ENVIRONMENTAL REPORT SUPPLEMENT

PART 1

NORTHERN STATES POWER COMPANY

MONTICELLO NUCLEAR GENERATING PLANT

MONTICELLO, MINNESOTA

NSP 1992

security fence is covered predominantly by existing facilities, gravel, or pavement. The area outside the security fence, between the security and outer MNGP property fences, is referred to for purposes of this report as the exclusion zone. The exclusion zone is approximately 60 percent open fields and 40 percent woodland. The open fields are predominantly old agricultural fields that have been allowed to revert to grasses and weeds. Aerial photos indicate that a portion of the land outside and near the inner plant security fence was disturbed during the original construction of MNGP so that no native vegetation remains, with the exception of a small tract of prairie grasses planted along the plant entrance road. Existing vegetation in the exclusion zone consists of brome and quack grasses associated with milkweed, mullein, and similar early succession forbs. The upland woodlands are predominantly northern pin oak, red ash, basswood, and prickly ash. Bottomland wetlands along the northeast bank of the river and on the river islands are predominantly American elm, box elder, silver maple, cottonwood, and black willow (personal communication with D. J. Orr, Senior Biologist, Northern States Power Company, September 10, 1991).

2.3.2

White-tailed deer have been observed crossing the site and are relatively common in the adjacent woodlands. Other common mammals include grey squirrel, cotton-tailed and jack rabbit, raccoon, red fox, and grassland rodents. Waterfowl use is limited to use of the river shoreline for nesting and loafing by Canada geese, mallards, and wood ducks. Other bird species present include the grassland/woodland transition species common throughout the area such as meadowlark, robin, blue jay, eastern bluebird, flicker, red-tailed hawk, and kestrel (personal communication with D. J. Orr, Senior Biologist, Northern States Power Company, September 10, 1991). Based on the Nuclear Regulatory Commission's (NRC) criteria for determining "important" species, several of these species can be considered important from a recreational (hunting) perspective. Threatened and endangered species potentially in the vicinity of MNGP are discussed in Section 2.11.

NSP's plans for refurbishment are described in Chapter 1. No major refurbishment activities are required or proposed for the renewal period that would extend the requirements for laydown areas and other land uses, including current access roads and transmission corridors, beyond those employed during prior major maintenance outages. In those outages, all activities were restricted to the inner plant security fenced area, with the exception of the construction of a temporary storage facility in 1984 for the replaced low-pressure turbine rotor. Future maintenance or modification activities would be similarly confined. Disturbance of additional lands in the exclusion zone will not occur. Therefore, the effects of refurbishment activities on important plant and animal habitats are well within the bounding criteria for this Category 2 issue as set forth in Draft Regulatory Guide DG-4002 (NRC, 1991b) and the draft Generic Environmental Impact Statement for License Renewal of Nuclear Plants (NRC, 1991a).

2.5 EFFECTS OF REFURBISHMENT ON SURFACE WATER QUALITY

As noted in Chapter 1, MNGP requires no major refurbishment or other activities involving significant construction either in preparation for or during the license renewal period. There are no plans to build any new facilities or access roads or to clear any land for additional parking or laydown areas. Thus, no impacts to surface-water resources in the vicinity of MNGP resulting from new construction or refurbishment activities are anticipated.

NSP 1992J

ENVIRONMENTAL REPORT SUPPLEMENT

PART 2

NORTHERN STATES POWER COMPANY

MONTICELLO NUCLEAR GENERATING PLANT

MONTICELLO, MINNESOTA

PARTIAL FINAL DRAFT

12/03/92

of phytoplankton in all seasons, but green and blue-green algae become increasingly important in summer (NUS, 1975). Zooplankton production in the river is limited and the zooplankton community structure is unstable because of daily and seasonal variation in river flows and water chemistry. Zooplankton that are present probably originate in upstream areas of reduced flow (e.g., sloughs, side arms, bays).

