



Waterfowl Season Report

Muskegon Wastewater Treatment System 2020



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1. Introduction

2020 marked the 42nd year of managed waterfowl hunting on the Muskegon County Wastewater Treatment Plant (WWTP) and Goose Management Unit (GMU).

2. Area Goals

The goal of the managed hunt is to provide a safe, quality hunting experience within the Federal season framework established for the Muskegon GMU.

3. Habitat Management

Muskegon County staff and contractors plant a rotation of corn, soybeans, and alfalfa on the WWTP.

4. Area Maintenance

Maintenance activities include repair and placement of informational and directional signs, field marker posts (both are carsonite strips), and reflectors (as needed).

5. Recreational/Educational Activities

Due to Covid-19 concerns, the spring migration birding tour and Wetland Wonders event at the Muskegon Wastewater was cancelled this year. These same concerns also changed the annual youth hunt (youth hunters age 16 and younger) in the 2020 season. The youth hunt (single drawing hunt) was held on Saturday, October 31 with only youth hunting parties eligible to participate. Seven youth hunting parties with nine youth hunters participated. A single drawing Veterans only hunt was also held on Tuesday, November 10. Six veteran hunting parties with eight qualified veteran hunters participated.

6. Waterfowl Banding

Ten mallards and 53 wood ducks were banded by Muskegon SGA staff on the WWTP.

7. Waterfowl Season

A. General

The 2020 WWTP managed hunt opened on Saturday, October 17. A total of 37 hunter parties (1-4 hunters per party) registered for the single hunt with 32 parties hunting the fields. The Wastewater season started with 73 available hunting positions, but the maximum number of hunting positions (98) was not reached until December 12. The WWTP GMU season ran from October 17, 2020 to December 22, 2020.

B. Weather and Habitat Conditions

Below average summer precipitation and above average temperatures generally continued into the fall season in the Muskegon area. October temperatures were slightly below average, but November (+ 5.7 degrees F) and December (+3.1 degrees) were very mild. October ended up with approximately 1 inch more rainfall than the long-term average for the month. November and December rainfall amounts were below average, with less snow than average, also (-6 inches and -14 inches, respectively).

Above average Lake Michigan water levels and October rains maintained favorable water conditions on the Muskegon River bottoms for the general waterfowl opener on October 10. Both the Cedar Creek and Mosquito Creek systems held good water and provided habitat for migrant waterfowl. Opening day hunting was good for wood ducks and milder than average November conditions allowed some early migrants to remain in the area longer than in 2019.

C. Migration and Waterfowl Numbers

The peak WWTP duck number estimate in 2020 (16,870) occurred between October 10 through 17 and was not significantly different from the 2019 estimate (17,455), although it occurred approximately one week earlier. Ruddy ducks and northern shovelers were once again the most abundant species (during this time). The highest count for mallards and black ducks (2,720) occurred during the last full week of November and was 3% higher than the 2019 totals (2,640). In general, duck numbers in October and November were similar in 2019 and 2020.

WWTP Canada geese numbers reached their maximum count of 7,000 birds during mid-November. The timing was a week earlier than the 2019 surveys but was also significantly higher (40%) than the 2019 maximum count of 5,000 geese. Complete WWTP waterfowl surveys are shown in Table 1.

D. Season Dates and Regulations

In 2020, there were 29 hunting days at the Muskegon Wastewater GMU. Due to Covid-19, significant changes were implemented prior to the season opener. The addition of a Thursday afternoon hunt and change to an all-day hunting format on Tuesdays and Saturdays resulted in 10 more days of hunting, but 9 fewer separate hunts or drawings than in 2019. The weekly hunting days took place on Tuesdays and Saturdays (all-day hunts) and Thursday afternoon-only hunts. The Thursday hunts were a new addition and accounted for the additional hunting days. Due to regular waterfowl season frameworks, the last day of duck hunting on the WWTP was December 5. The Muskegon GMU season began on October 17 and the last day of hunting was December 22.

