



LAKE MANAGEMENT PLAN

(Use reverse side and add additional sheets as needed)

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|--|---------------------------|--|---------------------------|--|-----------------------|
| Region 3 | Area West Metro | DOW Number 27-0070-00 | County Hennepin | Lake Name (Lake Class) Mitchell (42) | Acreage 112 |
| Long Range Goal: Establish a quality bass-bluegill fishing that is measured by a largemouth bass electrofishing catch ≥ 20 stock fish per hour with a RSD $16 \geq 15$; a bluegill summer trap net catch ≥ 30 fish per set with RSD $7.5 \geq 20$; that is capable of supporting 100 angler hours per acre. | | | | | |
| Operational Plan: 1) Population assessments in 2017 and 2023. 2) Monitor winter dissolved oxygen levels in cooperation with Eden Prairie Parks and Recreation Department. 3) Net bluegills for stocking into other lakes and kid's fishing ponds. 4) Continue lake management partnering with the watershed district and Eden Prairie Parks and Recreation Department to improve water quality, the aquatic plant and fish community. | | | | | |
| Mid-Range Objective: Maintain the present level of fishing pressure with a fish community represented by bluegill (summer trapnetting) and largemouth bass (spring electrofishing) that will support 75 angler hours. | | | | | |
| Potential Plan: 1) Creel and recreation use survey 20,000 <div style="text-align: right;">TOTAL: \$20,000</div> | | | | | |
| Primary Species Management BLG, LMB | | Secondary Species Management NOP | | FOR CENTRAL OFFICE USE ONLY | |
| Area Supervisor's Signature | | | Date | Entry Date ___/___/___ | Year Resurvey |
| Regional Supervisor's Signature | | | Date | Stock Species - Size - Number per Acre Pr./Sec. | |
| NARRATIVE (attached): (Historical perspectives – various surveys; past management; social considerations; present limiting factors; survey needs; land acquisition; habitat development and protection; commercial fishery; stocking plans; other management tools; and evaluation plans.) | | | | Schedule Year Beginning | |
| | | | | Population Manipulation ___ Yes ___ No Year _____ | |
| Development ___ Yes ___ No Year _____ | | Creel or Use Survey ___ Yes ___ No Year _____ | | Other _____ | |

VARIOUS SURVEYS:

The initial lake survey was completed in 1984; population assessments in 1980, 1991, 1999, 2005 and 2011; winterkill investigations in 1985, 1989 and 2011.

PAST MANAGEMENT:

Management of Mitchell Lake includes the above investigations and periodic winter dissolved oxygen checks. Mitchell Lake has been used as a source of bluegills for kids ponds since 1998. The lake has been stocked by local property owners in the past. Following the 2010-2011 winterkill, adult largemouth bass and bluegill were stocked. The 2011 winterkill inspection documented numerous dead largemouth bass and not a single live fish was sampled.

SOCIAL CONSIDERATIONS:

This lake is located in the Eden Prairie, approximately 10 miles from downtown Minneapolis. Miller Park is located along the south shore. The park is very popular, especially during summer. A boat access was built in 1991. A fishing pier was built in 1998. Both are inside the park. The watershed district completed a project to provide a surface outlet. This outlet caused a water level drop of approximately 2 feet in the summer of 1998. A winterkill followed in the winter of 1998-1999.

PRESENT LIMITING FACTORS:

Unusually dense vegetation and poor water quality have resulted in low winter dissolved oxygen levels. The aeration system purchased for Mitchell Lake was used at another site during the winters of 1988-1989 and 19989-1990. Since the city built Miller Park and the boat access, the aeration system has been used at Mitchell Lake.

SURVEY NEEDS:

Population assessments have been scheduled in 2017 and 2023. Electrofishing for largemouth bass should be included as a component of the PA in order to evaluate the stocking of adult bass in 2011. A creel survey and recreational use survey should be proposed when funding is available.

LAND ACQUISITION:

None is needed at this time.

HABITAT DEVELOPMENT AND PROTECTION:

Aquatic macrophytes must be protected through APM permitting process. Shoreline preservation can be improved by working with the city on zoning ordinances.

COMMERCIAL FISHERY:

This lake offers very little opportunity for commercial harvest.

STOCKING PLANS:

Continue walleye fingerling stocking in even numbered years. Restock after documented, severe winterkills. Stock species not sampled during winterkill assessment at rates appropriate for this size lake.

| <u>Species</u> | <u>Rate</u> | <u>Pounds</u> | <u>Number</u> |
|----------------|-------------|---------------|---------------|
| WAE FGL | 15 fish/lb | 218 | 3270 |
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MANAGEMENT TOOLS:

If the fish community becomes undesirable due to high recruitment and slow growth of bluegill, obtain public consensus to create conditions similar to a reclamation by turning off the aeration system when winter oxygen levels are low enough to cause a severe winterkill.

EVALUATION PLAN:

Evaluation will consist of regularly scheduled surveys and assessments. A creel and recreational use survey should be conducted when funding becomes available.