2.2.1.2 Fish Communities

The Mississippi River in the MNGP vicinity supports a diverse fish community, with more than 40 species collected by NSP biologists since 1976 (NSP, 1989). The major sport fish species collected during routine seining and electrofishing surveys is the smallmouth bass (*Micropterus dolomieu*), which is restricted to portions of the river that provide adequate cover and suitable temperature and flow regimes. Nongame species dominate NSP collections both in number and biomass. A number of cyprinid species including spotfin shiner (*Notropis spilopterus*), sand shiner (*Notropis stramineus*), and bluntnose minnow (*Pimephales notatus*) have been abundant in near-shore seine samples and are probably the major forage species in this section of the river. The common carp (*Cyprinus carpio*) and three catastomid species - shorthead redhorse (*Moxostoma macrolepidotum*), silver redhorse (*Moxostoma anisurum*), and northern hogsucker (*Hypentelium nigricans*) - represent the species most commonly collected by electrofishing in deeper water and portions of the river farther from shore. The fish community can be characterized as a cool-water fishery, with an assemblage of species that is intermediate in thermal preferences between the coldwater salmonid communities and the warmwater centrarchid communities.

No threatened, endangered, or special-concern species of fish or shellfish are known to occur in the Mississippi River in the MNGP vicinity (Eliason, 1991; Lewis, 1991). Chapter 5 contains detailed information on fish populations in the river in the MNGP vicinity and discusses possible impacts of plant operations on fish and aquatic invertebrates. Appendix B contains a list of species collected by seining and electrofishing techniques.

2.2.2 TERRESTRIAL RESOURCES

NSP has conducted terrestrial studies at its Sherburne County Generating Plant site approximately 5 miles upstream of MNGP. Information on terrestrial resources in the MNGP area was supplied primarily from the annual reports of the Sherburne County Generating Plant Environmental Monitoring and Ecological Studies Program; NSP believes the two plant sites are sufficiently similar to permit valid comparisons (AEC, 1972). In addition, recent data from the MDNR serve as part of the bases for this update.

The Sherburne County Generating Plant Environmental Monitoring and Ecological Studies Program involves a variety of terrestrial monitoring programs, including avian, vegetation, and mammal population studies at various intervals from 1974 through 1984. The avian environmental monitoring program utilized two methodologies: linear transects and study areas for population data. Vegetation inventories were conducted both on and off the Sherburne County site, including three sites in the vicinity of MNGP. Indices of mammal abundance came from winter surveys of study areas and transects and from observations recorded during roadside bird counts.

In accordance with the Radiological Environmental Monitoring Program, annual surveys are conducted to identify residences, milk animals, and gardens having areas of 500 square feet or greater with leafy green vegetables nearest to MNGP in each of the 16 meteorological sectors. The 1991 Land Use Census at MNGP (NSP, 1991b) identified 33 dairy farms and 51 gardens within a 5-mile radius. Land use survey maps, field data forms, interviews with people having dairy animals and gardens, and visual observations are utilized to complete these surveys.

This section addresses the terrestrial communities of vegetation, birds, and mammals representative of the affected environment at MNGP. In addition, it describes endangered and threatened species in the area. Complementary information on important plant and animal species and on threatened and endangered species is provided in Sections 2.4 and 2.11, respectively, of Part 1.

2.2.2.1 Vegetation

The Monticello site is located in the City of Monticello, Minnesota. Despite the growth of the city, the area has remained predominantly rural and agricultural. Because a large portion of the area is cultivated fields, most wildlife resources are concentrated in field borders or in forested or marsh/wetland habitats, which comprise 19.24 percent of the area (Wright County Planning Commission, 1988). In both Wright County and Sherburne County, which is immediately across the Mississippi River to the northeast, about 68 percent of the land is used for farming. The principal crops in these two counties remain soybeans, corn, oats, and hay (Minnesota Council of Economic Advisors, 1991), as they were when the plant was first constructed (AEC, 1972).

Significant natural areas in the MNGP vicinity include the Sherburne National Wildlife Refuge, about 9 miles northeast to 12 miles north; Lake Maria State Park, about 6 miles west-southwest; and Sand Dunes State Forest and Campground, about 7 miles northeast (AEC, 1972).

In 1931, vegetation in the Monticello area was described as supporting a climax deciduous forest. Farming has removed large portions of this woodland habitat. Remnants of the native climax hardwood forest of maple, basswood, elm, oak, and hackberry occur on the larger point bar islands of the Mississippi River, with some smaller stands in isolated pockets along the river bank (AEC, 1972). More recent vegetation information specific to the exclusion zone (the area between the inner plant security fence and the outer MNGP property fence) is contained in Section 2.4 of Part 1.

In 1983 and 1984, NSP conducted offsite vegetation inventories as part of the Sherburne County Generating Plant Environmental Monitoring and Ecological Studies Program to evaluate a cross-section of forest community types along the Mississippi River between the Sherburne County Generating Plant and the City of Monticello. Of the four areas studied, three were within 2 miles of MNGP; these were Tarzan Elms and Montissippi Park in Wright County and Big Oaks Park across the river in Sherburne County.

