



# Nayanquing Point State Wildlife Area 2020 Annual Report



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## General Introduction

One of Michigan's Seven Wetland Wonders, the Nayanquing Point State Wildlife Area (NPSWA) is located 3 miles north of Linwood, on the western shore of Saginaw Bay in Bay County, Michigan. This 1,505-acre wildlife area consists of four impounded agricultural units totaling 612 acres, six impounded marsh units totaling 747 acres, and 146 acres of wetlands and associated uplands, 9 acres of which are coastal marsh. The area is divided into 398 acres of seasonal refuge (Sept. 1- Jan. 1), 961 acres of permit-only hunting area, 144 acres that are open to hunting without a permit, and 2 acres that are posted as a safety zone.

## Area Goals and Management Emphasis (GPS)

The goals of the NPSWA are to improve and preserve vital wetland habitat; provide a refuge and food supply for migrating waterfowl; to provide managed hunting opportunities for waterfowl hunters; to provide hunting opportunities for other wildlife species when possible; and to provide non-hunting wildlife-related recreational opportunities.

The NPSWA, a managed waterfowl hunt area check station, is a site with considerable public contact. The operation of this check station is important in providing high-quality recreational experiences and creating positive public interactions with the DNR. Waterfowl abundance and harvest data that are collected at managed area check stations also provide information on harvest and migration timing across the southern portion of the state. This information is important for annual waterfowl hunting regulation discussions.

The operation of managed waterfowl area check stations is identified as a high priority action for the Wildlife Division and meets the following Guiding Principles and Strategies (GPS) goals and objectives:

Goal 1: Manage for healthy and sustainable populations of wildlife species.

Objective 1.2: Conduct research, monitoring, and assessments to improve management of wildlife populations.

Goal 4: Enhance sustainable wildlife-based recreation use and enjoyment.

Objective 4.1: Expand opportunities for people to engage in hunting, trapping, and wildlife-based recreation.

Objective 4.2: Increase the retention rate of hunting and trapping license purchasers.

Objective 4.3: Increase the recruitment of hunting and trapping license purchasers.

Objective 4.4: Increase retention of participants in wildlife-based recreation.

Objective 4.5: Increase recruitment of participants in wildlife-based recreation.

Goal 5: Improve and maintain public communication, strong relationships, and partnerships.

Objective 5.1: Expand education and outreach efforts.

The goals of managed waterfowl area check station operations are focused on the ability to achieve high quality hunting experiences for the hunting public. This year due to COVID-19, opportunities for interactions with the public were kept to a minimum. However, the collection of important harvest and hunter-activity data, and the ability to continue to conduct weekly waterfowl abundance surveys allowed us to achieve these goals.

## Wildlife Production and Use Estimates

Weather and habitat conditions in the spring and summer months were nearly perfect. High temperatures ranged from 56-90 degrees with lows ranging 44-70 degrees. Throughout the growing season there was below average precipitation to drought conditions late in the summer. Despite the range in temperature, precipitation and high Great Lakes water levels, crop production was good to excellent in all fields.

## Significant Habitat Management

Since 2014, water levels in the Lake Michigan-Huron basin have increased, reversing the low water trend that preceded it. The traditional month for flooding at NPSWA has been September, however we began gravity flooding in August to prepare for the early goose and teal seasons.

Fall flooding began the last week in August in both the refuge, south field, and north field to stage birds early for the September teal season. Flooding continued slowly until mid-October. A gradual schedule was set in place to ensure that the refuge was completely flooded before the opening weekend and that 90% of the cropped areas were flooded for opening weekend. All the marsh units were slightly higher than last year due to unstable high-water conditions; several large breaches in the east marsh sand barrier were highly noticeable by the end of the waterfowl season and resulted in this unit largely fluctuating with Saginaw Bay water levels.

To maintain crop health, we shift all hunting and buffer strips of corn every three years. This year marks the second year where corn was planted on both sides of the “motor ditch.” NPSWA staff planted 71 acres of corn across the area between June 17<sup>th</sup> and 24<sup>th</sup>. A total of 38 acres of milo/millet/sorghum mix was planted across the area. NPSWA staff started planting buckwheat on July 7<sup>th</sup> and finished with 154 acres on July 29<sup>th</sup>.

