

ALLEGAN MANAGED WATERFOWL AREA 2020-2021 ANNUAL REPORT

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General

Introduction

This report includes information for the Allegan Managed Waterfowl Area (MWA), focusing on the four Managed Waterfowl Units (Fennville Farm Unit, Highbanks Unit, Bravo Unit, and Ottawa Marsh), and for the reporting period from February 1, 2020 through February 14, 2021. Tables appended to this report provide further quantification.

Area Goals and Management Emphasis

The primary goals of the Managed Waterfowl Units are providing habitat and safe harbor for migrating and over wintering waterfowl and for waterfowl production, with an emphasis on both Canada geese and dabbling ducks; providing hunting opportunities for waterfowl and other species; and providing wildlife viewing opportunities and other non-hunting recreation as compatible with primary goals.

Management emphasis on the Area is primarily directed toward providing food and habitat for migrating and over-wintering waterfowl in the form of row-crop fields (Farm Unit), grass fields (Farm Unit), and wetlands (Highbanks, Ottawa Marsh, and Bravo, and Farm Units).

Wildlife Production and Use Estimates

Waterfowl production is largely limited to wood ducks, hooded mergansers, mallards and Canada geese. A variety of furbearers have been noted in the Managed Waterfowl Area including river otters, beavers, mink, muskrat, red fox, coyote, and raccoon. Other resident wildlife common to the MWA include deer, turkeys, pheasants, crows, squirrels and rabbits. Coyote numbers are sufficient to provide hunting and trapping opportunities however very few red foxes have been seen in recent years. The Farm Unit is well known for its grassland birds (bobolink, horned larks, grasshopper sparrows, and Henslow's sparrows) and wintering raptors (bald eagles, golden eagles, rough-legged hawks, northern harriers, short-eared owls) and other species of greatest conservation need.

Habitat Management

The most intensively managed of the Units is the Farm Unit which includes over 4,100 acres. Approximately 1,700 acres are maintained in agricultural crops largely through contract arrangement with sharecrop farmers. Water level management on all Units, including draw downs and flooding of impounded Units, is used to enhance and maintain desirable plant communities. Forest management and forest opening maintenance are practiced throughout all 4 managed waterfowl units.

The Fennville Farm Unit is designated as a Pheasant Restoration Initiative Core Area giving greater attention to the quality grassland habitats that have been created on the Unit. Covid19 executive orders preventing the hiring of seasonal staff, the freeze of operating budgets, and stay at home orders made field work extremely difficult, and as a result, little was accomplished in the field for maintenance of grasslands in 2020. An 11 acre field was replanted to switchgrass, and some small scale invasive species work was completed on woody vegetation and spotted knapweed.

Approximately 32.5 acres of corn (hunter concealment strips) were planted on the Farm Unit by DNR personnel. In addition, 47 acres of food plots consisting of buckwheat, corn, sunflowers, millet, and sorghum were planted.

Similar to past years, the Farm Unit Impoundment was drawn down in late winter to promote wetland plant growth and there was a good crop of mainly beggars tick with some smart weed, sawgrass, and marsh milkweed as well. Summer conditions provided adequate growth of wetland plants in the impoundment. The impoundment was filled during fall through capture of surface water runoff.

The upper and lower pools in the Highbanks Unit were not drawn down in 2020 in an effort to drown out some of the woody vegetation increasing in those units. Both the upper and lower pool produced a good crop of smartweed and other moist soil plants.

Hay fields in the decoy areas around the refuge border in the entire northeast quadrant of the farm unit (Zone 2 and Zone 8 H-J) were planted to row crop again in 2020. Corn was planted in these fields in 2020 in hopes of providing a more desirable feeding area for ducks and geese. The plan worked to attract more ducks during duck season however once covered with snow, it didn't impact the later goose season. We plan to continue using row crop methods in these decoy areas with the potential of expanding these techniques in decoy areas in other parts of the Farm Unit.

Species Management

In 2020 the Fennville Farm Unit staff banded few ducks and no geese. Baiting was done in July, August and September. Ducks used the baiting areas heavily but eluded us each time we trapped. Hopefully some different tactics will allow a better catch in 2021.