Tarzan Elms, about 2 miles upstream from MNGP on the southwest side of the river, consists of rich, wet-mesic hardwood forest dominated by red oak and ironwood. Basswood and green ash are the dominant tree species in Montissippi Park, sited in rich lowland woods about 1 mile downstream from MNGP. Both Montissippi Park and Tarzan Elms contain species of flora

unique to the area. These include herbaceous species such as trillium, jack-in-the-pulpit, and dogtooth violet; ironwood and basswood tree species; and many others indicative of a rich mesic forest habitat. Big Oaks Park is about 1 mile downstream from MNGP on the opposite side of the river. It is an upland site with somewhat dry soil, dominated by bur-oak and American elm tree species. The effects of dutch elm disease are evident in the American elm population at all three sites. Vegetation surveys were conducted at these three locations from 1974 to 1979, 1980, 1982, and 1984. During the 7-year period, there has been an overall trend toward increasing native plants and decreasing weedy species. Montissippi Park contains the highest number of species in the area (100), most of which are herbaceous. Big Oaks Park has the lowest number of species (46), most of which are woody plants. Thorny shrubs dominated these woody species, accounting for 50 to 60 percent of the total ground-layer vegetation. No endangered or threatened species have been reported in these vegetation inventories. Table B-1 groups each plant species identified in the inventories according to its classification as herbaceous or woody (Orr and Sarrappo, 1984; Sarrappo, 1983).

2.2.2.2 Birds

The 1984 report of the Sherburne County Generating Plant Environmental Monitoring and Ecological Studies Program (Orr and Sarrappo, 1984) includes a 10-year summary of birds seen during the breeding season along three road transects and in the floodplain area in the MNGP vicinity. Roadside Transect 2 parallels the Mississippi River starting at Fish Lake to the northwest of MNGP and ending approximately 1 mile southeast. Ninety-nine species of birds were recorded for this transect over the 10-year period, with an average annual sighting of 1,641 individuals. The most abundant species for Road Transect 2 included mourning dove, cliff swallow, barn swallow, robin, starling, vesper sparrow, red-winged blackbird, grackle, goldfinch, and house sparrow. Information regarding bird species observed in the exclusion zone at MNGP is contained in Section 2.4 of Part 1 of this report supplement.

Information obtained from the MDNR regarding bird hunting in the Monticello area indicates that grouse, pheasant, and partridge are commonly hunted species; grouse and partridge hunting occurs from mid-September through December (daily bag limit of five) and pheasant hunting occurs from mid-October to early December (daily bag limit of two). The most popular type of bird hunting is for migratory birds, including ducks and geese. The migratory waterfowl season in the plant area is from early October to early November, with daily bag limits of three ducks and from late September to mid-November with daily bag limits of two geese. The portion of the Mississippi River proper adjacent to MNGP is not a preferred duck hunting area, nor do migratory waterfowl use it to a significant extent as a resting area (personal communication, T. J. Landwehr, MDNR Wildlife Biologist, January 21, 1992). The preferred waterfowl hunting areas are the lakes and marshes north of MNGP in the vicinity of Sherburne National Wildlife Refuge and several other nearby lakes, most notably Pelican Lake, which lies approximately 7 miles southeast of the site (DOI, 1985; 1988; personal communication, T. J. Landwehr, MDNR Wildlife Biologist, January 21, 1992).

2.2.2.3 Mammals

Animal surveys have not been conducted in the area surrounding MNGP; however, limited studies have been performed as part of the Sherburne County Generating Plant Environmental

Monitoring and Ecological Studies Program. The list of mammals in the Final Environmental Statement (AEC, 1972) included white-tailed deer, red fox, raccoon, red and grey squirrel, short-tailed shrew, red-backed and meadow voles, various species of mice, pocket gopher, white-tailed jack rabbit, beaver, and muskrat. Some additional species including gray fox, coyote, fox squirrel, chipmunk, mink, weasel, woodchuck, and skunk have been reported through the Sherburne County Generating Plant Environmental Monitoring and Ecological Studies Program. Indices of mammal abundance through winter surveys of study areas and transects as well as from observations recorded during roadside bird counts have been obtained through this program. Although the number of observed individuals has varied from year to year, most species have been seen in approximately the same ratio every year. Additional information on mammals observed in the MNGP exclusion zone is contained in Section 2.4 of Part 1.

