
Wildlife Lake Habitat Survey Report



NAME OF LAKE: Freeborn

DOW LAKE ID #: 24004400

DATE OF SURVEY: 8/9/2012

TYPE OF SURVEY: Wildlife Lake Survey

SURVEY CREW: N. Myhra & B. Johnson



Information Provided by:

Minnesota Department of Natural Resources
Wildlife Management Section
Shallow Lakes Program
Tuesday, January 27, 2015



DOW Lake ID: 24004400
Survey Date: 8/9/2012

General Lake Information

Location Information

Legal Description

Township: 105 **Range:** 23 **Section:** 35

Primary County: Freeborn

Work Area Name:

Wildlife Work Area:

General DOW Lake Information

Basin Area (Acres): 2,222

Secchi Depth (feet): 0

PWI Class: P

Number of Public Accesses: 1

DOW Wetland Type: 4

Watershed ID: 32031

USGS Quad Name: Freeborn

Miles of Shoreline: 11

Survey Maximum Lake Depth: 4.5

Survey Mean Lake Depth: 2.7

Survey Maximum Secchi Depth: 0.3

Survey Mean Secchi Depth: 0.3

DOW Maximum Lake Depth: 3.0

DOW Mean Lake Depth: 1.0

Lake Survey Conditions

Time:

Temperature Air / Water (F): 74 / 78

Cloud Cover (%): 5% cloud cover

Wind Speed (mph): 5.5 **Direction:** W

Previous Wildlife Lake Survey Information

Type of Survey	Survey Year	Survey Date	Survey Crew	Requested by
Wildlife Lake Survey				
Wildlife Lake Survey	1990	10/29/1990		
Wildlife Lake Survey	2002	09/10/2002	Steve Piegras & Ann Geisen	Jeanine Vorland, AWM
Wildlife Lake Survey	2012	08/09/2012	N. Myhra & B. Johnson	Jeanine Vorland, AWM

Lake Survey Access Information

Ownership: County

Access Type: Concrete

Description: The lake was accessed at the Arrowhead Park public access off of 267th Street on the east side of the lake.

Inlets and Outlets Information

Inlet Information

Inlet Name: Cobb River

Inlet Type Code (a): IF

Inlet Cover Type (c) and Description:

Fish Barrier (Y/N) (e): N

Fish Barrier Description:

Comments:

Flows in on southeast corner of basin.

Outlet Information

Outlet Name: Cobb River

Lake or River ID:

Tributary To:

Water Control Structure Information

Type and Description:

Owner and Description

Head Reading:

Sill Reading:

Gauge Reading

Comments:

Located on the west side of the basin. Structure is a concrete dam with a fixed sill and sheet piling.

Inlet Flow Information

Flow (fps): **Average Width (feet):**

Flow (cfs): **Average Depth (feet):**

Method (d): **Inlet Surface Temp (F)**

Outlet Flow Information

Flow (fps):

Flow (cfs):

Method (d):

Average Width (feet):

Average Depth (feet):

Barrier to Fish (Y/N) (e): Y

Fish Barrier Description:

- (a) (ID) Intermittent - Dry (no flow at mouth, still may contain water), (IF) Intermittent - Flowing (currently has flow at mouth), (C)ontinuous flow, (X) Unkown
- (b) (N)amed lake (give name), (U)nnamed lake, (M)arsh, (S)pring, (W)ell, (T)ile, (SS) Storm sewer, (D)itch, (O)ther (describe), (X) Unknown
- (c) Give up to two most common in order of abundance: (H)ardwoods, (CO)nifers, (MI)xed Forest, (G)rasses, (CR)ops, (P)asture, (MU)nicipal, (R)esidential, (O)ther (describe), (X) Unkown
- (d) (F)loating object, (C)urrent meter, (D)irect time and volume measurement (gpm / 15.9 = cfs). Describe where the flow measurement and avg. width/depth estimates were taken on the flow worksheet section
- (e) (Y)es, (N)o, (X) Unkown
- (f) List the species code for up to 4 species with known spawning runs in this inlet
- (g) (TC) type "C" with stoplogs, (SP) Sheet piling, (DI) Drop inlet with stoplogs, (CF) Concrete with fixed sill, (BD) Beaver dam, (O)ther (describe), (X) Unkown
- (h) (DNR), (UFS), (DOT), (COU)nty, (COE), (NPS), (FWS), (CIT)y, (TOW)nship, (NPS), (PRI)vate (describe), (None) (natural dam), (O)ther (describe), (X) Unkown

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Water Level and Chemistry

Water Level Information

Code:

Benchmark/Gauge Description: Benchmark reading was taken from the "Park Rules" sign located at the public access on the east side of the lake at Arrowhead Park. The reading was taken from the base of the sign.

Water Level Reading (feet + or -): -2.99

Current Water Level: X

Water Level Description:

Average Annual Fluctuation:

Annual Fluctuation Description:

Annual Level Fluctuation Source:

Extreme Fluctuation:

Water Level History Comments:

Water Chemistry

Lake or Inlet (L or I): L **Station Number of Water Sample:** 73

Sample Date: 8/9/2012 **Depth Sample Taken (ft):**

Date Sample Analyzed: 8/23/2012 **Bottom Depth (ft):**

Nonstandard Description:

Color Cause Code and Description:

Water Color Code and Description:

Total Phosphorus (ppm): 0.320	pH:	Dissolved Oxygen (ppm):
Ortho Phosphorus (ppm):	Sulphate Ion (ppm):	Biological O2 Demand (ppm):
Conductivity (umhos): 241	Chloride Ion (ppm):	Organic Dissolved Solids (ppm):
Nitrate [NO3-N] (ppm):	Total Iron (ppm):	Dissolved Solids (ppm):
Nitrite [NO2-N] (ppm):	Dissolved Iron (ppm):	Suspended Solids (ppm):
Nitrogen TLKJ (ppm):	Alkalinity (ppm):	Chlorophyll A [trichromatic] (ppm):
Ammonia [NH3-N] (ppm):	Alkalinity Method:	Chlorophyll A [pheophytin] (ppm):

Other Measurements

Comments:

DOW Lake ID: 24004400

Observations and Field Notes

Survey Date: 8/9/2012

Waterfowl and Wildlife Observations / Field Notes

Waterfowl Observations:

Waterfowl utilization at the time of the survey consisted of 130 Canada geese.

Other Wildlife Observations:

Other wildlife observations included 1 American white pelican, 1 double-crested cormorant, 12 great blue herons, and 1 bald eagle.

Field Notes:

No vegetation was observed throughout the entire basin, and water clarity was poor. The bottom sediment consisted mainly of silt, with some areas of sand near shore. A large number of Canada geese were observed on the basin. The survey crew also noted common carp and bullheads within the basin.

Wildlife Managers Comments or Management Recommendations:

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Wildlife Lake Sample Station Summary - Freeborn

Survey Date: 8/9/2012

Sample Station Information

Minimum Depth: 0.25 Minimum Secchi: 0.25 Initial # of Stations: 99
Maximum Depth: 4.50 Maximum Secchi: 0.25 Number of Stations Sampled: 99
Mean Depth: 2.67 Mean Secchi: 0.25

Vegetation Summary

Number of Sample Stations: 99

Lakewide Species Richness: 0

Percent of Vegetated Plots: 0.0%

Vegetation Species	# of Plots Occurring	Species Frequency	95% CI	High C / I	Low C / I	Frequency Value
No Vegetation Found No Vegetation	99	100.0%	0.0051	1.0051	0.9949	1.0000

Survey Map