Mute swan removal, especially at the Highbanks Unit, is a continuing project. Several mute swans were removed from the Highbanks, Ottawa Marsh, and Farm Units during this period. Efforts have proven successful despite the difficulty in accessing the swans. Trumpeter Swans continually, yet slowly increase in numbers with continued Mute Swan removals in the wetlands managed by Farm Unit staff.

The MWA has a continuing goal to contain deer populations at levels that are compatible with other MWA goals. Antlerless deer hunts were held on the Farm from 2005 through 2007, but they were suspended in 2008 due to low deer concentrations in the refuge. Deer numbers have risen in recent years in the area. This may become an issue in the future and may require special management but nothing is planned for the 2021 season at this time.

Land Acquisition Update

No purchases

Area Maintenance

Several hunter access trails were rototilled and compacted in 2020. 45 acres of grasses and all the trails were mowed on the Farm Unit. The Highbanks dikes were mowed twice during the summer. Staff continue to clean drains across the Farm Unit as they become silted in or overgrown with brush.

Equipment

There were no equipment purchases in 2020.

Special Projects

In 2020, a \$415,000 wetland enhancement project involving the rebuilding of the refuge portion of the dikes around the Zone 7 impoundment on the south side of the Farm Unit was started. Soon after a small amount of aggregate was trucked in and clay was excavated for the building of the new dike, the project was paused due to Covid19 restrictions. By the time the project was un-paused, the waterfowl season had started again, delaying the project further. This project is expected to resume in spring of 2021.

Recreational and Educational Activities

Recreational pastimes for which the Units within the MWA are utilized include wildlife viewing, fishing, hiking, boating, wild food collecting, and sightseeing in addition to hunting and trapping.

A few privately guided visits to the Farm Unit to watch birds took place in 2020 despite Covid19 restrictions. The wetland wonders birding event at the Farm Unit was canceled in 2020. The Christmas Bird Count took place on the game area over the holidays. Staff were not involved in any of these activities in 2020.

The WMA contributed opportunities for Youth hunting throughout the period. The federal youth hunting weekend outlined in the 2020 waterfowl digest occurred September 19 and 20. On November 7, 2020 and December 5, 2020 youth hunts through the Managed Waterfowl Hunt were held. Respectively, 44 and 4 youths took part in the two hunts contributing to the overall youth hunter trips. Youth hunters decreased in 2020 in both the morning and afternoon hunts. We will continue the youth preference style drawing on these days in the future to help promote more youth entering the fields.

Waterfowl Hunting Season

General Introduction

Conditions for the goose hunt in 2020 were poor. In 2020 goose hunters could hunt through the drawing procedures on weekends only. Hunting was closed on Mondays and hunters could self-register for goose hunting Tuesdays through Fridays. Sundays were an afternoon hunt only with a drawing at 11am while the rest of the days were all day hunts. Hunter numbers were much lower than last year. As a result, fewer geese were harvested in 2020. Duck hunting across the area was fair with increased hunter trips for ducks and lower harvest.

Weather and Habitat Conditions

The weather during the hunt in 2020 was very mild until the last few weeks. Temperatures remained much above average throughout almost the entire season except for the a few weeks in late January and February. Very little snowfall occurred until late in the waterfowl season and rainfall was lower than average in the fall as well. This resulted in difficulty filling impoundments and difficulty holding ducks in the refuge early on.

Crop production was slightly above average on the farm in 2020. Planting conditions were great in 2020 and both planting and harvesting were on schedule or early. Barley was planted as a cover crop on some fields in the refuge and birds used these fields regularly throughout the waterfowl season before they were buried in snow.

Migration and Waterfowl Numbers

Canada goose numbers on Goose Management Unit increased slowly but steadily from around 600 geese on September 5 to around 2000 by the end of October. From here we remained below 5500 geese through the middle of January. Goose numbers jumped to around 10500 birds towards the middle of January and was our peak count for the season. Estimates in September, October, November, December, January, and February averaged approximately 500, 1600, 2425, 3550, 8300, and 8000, respectively. The greatest increase in goose numbers occurred in mid-January.

Mallard numbers in the WMA rose steadily from October through the beginning of January with a peak of around 8000 estimated. Non-mallard dabblers were most prevalent in October and November. Wood duck numbers peaked around the 2nd week of October (950 estimated). Ring-necked ducks were abundant in the Highbanks Unit from mid-October through early December.