## Land Acquisition Update

No land was acquired at the NPSWA in 2020.

## Area/Facility Maintenance

Despite teleworking status and a stay at home order in the spring, staff had nearly perfect conditions upon returning that all normal facility and habitat maintenance occurred including the following major projects.

- Major repair/rebuild occurred on Mallard Rd in September. Approximately 1,000 ton of aggregate was used to fill several large potholes measuring 400 sq ft each. These holes were created by high water levels and wind events compounded by erosion and vehicle traffic during the spring and summer.
- Dredging on north supply channel inlet from Bay was needed again this year due to storm damage and wind driven erosion of the shoreline during the spring.
- A comprehensive update to the area’s popular observation tower (new decking, railing, and stairs) was completed by Ripke Construction in March.
- Several dike repairs including patching holes/leaks on the south and middle field and the refuge were completed late in the summer.

## Equipment

No equipment was purchased at the NPSWA in 2020.

## Special Projects

The Wildlife Division partnered with Pheasants Forever and several community partners (e.g., Bay Area Community Foundation) on a DNR Habitat Grant that funded contract brush removal and a follow-up herbicide treatment on the NPSWA satellite parcel commonly referred to as Townline 16. The goal of this project is to reclaim a diverse switchgrass grassland that was being overtaken by invasive autumn olive.

## Recreational, Educational Activities, and Special Events

Bird watching is the major recreational activity at NPSWA, surpassing even the number of hunting trips, with thousands of people from all over the United States and Canada visiting the wildlife area throughout the year. NPSWA is also an important stopping point along the [Saginaw Bay Birding Trail](#).

The federal youth and veteran's waterfowl hunt weekend was held September 19-20, 2020 through a self-serve registration process. A total of eighty-five hunters harvested eighty ducks and four geese.

An early teal season occurred statewide from September 1-16<sup>th</sup>. This season ran concurrently with the opening two weeks of the early goose season. This year was the most successful teal season for Nayanquing Point SWA; several zones on the area were flooded specifically for the teal season and hunters took advantage of getting in the field for these opportunities. Two hundred seven hunter trips harvested two hundred four teal and twenty-four geese.

Due to COVID-19, no formal events were held including the spring and fall open house and youth hunt events.

## Trapping

For the 2019-20 trapping season, three permits were issued for NPSWA and eight for Wigwam Bay State Wildlife Area (WBSWA). Only two of those issued permits went unused; the remaining trappers' success is documented below. (Tables 1 and 2)

**Table 1.** Trapping harvest at NPSWA, 2010-2020.

Season	Permits Issued	Permits Used	Muskrat	Beaver	Mink	Otter	Raccoon	Weasel	Opossum
2019-20	4	3	486	3	6	0	0	3	0
2018-19	3	2	879	11	19	0	2	6	0
2017-18	6	3	603	11	6	0	0	2	0
2016-17	8	3	383	0	3	0	4	3	0
2015-16	8	4	383	1	9	0	1	0	0
2014-15	10	6	559	0	23	0	7	0	1
2013-14	17	9	673	4	9	1	6	2	11
2012-13	12	3	413	5	21	0	13	0	0

Season	Permits Issued	Permits Used	Muskrat	Beaver	Mink	Otter	Raccoon	Weasel	Opossum
2011-12	12	3	571	4	16	0	6	2	0
2010-11	12	6	417	2	7	0	0	4	0
<b>TOTAL</b>	<b>92</b>	<b>42</b>	<b>5,367</b>	<b>41</b>	<b>119</b>	<b>1</b>	<b>39</b>	<b>22</b>	<b>12</b>