During contacts for information about the hunting of mammals, the MDNR noted that squirrel was the principal animal hunted in the MNGP area. Other small game species include rabbit and hare, fox, and raccoon (AEC, 1972). The hunting season extends from mid-September through February for squirrel (daily bag limit of 7 combined) and rabbit (daily bag limit of 20 each). Deer hunting in the area is divided into three types of season (bow and arrow, muzzleloader, and shotgun) with a season limit of one deer per person.

2.2.2.4 Endangered and Threatened Species

The U.S. Fish and Wildlife Service was consulted about the presence of Federally listed threatened and endangered species within 5 miles of MNGP (Lewis, 1991). The bald eagle was noted to be the only Federally listed species that might be present in the area of concern. A biological assessment (Exhibit 3 of Part 1 of this report supplement) provides information on species status and possible impacts from the project.

Recent correspondence with the MDNR provided information on state-listed threatened and endangered plant and animal species in the MNGP vicinity (Eliason, 1991). The Minnesota Natural Heritage Program indicates the presence of one threatened bird species, loggerhead shrike, and one threatened reptile, Blanding's turtle, within a 5-mile radius of MNGP. In addition to these animal species, the MDNR Natural Heritage Program lists two locations of threatened dry-sand-Savannah-oak vegetative communities in the MNGP vicinity. Information provided by MDNR and D. Orr (biologist, NSP) indicated that trumpeter swans use the river near MNGP. While the trumpeter swan is not a Federally listed species in Minnesota, and MDNR lists it as extirpated from the state, it was included in the biological assessment because reintroduction efforts have been started by the state and the species may be listed in the future. Information on the state and Federally endangered peregrine falcon, while not requested by the U.S. Fish and Wildlife Service, was also included in the biological assessment because of its known use of the river and continuing efforts by NSP to establish a nesting pair at the Sherburne County Generating Plant, 5 miles upstream of MNGP. Additional information regarding these threatened and endangered species is contained in Section 2.11 of Part 1.

APPENDIX B

Biological Resources

Table B-1.Scientific and Common Names of Plants Inventoried in Monticello Plant Area

Table B-2.Scientific and Common Names of Fish Collected by Seining and Electrofishing Techniques in Monticello Plant Area

Table B-1.Scientific and Common Names of Plants Inventoried in Monticello Plant Area	
Scientific Name [a]	Common Name
HERBS	
Achillea millefolium[1]	Yarrow
Actaea rubra	Red baneberry
Agropyron repens	Quack grass
Ambrosia artemesiifolia	Ragweed
Amphicarpa bracteata	Hog-peanut
Anemone canadensis	Canada anemone
Anemone patens	Pasque flower
A. quinquefolia	Wood anemone
Aquilegia canadensis	Columbine
Arisaema triphyllum	Woodland Jack-in-the-pulpit
Aristida basiramea	Three-awn grass
Asarum canadense	Wild ginger
Asclepias syriaca	Common milkweed
A. tuberosa	Butterfly weed
Asparagus officinalis	Asparagus
Aster sp.	Aster
Berteroa incana	Hoary alyssum
Bouteloua sp.	Grama grasses
Bromus sp.	Brome grass
Carex sp.	Sedge
Chenopodium album	Lamb's-quarters
Circaea quadrisulcata	Enchanter's nightshade
Clematis virginiana	Virgin's bower

Conyza canadensis	Horse weed

Table B-1.Scientific and Common Names of Plants Inventoried in Monticello Plant Area (continued)

Scientific Name [a]	Common Name
HERBS	
Crepis capillaris	Smooth hawk's beard
Cryptotaenia canadensis	Honewort
Cynoglossum officinale	Hound's tongue
Desmodium glutinosum	Tick trefoil
Echinocystis lobata	Wild cucumber
Elymus sp.	Wild rye
Epilobium sp.	Willow-herb, fireweed
Equisetum (arvense)	Horsetail, scouring rush
Erigeron sp.	Daisy fleabane
Erythronium sp.	Dog-tooth violet
Eupatorium rugosum	White snakeroot
Festuca sp.	Fescue grass
Fragaria virginiana	Common strawberry
Galium aparine	Cleavers
G. asprellum	Rough bedstraw
G. boreale	Northern bedstraw
G. triflorum	Fragrant bedstraw
Geranium maculatum	Wild geranium
Geum aleppicum	Yellow avens
Geum triflorum	Long-plumed purple avens
Glechoma hederacea	Ground ivy
Hackelia virginiana	Stickseed
Helianthus sp.	Sunflower