Table 1 provides estimates of waterfowl present on the GMU. Estimates of goose numbers are more reliable than estimates of duck numbers. Fall estimates are less variable than winter estimates. Cold and snowy conditions tend to concentrate waterfowl on the Farm Unit where birds are easier to locate, but obtaining an accurate estimate is difficult. Conversely, wet, and warm weather prompts birds to disperse from the Farm Unit making surveys difficult.

Season Dates and Area Regulations

To limit the spread of Covid 19 and to mitigate some of the challenges presented with Covid 19 restrictions, several changes were made to the draw system and drawings were reduced from 5 days per week to 2 days per week. To eliminate the need for hunters to enter the building, drawings during the 2020-21 waterfowl season were conducted as a drive-up system. Each party would pick up a registration card at a drive-up window with plexiglass shield on the front of the building as they entered the Farm Unit parking lot. Each party was then instructed to remain in their vehicle for the draw and to tune their car stereo to 106.1 FM. At starting time for the draw each day, an FM transmitter was used to relay announcements for rules and regulations of the hunt, daily shooting times, and any other pertinent information. When a party's number was called, they would drive into a lane created along the back of the building where we had converted 2 overhead doors into draw windows using wood and plexiglass shields. At the first window, the party leader only would exit the vehicle, walk up to the

window wearing a mask, and select a hunting zone off the board. Behind the second window was a table where bingo balls were drawn for draw order and announcements were made. This system worked extremely well for operating the draw and many hunters complimented on the process and the ease of use. Drawings were also reduced from 5 days per week to 2 days per week with an all-day hunt on Saturdays. This reduction was made to mitigate the likelihood of the drawings being shut down due to a Covid 19 restriction requiring all waterfowl hunting to go to self-registration after 5 consecutive draws with under 15 parties per draw, while still being able to draw during the busy weekend days. To help provide opportunity for goose hunting during the week with the reduction of drawings, Tuesdays through Fridays were open to goose hunting by self-registration. Each waterfowl management area was required to close waterfowl hunting one day per week, and as such, the Farm Unit was closed to waterfowl hunting on Mondays throughout the entire season.

Goose season regulations in the Allegan County Goose Management Unit are determined from multiple variables. These regulations must fit within a set of parameters put forth by the U.S. Fish and Wildlife Service. Factors used in determining the season regulations on any given year within the frameworks provided by USFWS include the use of waterfowl abundance surveys conducted from September through mid-February, survey data provided by hunters who participate in the managed waterfowl hunt at the Farm Unit, input from hunter conversations, concerns and suggestions from throughout the GMU, and hunter data gathered throughout the managed hunt. The survey data combined with the consideration of social and economic impacts help to provide sound scientific management in the setting of season regulations to allow the most opportunity possible in the timeframe of when the most geese are present within the GMU.

The Duck Season on the GMU ran concurrent with the rest of southern Michigan (South Zone: October 10th through December 6th, and December 26th and 27th, 2020). The GMU Goose Season included 107 days (September 1-30, November 7-14, Nov. 26 – Dec. 6, and Dec. 19, 2020 – Feb. 14, 2021) with the managed hunt open all days except Mondays. The Farm Unit is closed for early goose season in September, but the remainder of the Allegan GMU is open on public and private land. As in previous seasons, there was no quota assigned to the Allegan GMU.

Morning hunts were offered through the draw on Saturdays only. Drawings for morning hunts were held at 5:30 am. The hunt on morning draw days began at the opening of legal shooting time as outlined in the given years waterfowl digest and lasted all day. Afternoon hunts were offered Sundays only during the entire GMU season. Drawings for the afternoon hunts were held at 11:00 am. The hunt began immediately following the drawing and lasted until the close of shooting time as listed in the given year's waterfowl digest. Tuesdays through Fridays were hunted by self-registration during the entire GMU season and hunting could occur from opening of legal shooting time until end of legal shooting time posted in the 2020 waterfowl digest.

The early teal season was offered again this year (Sep. 1-16). The Farm Unit saw little participation in this season and no birds were harvested. This hunt was on a first-come, first-served basis by self-registration.

Hunting Season Results

Daily participation appeared to track hunter success, weather conditions and goose behavior in the GMU. With mild weather we experienced poor hunting throughout most of the GMU season except for the last few weeks where hunter success was above the long-term average. Duck season was below average with higher hunter participation and lower harvest due to the extremely mild weather.