E. Harvest and Hunter Use

The Covid-19 pandemic caused significant changes for all the waterfowl management areas of Michigan, and the Muskegon Wastewater was no exception. It was determined that managed waterfowl hunting could take place only if major changes were instituted to

provide safe conditions for both the hunting public and check station staff. Due to safety protocols, hunters were not allowed in the building where Wastewater drawings were traditionally held, and all public restroom facilities were closed. All drawings were held outside the check station building by an overhead door, pre-hunt license checks were eliminated, and post-hunt bag checks were also eliminated. Only hunting party leaders could approach the registration point and all other party members were encouraged to stay in their vehicles. Wastewater drawings were limited to only one drawing per hunting day and a new drop-box system was set up on the Wastewater property to collect permit cards. 2020 was unlike any previous year at the Muskegon Wastewater.

In 2020, goose harvest increased from 184 birds to 278. The success rate of geese per hunter trip was .35 (long-term average of .32 geese). However, duck harvest decreased from 349 birds to 271 ducks taken. The success rate (.41 ducks per hunter trip) also went down but was well above the long-term average of .21 ducks per trip. Hunter trip numbers increased from 634 trips in 2019 to 790. Much of the increase was attributable to the additional third day of hunting (Thursday), but allowing single hunter parties to register in the drawings may have been a factor, also.

Warm and dry conditions, particularly in late October and November, resulted in excellent soybean and corn harvest conditions. Inconsistent Canada goose use during this time period created variable hunting conditions for late October and early November as several large dairy farms and water treatment facilities south and east of the WWTP continued to be well-used refuges for local and migrant geese. In general, however, corn harvest was well ahead of schedule and helped waterfowl hunting. Overall, 34% of the Wastewater goose harvest occurred during the month of October, 41% in November, and 25% in December. Duck hunting success started early in the GMU season. October duck harvest was 43%, followed by 56% in November. December had only three days of duck hunting.

The 5 Year Summary, October/November/December comparison, and hunter participation figures are in Tables 2-4.

F. Daily Hunter Use and Species Harvest

See Table 3.

G. Cropping and Management Practices

Approximately 3500 acres of crops are planted on the WWTP, in a rotation of corn, soybeans, and alfalfa. In 2020, corn fields comprised approximately 31% of the WWTP fields open for hunting, 19% of the fields were soybean fields, and 50% of the WWTP fields were in hay. In the 2020 season, 72% of the goose harvest and 62% of the duck harvest occurred in the corn and bean fields (50% of the fields).

Since 2015, a Memorandum of Agreement (MOA) has been in effect between the DNR Wildlife Division and Muskegon County. By this MOA, Muskegon County has agreed

to leave up to 15 standing corn and corn stubble strips in designated corn fields on the WWTP. Because of field location, only 7 strips were left and utilized in 2020. These strips were funded by the DNR Wildlife Division (total cost, \$4,900). The corn strips were guaranteed to remain standing from corn harvest to the end of November. The MOA designed combination of corn and corn stubble strips and farming practices left waste grain in the WWTP fields and were well received by Wastewater hunters. The corn strips also provided additional concealment opportunities for Wastewater hunters.

H. Recommendations

1. Dependent upon season framework, continue holding the preferential Youth Hunt drawings on the last Saturday in October. The Veterans Day hunt would be scheduled on the closest Wastewater hunting day to the holiday.
2. Continue the MOA between Muskegon County and DNR Wildlife Division to provide standing corn and corn stubble strips in the WWTP fields.
3. Maintain the Tuesday, Thursday, and Saturday hunting schedule with all-day hunts on Tuesdays, afternoon hunts on Thursdays, and two drawings (morning and afternoon hunts) on Saturdays.

I. Economic Importance

While the Muskegon GMU hunt is relatively small scale, there is no doubt that hunting (and other forms of outdoor recreation) is important to local businesses in the Muskegon area. It is difficult to quantify this effect, but the economic benefits generated by fuel purchases, morning coffees, pre-hunt breakfasts, post-hunt dinners, license purchases, ammunition, hunting equipment, and motel rooms are significant. Northern Michigan, east side, or out-of-state hunters who participate typically spend most of their day in the Muskegon area. In the future, a managed hunt questionnaire may be one method to get a better idea of the economic values associated with the Muskegon GMU hunt.