Hydrophyllum virginianum	Virginia waterleaf

Table B-1.Scientific and Common Names of Plants Inventoried in Monticello Plant Area (continued)

Scientific Name [a]	Common Name
HERBS	
Impatiens sp.	Touch-me-not
Isopyrum biternatum	False rue anemone
Lactuca canadensis	Wild lettuce
Laportea canadensis	Wood nettle
Leonurus cardiaca	Motherwort
Lilium sp.	Lily
Linaria vulgaris	Butter-and-eggs
Lychnis alba	White campion
Lycopus sp.	Water horehound
Maianthemum canadense	False lily-of-the-valley
Matteuccia struthiopteris	Ostrich fern
Medicago sp.	Medick
Nepeta cataria	Catnip
Osmorhiza claytoni	Sweet cicely
Oxalis stricta	Oxalis
Oxybaphus nyctagineus	Wild four o'clock
Panicum oligosanthes	Switch grass
Phlox divaricata	Phlox
Phryma leptostachya	Lopseed
Physalis sp.	Ground cherry
Plantago sp.	Plantain

Table B-1.Scientific and Common Names of Plants Inventoried in Monticello Plant Area (continued)	
Scientific Name [a]	Common Name
HERBS	
Poa pratensis	Bluegrass
Polygonatum biflorum	Solomon seal
Polygonum convolvulus	Black bindweed
Prenanthes alba	Rattlesnake root
Pycnanthemum virginianum	Mountain mint
Rudbeckia laciniata	Green-headed coneflower
Salsola kali	Russian thistle
Sanguinaria canadensis	Bloodroot
Sanicula marilandica	Black snakeroot
Setaria sp.	Foxtail
Silene cucubalus	Bladder-campion
Sisymbrium altissimum	Tumble mustard
Smilacina racemosa	False Solomon's-seal
S. stellata	Starry false Solomon's-seal
Smilax herbacea	Smilax, Carrion flower
Solanum nigrum	Black nightshade
Solidago sp.	Goldenrod
Sonchus arvensis	Sow thistle
Stellaria sp.	Chickweed
Taraxacum officinale	Common dandelion
Thalictrum dioicum	Early meadow rue
Tradescantia virginiana	Spiderwort
Tragopogon dubius	Goat's beard
Trillium cernuum	Nodding trillium

Table B-1.Scientific and Common Names of Plants Inventoried in Monticello Plant Area (continued)	
Scientific Name [a]	Common Name
HERBS	
Urtica dioica	Stinging nettle
Uvularia perfoliata	Bellwort
Uvularia sessilifolia	Sessile bellwort
Verbascum thapsis	Mullein
Veronicastrum virginicum	Culver's Root
Viola pennsylvanica	Smooth yellow violet
Zizia aurea	Golden Alexanders
WOODY PLANTS	
Acer negundo	Boxelder
A. saccharinum	Silver maple
Amelanchier sanguinea	Serviceberry, Juneberry
Carpinus caroliniana	Blue beech, hornbeam
Celastrus scandens	Bittersweet
Celtis occidentalis	American hackberry
Cornus racemosa	Red-panicle dogwood
C. stolonifera	Red-osier dogwood
Corylus americana	American hazelnut
Euonymus atropurpureus	Burning bush, Wahoo
Fraxinum pennsylvanica	Green ash
Juniperus virginiana	Red cedar
Lonicera tatarica	Honeysuckle
Menispermum canadense	Canada moonseed
Morus rubra	Mulberry

Table B-1.Scientific and Common Names of Plants Inventoried in Monticello Plant Area (continued)	
Scientific Name [a]	Common Name
WOODY PLANTS	
Ostrya virginiana	Ironwood, hop hornbeam
Parthenocissus quinquefolia	Virginia Creeper, woodbine
Populus tremuloides	Trembling aspen
Prunus virginiana	Chokecherry
Pyrus melanocarpa	Black chokeberry
Quercus borealis	Northern red oak
Quercus ellipsoidalis	Northern pin oak
Quercus macrocarpa	Bur-oak
Rhamnus cathartica	Common buckthorn
Rhus glabra	Smooth sumac
R. radicans	Poison ivy
Ribes americanum	American black currant
R. hirtellum	Smooth gooseberry
R. missouriense	Missouri gooseberry
Rosa sp.	Wild rose
Rubus allegheniensis	Blackberry
R. occidentalis	Black raspberry
Sambucus canadensis	Common elderberry
S. pubens	Red elderberry
Smilax hispida	Bristly greenbriar
Symphoricarpos occidentalis	Wolfberry
Tilia americana	American basswood