Harvest and Hunter Use

During the goose season, a combined 1,581 hunter trips from self-registration and draw hunts, resulted in 289 harvested geese (0.18 geese/hunter trip) (Tables 2-5). This success rate is much lower than the long-term average of .25 geese/hunter trip.

Only 8 ducks were taken from the Farm during the 2020 managed hunt through draws as tallied from Party Registration cards. Duck hunters were required to report their kill by self-registering to hunt outside draw times. There were 352 ducks harvested as tallied from the 542 self-registration cards resulting in a .65 duck/hunter trip harvest rate. Duck hunters reported that success on the Farm Unit was below average and success in the Ottawa Marsh Unit was below average during the 2020 season.

Permits

A total of 407 permits were issued through the draw for the managed hunt resulting in 1005 hunter trips through the draw. In addition, 576 self-registration permits were turned in for goose hunting and 542 self-registration permits were turned in for duck hunting. The Farm Unit was the primary destination for those hunting geese inside the WMA. Historically, the Highbanks Unit figured centrally in the MWA harvest but declined dramatically in the early 1990s. Thereafter, the Bravo Unit figured more centrally in the combined harvest but has shown dramatic declines since 2004. Both units have reduced importance during the open hunting season due to shifting the GMU season later in the year but are still valuable resting areas for waterfowl earlier in the year, especially during the September season, when geese in these areas are a valuable resource to private land hunters and some public land hunting areas as well. The Bravo and Highbanks Units are hunted on a first-come, first- served basis so permits are no longer issued through the managed goose hunt.

Species Harvest

Canada geese are typically the predominant waterfowl species harvested through the managed hunt as detailed in the Harvest and Hunter Use table (Table 2). The number of harvested geese this year was 289, much lower than last year's total of 375. Reported waterfowl harvests this year included Canada geese, mallards, wood ducks, pintails, black ducks, gadwall, widgeon, green-winged teal, blue-winged teal, bufflehead, ring necks, and mergansers. The harvest is largely supported by migrant birds from the early-migrating wood ducks concentrating in the Ottawa Marsh to the late migrating and overwintering Canada geese and mallards concentrating on the Farm Unit and using local water roosts overnight.

No biological data from harvested Canada geese was recorded during the 2020-21 managed hunt. Resident (local giant Canada geese), migrant (lesser Canada geese), and Cackling geese comprise the subspecies harvested at the Farm Unit.

Cropping and Water Level Management

The refuge impoundment in front of Zone 7 was filled to capacity this year. This impoundment has great potential for holding more water but has been limited in recent years by settling dikes that need substantial repair. The shallow water wetlands created in Zone 6, in addition to associated flooding in the refuge adjacent to Zone 6, supplied additional surface water for roosting. Water levels in the new Ducks Unlimited flooding north of 120th Ave. remained at or near full pool with supplemental pumping most of the 2020 duck season despite low rainfall amounts. Crops on the Farm were above average in 2020.

Recommendations

Maintain the Allegan County Goose Management Unit (GMU) boundary in its current configuration while continuing to review its function in meeting population management needs, and hunter satisfaction.

Maintain and add permanent grasslands in the eastern portion of the Farm Unit and increase winter cover for pheasants in these areas with switchgrass plantings and native shrubs. Continue invasive species and tree removal projects.

Continue to monitor dikes and dams to achieve early detection of maintenance needs and comply with monitoring requirements as set down in Dam Safety Inspection Reports.

Continue monitoring and banding of locally bred ducks.

Continue to reduce mute swan populations on the ASGA.

Continue to provide hunting opportunities that promote youth participation and other forms of new hunter recruitment and existing hunter retention. Continue to search out partners that can donate time and resources to these events.

Continue to provide hunting opportunities that are ADA friendly where feasible.

Continue conversion of marginal cropland into wetland areas where possible and work to convert current reed canary grass monocultures to productive moist soil units.

Continue to experiment with different and innovative ways to improve decoy areas at the hunting posts surrounding the refuge.