**Table 2.** Trapping harvest at WBSWA, 2010-2020.

Season	Permits Issued	Permits Used	Muskrat	Beaver	Mink	Otter	Raccoon	Weasel	Opossum
2019-20*	9	7	328	35	1	0	23	0	0
2018-19	8	7	919	68	4	0	0	0	0
2017-18	10	8	1,106	31	4	0	1	0	0
2016-17	9	8	878	28	2	0	5	0	0
2015-16	8	8	811	30	1	1	10	0	0
2014-15	11	8	1,365	16	10	1	2	0	0
2013-14	11	9	1,450	34	8	0	7	0	0
2012-13	12	7	1,214	33	21	1	17	4	0
2011-12	8	2	522	11	4	0	6	0	5
2010-11	8	3	916	17	2	1	7	16	0
<b>TOTAL</b>	<b>94</b>	<b>67</b>	<b>9,509</b>	<b>303</b>	<b>57</b>	<b>4</b>	<b>78</b>	<b>20</b>	<b>5</b>

\*Results for the 2019-2020 season exclude one trapping report that has yet to be returned.

## Waterfowl Banding

**Table 3.** Species and number of waterfowl banded at NPSWA, 2010-2020.

Year	Canada Geese	Mallards	Wood Ducks	Totals
2020*	N/A	N/A	N/A	N/A
2019	0	0	4	4
2018	0	0	31	31
2017	0	0	79	79
2016	0	0	151	151
2015	66	46	53	165
2014	0	0	131	131
2013	0	0	170	170
2012	0	3	27	30
2011	0	3	77	80
2010	0	0	124	124
<b>Totals</b>	<b>66</b>	<b>52</b>	<b>847</b>	<b>965</b>

\*Due to reduced staffing/COVID-19 banding did not occur.



# Waterfowl Hunting Season

## Covid-19 Preparedness Plan

The following bulleted list was provided to the MWA's as a guideline for operations during the 2020 waterfowl season. Specifically, NPSWA was able to conduct all four (am/pm) opening weekend pre-registered drawings. Following that, only one morning draw was held daily, except Tuesdays when the area was closed. NPSWA conducted drawings outdoors with registration occurring through a plexiglass window. Once the party leader received a registration card, they were able to return to their vehicle and listen to the draw instructions and order over a FM transmitter. Hunters were able to choose their spot through a plexiglass window and then receive their permit for the area. All marsh areas were left out of the draw to allow hunters to self-register if they missed. All other changes due to COVID-19 are outlined below.

Area Operations - all seven (7) managed waterfowl hunt areas implemented the following protocols to reduce contacts between employees and the public:

- The public will not be allowed to enter check stations, draws will occur outdoors:
- Rules and updated conditions will be available on the DNR website to reduce the time and interactions between staff and hunters.
- Only the party leader will interact with staff (e.g., registers and selects hunting zone). Party leaders will be instructed to follow physical distancing and wear face coverings. Other party members will be instructed to stay in vehicles.
  - If other party members choose to wait in parking area, they will follow Executive Order rules (e.g., physical distancing, wearing face coverings).
- Plexiglass shields will be installed at check station windows to create a "walk up" registration and zone selection.
- Where logistically feasible a drive-up system to register parties will be used. The party leader would drive up to the window with a filled-out registration card and a number would be assigned to the party at that time.
- Once all parties have registered, party leaders will wait outside in the parking area and a public-address system (PA) or megaphone will be used to make announcements and announce the results of the draw.
  - Party leaders will be instructed to follow Executive Order rules (e.g., physical distancing, wearing face coverings) while waiting in the parking area. Signs will be clearly posted with this guidance.
  - Other party members will be asked to remain in their vehicles during the announcements and during the hunting zone selection.
- If other party members choose to wait in parking area, they will follow Executive Order rules (e.g., physical distancing, wearing face coverings).
- For registration, pens will be used that can be sanitized after use or we will provide disposable golf pencils. Staff can provide a container of sanitized pens and hunters can place used pens in a separate container to be sanitized later.
- Indoor restrooms will be closed. Outdoor portable toilets will be provided if approved and will be cleaned and sanitized regularly.
- Note that each area will have slightly differing methods to provide registration, draws, and zone selection under these options, depending on their existing conditions.
- Checking hunters' licenses upon registration will be eliminated and instead, hunters will be notified of the required licenses.
- Designation of individual and party hunting zones will be eliminated to simplify the hunting zone selection (e.g., all zones will be available in the draw regardless of party size).
- To minimize contact with the public, use of volunteers to assist with hunter registration and drawings will not be allowed.

