida County	
Gary Lake T36N R7E Sec 19	35 acres
Goodyear Lake T37N R7E Sec 26	7 acres
Little Rice Lake T38N R10E Sec 5	23 acres
Moen Lake T37N R4E Sec 25	<1 acre
Oneida Lake T36N R7E Sec 4	4 acres
Skunk Lake T38N R5E Sec 34	9 acres
Rice Lake T39N R10E Sec 34	118 acres
Spur Lake T37N R11E Sec 6	110 acres
Thunder Lake T38N R10E Sec 11	2 acres
Thoroughfare T38N R11E Sec 23	140 acres
Vilas County	
Allequash Lake T41N R7E Sec 16	95 acres
Amik Lake T40N R4E Sec 19	<1 acre
Aurora Lake T41N R8E Sec 19	37 acres
Emil Lake T42N R9E Sec 10	<1 acre
Dad Lake T41N R9E Sec 31	<1 acre
Devine Lake T40N R6E Sec 3	31 acres
Frost Lake T40N R9E Sec 11	50 acres
Irving Lake T41N R8E Sec 2	128 acres
Little Portage Lake T42N R10E Sec 9	50 acres
Little Rice Lake T42N R7E Sec 16	34 acres
Mickeys Mud Lake T41N R9E Sec 35	<1 acre
Nixon Lake T42N R8E Sec 19	16 acres
Partridge Lake T42N R8G Sec 29	53 acres
Plum Lake (West) T41N R8E Sec 31	40 acres
Rice Lake T40N R9E Sec 14	42 acres
Round Lake T43N R6G Sec 26	13 acres
Sugarbush Lake (Mid) T41N R5E Sec 17	15 acres
Wild Rice Lake T41N R6E Sec 6	7 acres