Evaluate 2020-21 season results and consider operational changes to hunting opportunities in 2021-22 (eg. Maintain self-registration during duck season but abolish self-registration for goose hunting and establish drawings 3-4 days/week)

Tables and Data

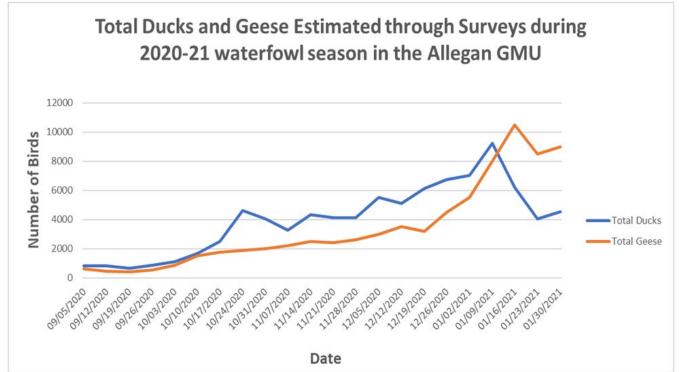


Table 1. Weekly waterfowl estimates from the Allegan GMU from September 5, 2020 through January30, 2021.

CATEGORY 2011 2014 2019 2012 2013 2015 2016 2017 2018 2020 MANAGED 2430 2599 3726 4546 4010 4189 3447 2411 2263 1005 HUNT SELF-REGISTRATION NA NA NA NA 588 456 1017 NA NA NA HUNT TOTAL 2430 2599 3726 4546 4010 4189 3447 2999 2719 2022 **HUNTER TRIPS** MANAGED HUNT GOOSE 469 370 1160 1159 830 1190 1007 375 144 554 HARVEST SELF-REGISTRATION NA NA NA NA NA NA NA NA NA 145 GOOSE HARVEST MANAGED HUNT DUCK NA NA NA NA 188 8 NA NA NA 117 HARVEST SELF-REGISTRATION NA NA NA NA NA NA NA 370 500 352 DUCK HARVEST TOTAL 370 649 WATERFOWL 469 1160 1159 830 1190 1007 1041 1063 HARVEST GOOSE SEASON 45 90 65 67** 63 91 91 98 96 56 LENGTH IN DAYS DUCK SEASON LENGTH IN 60 60 60 60 60 60 60 60 60 52 DAYS **HUNTER TRIPS** PER DAY 53 23.5* 41 41 49 44 43 35 37.1 40.4 GOOSE SEASON **HUNTER TRIPS** PER DAY SELF-NA NA 7.5 10.9 NA NA NA NA NA 9.6 REGISTRATION DUCK SEASON

Table 2. Allegan Managed Area Hunter and Harvest Summary from 2011-2020 (* denotes combinedself-registration and draw total)

CATEGORY	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
GEESE HARVESTED PER HUNTER TRIP	0.19	0.14	0.31	0.26	0.21	0.28	0.29	0.23	0.17	.18*
DUCKS HARVESTED PER HUNTER TRIP SELF- REGISTRATION	NA	0.63	1.1	0.65						

Table 3. Daily Farm Unit hunter numbers, goose harvest, and duck harvest from the 2020-21 AlleganGMU Managed Goose Hunt drawings.

DATE	TOTAL PARTIES	PARTIES HUNTED	HUNT TRIPS	GEESE KILLED	ACCUM. TOTAL OF GEESE KILLED	GEESE PER HUNT TRIP	DUCKS KILLED	ACCUMULATED TOTAL OF DUCKS KILLED
11/7	32	32	113	5	5	0.044	2	2
11/8	14	14	27	5	10	0.185	0	2
11/14	17	17	33	1	11	0.030	0	2
11/28	11	11	24	3	14	0.125	0	2
11/29	8	7	15	0	14	0.000	0	2
12/5	7	7	14	0	14	0.000	0	2
12/6	4	4	6	3	17	0.500	0	2
12/19	32	32	82	9	26	0.110	0	2
12/20	9	9	17	0	26	0.000	0	2
12/26	36	35	85	5	31	0.059	4	6
12/27	18	18	28	2	33	0.071	2	8
1/2	14	14	36	18	51	0.500	NA	NA
1/3	21	21	39	13	64	0.333	NA	NA
1/9	25	25	68	0	64	0.000	NA	NA
1/10	11	11	26	0	64	0.000	NA	NA
1/16	28	27	84	12	76	0.143	NA	NA
1/17	28	26	68	0	76	0.000	NA	NA
1/23	14	14	40	0	76	0.000	NA	NA
1/24	11	10	23	2	78	0.087	NA	NA
1/30	14	14	35	17	95	0.486	NA	NA
1/31	14	14	40	7	102	0.175	NA	NA
2/6	9	8	19	15	117	0.789	NA	NA
2/7	5	5	13	6	123	0.462	NA	NA
2/13	19	19	58	20	143	0.345	NA	NA
2/14	6	6	12	1	144	0.083	NA	NA
TOTALS FOR ALL DATES	407	400	1005	NA	144	0.143	NA	8

Table 4. Daily Farm Unit goose hunter numbers and goose harvest through self-registration for2020/2021 Allegan GMU season.