- To minimize contact with the public, switching zones after the draw will not be allowed.
- To minimize contact with the public, adding hunters to a party after the draw will not be allowed.
- To minimize contact with the public, stand-by or leftover drawings will be eliminated, including any opening weekend reserved hunts. This eliminates another drawing and more interactions between the public and staff.
- Bag checks will be eliminated. Hunters will be instructed to fill out and return permit cards to a drop box.
- Sales of licenses in the check stations will be eliminated.
- All staff will wear face coverings and follow Wildlife Division, Department, and CDC guidelines. Do not touch face whenever interacting with the public.
- Cleaning and sanitation protocols will be followed as outlined in Wildlife Division Safety Protocol Response Plan (e.g., wipe down all surfaces that hunters may have touched after each draw).
- Sales of merchandise in the check station will be eliminated.
- Snacks (e.g., coffee, donuts) for sale or for free in the check station will be eliminated.
- Registration and zone selection areas will be closed after the drawing is complete. If hunters have questions, they will be provided with a phone number to call.
- If any of the areas experience low attendance at draws, (e.g., < 15 parties for a 5-day period), there will be a switch to a self-registration system. This is similar to past guidance that, with the approval of the Regional Supervisor, normal managed area drawings may be cancelled if extreme weather results in low hunter participation. Area managers will post amended check station hunting rules a minimum of two days prior to any changes, and changes will be communicated online.

## General Introduction

The 2020-21 waterfowl season was the 45<sup>th</sup> season of managed waterfowl hunting at NPSWA. This season marks the 25<sup>th</sup> year of the south zone designation. The NPSWA offers both flooded cropland and marsh hunting opportunities. There are 25 cornfield zones and 3 marsh units managed for either singles or parties.

## Weather and Habitat Conditions

September temperatures were mild with little rain and light winds leading up to the first week in October. October temperatures were cooler with below average precipitation. The first cold snap was October 30<sup>th</sup> with 37 degrees for the high. The peak refuge count was during the last week in October. The following week bird numbers decreased by 50%. This year, with little to no ice, hunting continued until the end of the season, which is not typical for NPSWA.

## Migration and Waterfowl Numbers

Increased numbers of blue- and green-winged teal, wood ducks, mallards and black ducks were observed in the refuge and along the Saginaw Bay shoreline along NPSWA beginning in August. Waterfowl staging in the refuge started earlier this year as flooding was initiated earlier to anticipate the early teal, youth and veteran's hunt, and later opener. Peak numbers were observed prior to the opener this year and through the last week in October to the first week in November. Fewer mallards were observed than in the past; a slight change to the cropped refuge, which included a variety moist-soil plants, provided a loafing area that was attractive to several waterfowl species. Diver ducks remained scattered throughout the Saginaw Bay area late in October and were scarcely visible inside the refuge area (Table 4).

**Table 4.** Estimated weekly waterfowl numbers for the NPSWA Refuge, 2020.



Date	Mallards	Total ducks	Total geese
Sept 5	200	350	0
Sept 12	990	1,382	8
Sept 19	1,340	2,025	125
Sept 26	1,425	2,275	75
Oct 3	2,200	3,599	100
Oct 10	3,400	5,260	150
Oct 17	4,300	7,000	0
Oct 24	5,100	9,125	120
Oct 31	7,050	16,087	150
Nov 7	4,750	8,890	200
Nov 14	2,500	5,125	500
Nov 21	1,300	2,170	0
Nov 28	750	1,600	0
Dec 5	150	1,200	0
Dec 12	0	0	0
Dec 19	0	0	0

## Season Dates and Area Regulations

Season	Dates	Days Open	Limit	
Duck	Early teal	Sept. 1-16	16	6
Duck	Youth/Veteran's waterfowl	Sept. 19-20	2	6
Duck	Regular season	Oct. 10 - Dec. 6, Dec. 26 - 27	60	6
Goose	Early season	Sept. 1 - 30	25	5
Goose	Regular season	Oct. 10 - Dec. 6, Dec. 26 - 27	60	5
Goose	Late season	Jan. 23 - Feb. 8	22	5

## Hunting Season Results

The 2020-21 waterfowl season was the 45<sup>th</sup> season of managed waterfowl hunting at NPSWA and the 24<sup>th</sup> consecutive year with a 60-day duck season. This season was also the 25<sup>th</sup> season NPSWA has been in the south zone. The season harvest totals were 4,365 ducks across 3,282 hunter trips for a 1.33 ducks per hunter trip average. This was the second highest harvest and ducks per hunter trip since NPSWA has been in the south zone.