J. Prominent Clientele Groups

1. Lake Effect MDHA
2. Macatawa Bay MDHA
3. West Michigan Wildlife Association
4. Wastewater Hunters Friends Group

Our thanks to the administration, farm unit, and maintenance staff of the Muskegon County Wastewater System. Without their support, cooperation, and assistance, the managed waterfowl hunt could not take place.

cc: M. Sargent, SW Region Wildlife Supervisor
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[Dashboard of 2020 Waterfowl Survey Numbers by Week](#)

[Excel Spreadsheet of 2020 Waterfowl Survey Numbers by Week](#)

Table 1.

Harvest Data – 5 Year Summary

Category	2016	2017	2018	2019	2020
Hunter Trips	551	532	473	634	790
Hunting Days	15	15	16	19	29
Hunts	23	22	23	38	29
Geese	235	146	148	184	278
Ducks	93	247	182	349	271
Goose Reported Cripples	10	9	4	7	7
% Geese Crippled	4	6	3	4	3
Duck Reported Cripples	7	14	5	9	12
% Ducks Crippled	8	6	3	3	4
Geese/Hunter Trip	.43	.27	.31	.29	.35
Ducks/Hunter Trip*	.20	.49	.45	.33	.41

*(based on days open for duck hunting)

Table 2.

2020 October/November/December Breakdown

Category	October	November	December	Total
Hunts	7	12	10	29
Registered Parties	97	141	96	344
Hunting Parties	91	142	94	327
Hunter Trips	236	331	223	790
Hours	1260	2123	1043	4426
Ducks	116	135	20	271
Geese	95	114	69	278
Ducks Not Recovered Reported	3	8	1	12
% Ducks Not Recovered	3	6	2	4
Geese Not Recovered Reported	1	2	4	7
% Geese Not Recovered	3	2	6	3
Ducks/Hunter Trip*	.49	.41	.20	.41
Geese/Hunter Trip	.40	.34	.31	.35

*based on days open for duck hunting

Table 3 (multiple tables).

2020 Daily Hunters and Species Harvest

Category	Oct. 17	Oct. 20	Oct. 22 PM	Oct. 24	Oct. 27	Oct. 29 PM
Parties	32	11	6	17	6	12
Hunters	91	25	18	45	16	18
Canada Geese	65	13	0	0	4	1
Mallards	34	6	10	17	23	3
Widgeon	1	0	1	0	0	0
Pintail	4	1	0	2	0	0
Wood Duck	6	0	0	5	0	0
Gadwall	1	0	0	0	0	0
GWT	1	0	0	0	0	0
Ruddy	1	0	0	0	0	0

Category	Oct. 31	Nov. 3	Nov. 5 PM	Nov. 7	Nov. 10	Nov. 12 PM
Parties	7	5	6	14	6	9
Hunters	23	13	11	36	16	21
Canada Geese	12	5	9	17	14	10
Mallards	0	1	15	3	18	9
Black Duck	0	0	1	0	0	0

Category	Nov. 14	Nov. 17	Nov. 19 PM	Nov. 21	Nov. 24	Nov. 26
Parties	19	14	10	27	11	5
Hunters	58	35	27	34	30	1
Canada Geese	27	9	3	6	12	1
Mallards	13	16	20	5	25	2
Gadwall	1	0	0	0	0	0
Black Duck	0	1	0	0	3	0

2020 Daily Hunters and Species Harvest Continued

Category	Nov. 29	Dec. 1	Dec. 3 PM	Dec. 5	Dec. 8	Dec. 10 PM
Parties	15	12	9	19	7	3
Hunters	40	30	22	50	15	6
Canada Geese	1	9	4	4	6	1
Mallards	3	8	3	7	0	0
Hooded Merganser	0	2	0	0	0	0

Category	Dec. 12	Dec. 15	Dec. 17 PM	Dec. 19	Dec. 22
Parties	14	5	7	10	8
Hunters	35	9	13	25	18
Canada Geese	10	9	6	4	16

Table 3 Totals

Parties - 327

Hunter trips - 790

Mallards - 240

Gadwall - 2

Wood duck - 11

Hooded merganser - 2

Pintail - 7

GWT - 1

Black duck - 5

Ruddy duck - 1

Am. Widgeon - 3

Total Ducks - 271

C. Geese - 278

Total Geese - 278