SEPTEMBER YOUTH4220.5011/1015380.1911/1116380.0011/127080.0011/1312190.0811/2617090.0011/2710090.0012/1161100.0612/20000.0012/2141120.0012/2141120.0712/23140120.0012/24141130.0712/2587200.8812/29100200.0012/31190270.3212/31190270.001/1287340.251/115260.131/115260.131/14245620.211/15246680.251/142012800.601/2617131030.761/2761810.171/281341080.002/2301080.002/2301080.002/3401080.002/42221000.97	HUNT DATE	HUNTER TRIPS	KILLS	ACCUMULATED GEESE KILL TOTAL	GEESE PER HUNT TRIP
11/10 15 3 5 0.20 11/11 16 3 8 0.19 11/12 7 0 8 0.00 11/13 12 1 9 0.08 11/26 17 0 9 0.00 11/27 10 0 9 0.00 12/1 16 1 10 0.06 12/2 0 0 0 0.00 12/3 2 0 10 0.00 12/3 2 0 10 0.00 12/24 14 1 13 0.07 12/25 8 7 20 0.88 12/29 10 0 27 0.32 12/30 22 7 27 0.32 12/31 19 0 27 0.00 1/1 28 7 34 0.25 1/15 27 11 45	SEPTEMBER	4	2	2	0.50
II/II 16 3 8 0.19 II/12 7 0 8 0.00 II/13 12 1 9 0.08 II/26 17 0 9 0.00 II/27 10 0 9 0.00 12/1 16 1 10 0.06 12/2 0 0 10 0.00 12/3 2 0 10 0.00 12/3 2 0 10 0.00 12/3 4 0 12 0.00 12/23 14 0 12 0.00 12/24 14 1 13 0.07 12/25 8 7 20 0.88 12/29 10 0 20 0.00 12/30 22 7 27 0.32 12/31 19 0 27 0.00 1/1 28 7 34	YOUTH				
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12/2 0 10 0.00 12/3 2 0 10 0.00 12/4 6 1 11 0.17 12/22 14 1 12 0.07 12/23 14 0 12 0.00 12/24 14 1 13 0.07 12/25 8 7 20 0.88 12/29 10 0 20 0.00 12/30 22 7 27 0.32 12/31 19 0 27 0.00 1/1 28 7 34 0.25 1/1 28 7 0.41 16 1/6 16 5 50 0.31 1/15 27 11 45 0.41 1/6 16 4 54 0.25 1/12 15 2 56 0.13 1/13 2 1 57 0.50	11/ 27	10	0	9	0.00
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12/22141120.0712/23140120.0012/24141130.0712/2587200.8812/29100200.0012/30227270.3212/31190270.001/1287340.251/52711450.411/6165500.311/7180500.001/8164540.251/12152560.131/1321570.501/14245620.211/15246680.251/192012800.601/2061810.171/21144850.291/221341080.311/231341080.311/24501080.002/2301080.002/3401080.002/3401080.002/42221100.09	12/3	2	0	10	0.00
12/23 14 0 12 0.00 12/24 14 1 13 0.07 12/25 8 7 20 0.88 12/29 10 0 20 0.00 12/30 22 7 27 0.32 12/31 19 0 27 0.00 1/1 28 7 34 0.25 1/5 27 11 45 0.41 1/6 16 5 50 0.31 1/7 18 0 50 0.00 1/8 16 4 54 0.25 1/12 15 2 56 0.13 1/13 2 1 57 0.50 1/14 24 5 62 0.21 1/19 20 12 80 0.60 1/20 6 1 81 0.17 1/21 14 4 85	12/4	6	1	11	0.17
12/24141130.0712/2587200.8812/29100200.0012/30227270.3212/31190270.001/1287340.251/52711450.411/6165500.311/7180500.001/8164540.251/12152560.131/1321570.501/14245620.211/15246680.251/192012800.601/2061810.171/21144850.291/22195900.261/2617131030.761/27611040.171/281341080.311/29501080.002/2301080.002/3401080.002/42221100.09	12/22	14	1	12	0.07
12/2587200.8812/29100200.0012/30227270.3212/31190270.001/1287340.251/52711450.411/6165500.311/7180500.001/8164540.251/12152560.131/1321570.501/14245620.211/15246680.251/192012800.601/2061810.171/21144850.291/22195900.261/2461040.171/25301031/2617131031/27611041/281341082/2301082/3401082/3401082/3401082/3401082/3401082/321102/32100	12/23	14	0	12	0.00
12/29100200.0012/30227270.3212/31190270.001/1287340.251/52711450.411/6165500.311/7180500.001/8164540.251/12152560.131/1321570.501/14245620.211/15246680.251/192012800.601/2061810.171/21144850.291/22195900.261/231341080.311/2461040.171/25301080.002/24301080.002/3401080.002/3221100.09	12/24	14	1	13	0.07
12/30227270.3212/31190270.001/1287340.251/52711450.411/6165500.311/7180500.001/8164540.251/12152560.131/1321570.501/14245620.211/15246680.251/192012800.601/2061810.171/21144850.291/22195900.261/231341080.311/24501080.002/2301080.002/2301080.002/3401080.002/42221100.09	12/25	8	7	20	0.88