The 2020-21 Canada goose harvest at NPSWA was the highest recorded since 1995, which was the last year NPSWA was in the middle zone. The Sept. 1-30 early season resulted in the harvest of 77 Canada geese; during the regular season hunters harvested an additional 44 Canada geese; total harvest was 121.

## Harvest and Hunter Use

NPSWA hosted 85 hunter trips with harvest totals of 80 ducks and 4 geese during the September 19-20<sup>th</sup> federal youth and veteran's waterfowl hunt. NPSWA also held two youth priority draws during the regular

waterfowl season with the first on opening day, October 10<sup>th</sup> being a pre-registered afternoon hunt with 21 of the 35 parties showing. The second youth hunt was on October 24<sup>th</sup> with 33 parties registering for an all-day hunt. This season, the managed waterfowl hunt areas also held a veteran's priority all-day hunt on Wednesday, November 11<sup>th</sup> in which 24 parties participated. Due to Covid-19 modified operations, no standby drawings were allowed in 2020.

Table 5 denotes waterfowl harvest and hunter trips by week at the NPSWA. Number of season days per month, waterfowl harvest, hunter trips, ducks per hunter trips, percent of harvest, and number of ducks harvested per day by season month are summarized in Table 6. Table 7 summarizes duck harvest by zone and week. Refer to Appendices A-C for further breakdowns of harvest by year, day, and field/zone.

**Table 5.** Weekly waterfowl harvest and hunter trips at NPSWA, 2020.

Date	Ducks	Geese	Hunter Trips	Cripples	Ducks/Hunter Trip
9-1 to 9-16	204	24	207	31	0.99
9-17 to 9-30	NA	53	37	0	NA
9-19 to 9-20	80	4	85	21	0.91
10-10 to 10-16	1,378	19	663	179	2.08
10-17 to 10-23	759	4	453	95	1.68
10-24 to 10-30	721	5	450	91	1.60
10-31 to 11-6	559	0	381	85	1.47
11-7 to 11-13	199	6	290	30	0.69
11-14 to 11-20	214	2	263	37	0.81
11-21 to 11-27	131	0	287	17	0.46
11-28 to 12-4	112	4	170	15	0.66
12-5 to 12-6	8	0	33	3	0.24
12-26 to 12-27	0	0	0	0	0.00
<b>Totals</b>	<b>4,365</b>	<b>121</b>	<b>3,282</b>	<b>604</b>	<b>1.33</b>

**Table 6.** Summary of season by month, NPSWA 2020.

Month	Number of Days	Ducks Harvested	Hunter Trips	Ducks per hunter trip	Percent of Harvest	Ducks per Day
September	18	284	292	0.96	6.4%	16
October	22	2,962	1,637	1.81	69.9%	135
November	30	1,085	1,259	0.86	24.9%	36
December	8	34	94	0.36	0.8%	4
<b>Totals</b>	<b>78</b>	<b>4,362</b>	<b>3,282</b>	<b>1.33</b>	<b>100%</b>	<b>56</b>