Table B-1.Scientific and Common Names of Plants Inventoried in Monticello Plant Area (continued)	
Scientific Name [a]	Common Name
WOODY PLANTS	
Ulmus americana	American elm
Ulmus pumila	Siberian elm
Viburnum lentago	Black haw, nannyberry
Vitis riparia	Riverbank grape
Zanthoxylum americanum	Prickly ash

[a]All names taken from Gleason and Cronquist Manual of Vascular Plants (1963).

Table B-2.Scientific and Common Names of Fish Collected by Seining and Electrofishing Techniques in Monticello Plant Area

Common Name	Scientific Name	Method Sampled*
AMIIDAE		
Bowfin	*Amia calva*	E
SALMONIDAE		
Cisco	*Coregonus artedi*	B
ESOCIDAE		
Northern pike	*Esox lucius*	B
Muskellunge	*Esox masquinongy*	E
CYPRINIDAE		
Central stoneroller	*Campostoma anomalum*	S
Hornyhead chub	*Nocomis biguttus*	S
Creek chub	*Semotilus atromaculatus*	S
Fathead minnow	*Pimephales promelas*	S
Bluntnose minnow	*Pimephales notatus*	S
Brassy minnow	*Hybognathus hankinsoni*	S
Spotfin shiner	*Notropis spilopterus*	S
Bigmouth shiner	*Notropis dorsalis*	S
Sand shiner	*Notropis stramineus*	S
River shiner	*Notropis blennius*	S
Spottail shiner	*Notropis hudsonius*	S
Common shiner	*Notropis cornutus*	S
Golden shiner	*Notemigonus crysoleucas*	S
Mimic shiner	*Notropis volucellus*	S
Carp	*Cyprinus carpio*	B
Longnose dace	*Rhinichthys cataractac*	S
Blacknose dace	*Rhinichthys atratulus*	S
No. redbelly dace	*Puoxinus eos*	S
CATOSTOMIDAE		
Silver redhorse	*Moxostoma anisurum*	B
Shorthead redhorse	*Moxostoma macrolepidotum*	B
Greater redhorse	*Moxostoma valenciennesi*	E
White sucker	*Catostomus commersoni*	B
Bigmouth buffalo	*Ictiobus cyprinellus*	E
Northern hogsucker	*Hypentelium nigricans*	B

Table B-2.Scientific and Common Names of Fish Collected by Seining and Electrofishing Techniques in Monticello Plant Area (continued)		
Common Name	Scientific Name	Method Sampled*
ICTALURIDAE		
Channel catfish	*Ictalurus punctatus*	B
Black bullhead	*Ictalurus melas*	B
Yellow bullhead	*Ictalurus natalis*	B
Brown bullhead	*Ictalurus nebulosus*	E
PERCOPSIDAE		
Trout-perch	*Percopsis omiscomaycus*	S
GADIDAE		
Burbot	*Lota lota*	E
ANTHERINIDAE		
Brook silverside	*Labidesthes sicculus*	S
GASTEROSTEIDAE		
Brook stickleback	*Culaea inconstans*	S
CENTRARCHIDAE		
Smallmouth bass	*Micropterus dolomieui*	B
Largemouth bass	*Micropterus salmoides*	B
Black crappie	*Pomoxis nigromaculatus*	B
White crappie	*Pomoxis annularis*	B
Rockbass	*Ambloplites rupestris*	B
Bluegill	*Lepomis macrochirus*	B
Pumpkinseed	*Lepomis gibbosus*	E
Green sunfish	*Lepomis cyanellus*	E
PERCIDAE		
Yellow perch	*Perca flavescens*	B
Walleye	*Stizostedion vitreum*	B
Johnny darter	*Etheostoma nigrum*	S
Blackside darter	*Percina maculata*	S
Logperch	*Percina caprodes*	S

*S = Seining
E = Electrofishing
B = Both

References

Gleason, H. A. and A. Cronquist, 1963. Manual of Vascular Plants, Van Nostrand Reinhold Co., New York, New York. 810 pp.