12/31190270.001/1287340.251/52711450.411/6165500.311/7180500.001/8164540.251/12152560.131/1321570.501/14245620.211/15246680.251/192012800.601/2061810.171/21144850.291/22195900.261/2617131030.761/27611040.171/281341080.311/29501080.002/2301080.002/3401080.002/42221100.09	12/29	10	0	20	0.00
1/1287340.251/52711450.411/6165500.311/7180500.001/8164540.251/12152560.131/1321570.501/14245620.211/15246680.251/192012800.601/2061810.171/21144850.291/22195900.261/2617131030.761/27611040.171/281341080.311/29501080.002/2301080.002/3401080.002/3401080.002/42221100.09	12/30	22	7	27	0.32
1/52711450.411/6165500.311/7180500.001/8164540.251/12152560.131/1321570.501/14245620.211/15246680.251/192012800.601/2061810.171/21144850.291/22195900.261/2617131030.761/27611040.171/281341080.311/29501080.002/2301080.002/3401080.002/3401080.002/42221100.09	12/31	19	0	27	0.00
1/6165500.311/7180500.001/8164540.251/12152560.131/1321570.501/14245620.211/15246680.251/192012800.601/2061810.171/211444850.291/22195900.261/231331030.761/24611040.171/25301080.002/2301080.002/3401080.002/3401080.002/42221100.09	1/1	28	7	34	0.25
1/7180500.001/8164540.251/12152560.131/1321570.501/14245620.211/15246680.251/192012800.601/2061810.171/21144850.291/22195900.261/2617131030.761/27611040.171/281341080.311/29501080.002/2301080.002/3401080.002/42221100.09	1/5	27	11	45	0.41
1/8164540.251/12152560.131/1321570.501/14245620.211/15246680.251/192012800.601/2061810.171/211444850.291/22195900.261/2617131030.761/27611040.171/281341080.311/29501080.002/2301080.002/3401080.002/42221100.09	1/6	16	5	50	0.31
1/12152560.131/1321570.501/14245620.211/15246680.251/192012800.601/2061810.171/21144850.291/22195900.261/2617131030.761/27611040.171/281341080.311/29501080.002/2301080.002/3401080.002/42221100.09	1/7	18	0	50	0.00
1/1321570.501/14245620.211/15246680.251/192012800.601/2061810.171/21144850.291/22195900.261/2617131030.761/27611040.171/281341080.311/29501080.002/2301080.002/3401080.002/42221100.09	1/8	16	4	54	0.25
1/14245620.211/15246680.251/192012800.601/2061810.171/21144850.291/22195900.261/2617131030.761/27611040.171/281341080.311/29501080.002/2301080.002/3401080.002/42221100.09	1/12	15	2	56	0.13
1/15246680.251/192012800.601/2061810.171/21144850.291/22195900.261/2617131030.761/27611040.171/281341080.311/29501080.002/2301080.002/3401080.002/42221100.09	1/13	2	1	57	0.50
1/192012800.601/2061810.171/21144850.291/22195900.261/2617131030.761/27611040.171/281341080.311/29501080.002/2301080.002/3401080.002/42221100.09	1/14	24	5	62	0.21
1/2061810.171/21144850.291/22195900.261/2617131030.761/27611040.171/281341080.311/29501080.002/2301080.002/3401080.002/42221100.09	1/15	24	6	68	0.25
1/21144850.291/22195900.261/2617131030.761/27611040.171/281341080.311/29501080.002/2301080.002/3401080.002/42221100.09	1/19	20	12	80	0.60
1/22195900.261/2617131030.761/27611040.171/281341080.311/29501080.002/2301080.002/3401080.002/42221100.09	1/20	6	1	81	0.17
1/2617131030.761/27611040.171/281341080.311/29501080.002/2301080.002/3401080.002/42221100.09	1/21	14	4	85	0.29
1/27611040.171/281341080.311/29501080.002/2301080.002/3401080.002/42221100.09	1/22	19	5	90	0.26
1/281341080.311/29501080.002/2301080.002/3401080.002/42221100.09	1/26	17	13	103	0.76
1/29501080.002/2301080.002/3401080.002/42221100.09	1/27	6	1	104	0.17
2/2301080.002/3401080.002/42221100.09	1/28	13	4	108	0.31
2/3401080.002/42221100.09	1/29	5	0	108	0.00
2/4 22 2 110 0.09	2/2	3	0	108	0.00
	2/3	4	0	108	0.00
2/5 20 14 124 0.70	2/4	22	2	110	0.09
	2/5	20	14	124	0.70