**Table 7.** Duck harvest by zone and week at NPSWA, 2020.

Zones	Sept 1-16	Sept 19-20	Oct 10-16	Oct 17-23	Oct 24-30	Oct 31 Nov 6	Nov 7-13	Nov 14-20	Nov 21-27	Nov 28 Dec 4	Dec 5-6	Dec 26-27	Totals
2-3	0	0	18	23	47	14	2	10	9	0	0	0	123
4-6	1	0	126	66	90	43	11	29	19	10	0	0	395
7	0	0	7	3	4	3	0	9	0	0	0	0	26
8-9	90	12	64	32	16	29	16	7	0	0	0	0	266
10-12	0	0	89	90	79	59	26	25	22	13	0	0	403
13-15	0	8	166	135	114	121	51	43	16	20	0	0	674
16-18	0	1	178	123	84	53	28	17	6	12	0	0	502
19-20	13	9	141	77	73	40	10	7	5	1	0	0	376
21-22	0	2	121	40	49	56	10	21	3	4	0	0	306
23-24	17	15	196	69	60	33	12	17	6	7	0	0	432
25-26	7	26	117	36	26	18	11	3	2	2	0	0	248
27-30 south marsh	3	0	11	5	9	11	7	0	1	0	0	0	47
31-42 north marsh	23	6	48	26	7	25	9	11	14	7	0	0	176
43-66 east marsh	50	1	96	34	63	54	6	15	28	36	8	0	391
<b>Totals</b>	<b>204</b>	<b>80</b>	<b>1,378</b>	<b>759</b>	<b>721</b>	<b>559</b>	<b>199</b>	<b>214</b>	<b>131</b>	<b>112</b>	<b>8</b>	<b>0</b>	<b>4,365</b>

## Permits and Harvest

NPSWA conducted pre-registration for the opening weekend of the 2020 waterfowl season in order to reduce party numbers due to COVID-19 and to prepare for next season's move to the middle zone. Both a morning and afternoon hunt were held for opening weekend only with 35 pre-registered parties for each hunt period. The Saturday pm hunt was a youth preference hunt and there were no stand-by drawings held for any pre-registered hunt. On Saturday morning 33 of 35 parties and on Saturday afternoon 21 of 35 parties registered for drawings. On Sunday morning 32 of 35 parties and on Sunday afternoon 27 of 35 parties registered for the drawings. For opening weekend, 347 hunters harvested 727 ducks and 12 geese across the four hunt periods, for a 2.1 duck/hunter trip ratio.

The marsh areas were left out of the draw beginning the first Monday after opening weekend for self-registration to provide additional opportunity for those who were unsuccessful or absent during the morning draw. Self-registration for all the marsh areas continued throughout the season.

After opening weekend, NPSWA held 48 draws for single all-day hunts; there were no hunt drawings on Tuesdays, which were designated as rest days. Draw sizes ranged between 3 and 71. At 71 registered parties each, Monday, October 12<sup>th</sup> and Sunday, November 1<sup>st</sup> were the highest draws of the season. With a draw size of 3, Sunday, December 6<sup>th</sup>, which was the last day of the season, saw the lowest number of registered parties. The average draw size across the season was 31.

## Species Harvest

Mallard harvest was only 39% of the total species harvest, followed by green-winged and blue-winged teal (24.8%), and wood duck (12.8%). Mallard, wigeon and redhead all showed a noticeable decrease in harvest over last year. (Table 8). Other notable changes included a substantial increase in green-winged and blue-winged teal, wood duck, pintail, shoveler and gadwall harvest over last year. Compared to the 10-year average, significant increases include blue-winged teal (257%), wood duck (126%), shoveler (93%) and green-winged teal (49%). Wigeon harvest was the only significant decline from the 10-year average at 14%. Species harvest by week, which tracks movement of birds through the area, is found in Table 9.