HUNT DATE	HUNTER TRIPS	KILLS	ACCUMULATED GEESE KILL TOTAL	GEESE PER HUNT TRIP
2/9	15	9	133	0.60
2/10	8	6	139	0.75
2/11	9	2	141	0.22
2/12	19	4	145	0.21
TOTALS FOR ALL DATES	576	NA	145	.25

Table 5. Daily Farm Unit duck hunter numbers and duck harvest through self-registration for 2020season.

DATE	HUNTER TRIPS	KILLS	ACCUMULATED DUCK KILLS	DUCKS PER HUNT TRIP
TEAL	2	0	0	0.00
YOUTH HUNT	4	0	0	0.00
10/10	36	28	28	0.78
10/11	40	83	111	2.08
10/13	11	3	114	0.27
10/14	1	1	115	1.00
10/15	6	7	122	1.17
10/16	14	7	129	0.50
10/17	15	6	135	0.40
10/18	12	17	152	1.42
10/20	10	2	154	0.20
10/21	3	4	158	1.33
10/22	5	6	164	1.20
10/23	10	14	178	1.40
10/24	26	9	187	0.35
10/25	15	9	196	0.60
10/27	17	16	212	0.94
10/28	7	3	215	0.43
10/29	17	11	226	0.65
10/30	8	4	230	0.50
10/31	9	2	232	0.22
11/1	50	36	268	0.72
11/3	6	8	276	1.33
11/4	2	0	276	0.00
11/5	10	1	277	0.10
11/6	8	0	277	0.00
11/8	4	1	278	0.25
11/10	15	0	278	0.00
11/11	16	5	283	0.31
11/12	7	1	284	0.14
11/13	12	5	289	0.42

DATE	HUNTER TRIPS	KILLS	ACCUMULATED DUCK KILLS	DUCKS PER HUNT TRIP
11/15	17	17	306	1.00
11/17	8	0	306	0.00
11/18	4	0	306	0.00
11/19	4	2	308	0.50
11/20	5	1	309	0.20
11/21	3	0	309	0.00
11/22	15	6	315	0.40
11/24	13	1	316	0.08
11/25	8	5	321	0.63
11/26	17	1	322	0.06
11/27	10	4	326	0.40
11/29	0	0	326	0.00
12/1	16	0	326	0.00
12/2	1	0	326	0.00
12/3	2	0	326	0.00
12/4	5	0	326	0.00
12/5	4	13	339	3.25
12/6	5	8	347	1.60
12/26	2	2	349	1.00
12/27	5	3	352	0.60
TOTALS FOR ALL DATES	542	NA	352	0.65