**Table 8.** Species composition and comparison of harvest at NPSWA, 2011-20.

Species	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	10 year avg	45 year avg
Mallard	1,704	1,941	1,797	2,118	1,918	2,079	1,278	1,402	982	1,932	1,715.1	2,475.2
Green-winged teal	793	463	511	715	543	635	390	499	405	372	532.6	617.1
Wood duck	557	269	293	211	290	121	201	147	193	180	246.2	151.9
Black duck	136	137	101	91	116	120	85	63	59	105	101.3	176.2
Blue-winged teal	289	87	51	44	71	23	60	47	106	33	81.1	87.8
Pintail	160	62	103	197	208	148	88	183	81	125	135.5	166.6
Wigeon	147	249	157	181	216	164	188	113	107	204	172.6	144.1
Shoveler	108	54	39	45	104	31	36	55	37	51	56.0	51.1
Gadwall	129	94	101	109	165	79	88	46	54	58	92.3	55.4
Ring-necked	64	58	86	55	64	55	32	55	20	22	51.1	60.6
Redhead	75	133	57	36	61	63	121	37	9	22	61.4	45.0
Scaup	42	33	39	42	58	21	17	9	13	5	27.9	32.9
Bufflehead	66	64	63	37	21	16	15	10	11	17	32.0	13.7
Goldeneye	8	11	5	2	5	4	1	8	1	2	4.7	3.8
Ruddy duck	9	15	9	1	3	12	7	2	1	2	6.1	3.9
Canvasback	3	8	8	3	4	0	5	1	1	4	3.7	3.7
Merganser	18	32	17	16	15	28	20	26	7	27	20.6	17.3
Other	46	27	7	0	1	0	0	0	0	1	8.2	2.0
Unknown	11	5	2	4	3	1	12	20	14	16	8.8	23.1
<b>Total</b>	<b>4,365</b>	<b>3,742</b>	<b>3,446</b>	<b>3,907</b>	<b>3,866</b>	<b>3,600</b>	<b>2,644</b>	<b>2,723</b>	<b>2,101</b>	<b>3,178</b>	<b>3,357.2</b>	<b>4,124.4</b>

**Table 9.** Species harvest by week at NPSWA, 2020.

Species	Sept 1-16	Sept 19-20	Oct 10-16	Oct 17-23	Oct 24-30	Oct 31 Nov 6	Nov 7-13	Nov 14-20	Nov 21-27	Nov 28 Dec 4	Dec 5-6	Dec 26-27	Totals
Mallard	NA	26	402	241	208	311	149	171	106	84	6	0	1,704
GW Teal	19	6	158	177	306	101	13	10	2	1	0	0	793
BW Teal	185	22	50	17	12	2	0	1	0	0	0	0	289
Black Duck	NA	1	28	13	19	42	9	14	3	7	0	0	136
Pintail	NA	2	87	33	23	9	2	4	0	0	0	0	160
Shoveler	NA	0	26	33	20	18	0	3	7	1	0	0	108
Wigeon	NA	0	70	46	18	9	2	1	1	0	0	0	147
Gadwall	NA	1	43	30	28	17	1	0	4	5	0	0	129
Wood Duck	NA	22	412	84	27	4	5	1	1	0	1	0	557
Ring-necked	NA	0	27	11	12	7	6	1	0	0	0	0	64
Redhead	NA	0	41	18	9	3	2	1	1	0	0	0	75
Scaup	NA	0	19	7	9	2	3	1	0	1	0	0	42
Ruddy	NA	0	2	1	0	6	0	0	0	0	0	0	9
Bufflehead	NA	0	4	6	15	17	5	4	4	11	0	0	66
Goldeneye	NA	0	0	0	2	2	1	1	1	1	0	0	8
Canvasback	NA	0	1	0	2	0	0	0	0	0	0	0	3
Merganser	NA	0	1	2	8	5	1	0	1	0	0	0	18
Other	NA	0	3	35	3	3	0	1	0	0	1	0	46
Unknown	NA	0	4	5	0	1	0	0	0	1	0	0	11
<b>Total</b>	<b>204</b>	<b>80</b>	<b>1,378</b>	<b>759</b>	<b>721</b>	<b>559</b>	<b>199</b>	<b>214</b>	<b>131</b>	<b>112</b>	<b>8</b>	<b>0</b>	<b>4,365</b>

## Management Activities

In 2020, self-serve registration was implemented for all deer seasons except for the muzzleloader deer season, when a drawing was held. This registration system seemed to work well with the only complaint being the lack of permits at any given time in the permit box. From October 1<sup>st</sup> through December 6<sup>th</sup> there were a total of seventy-six permits issued with only one deer harvested. From December 14<sup>th</sup> through January 1<sup>st</sup> an additional sixty-three permits were issued with eight deer harvested.

In 2010, due to increasing deer numbers and associated crop damage to waterfowl hunting areas, it was decided that NPSWA conduct a managed deer hunt; this managed deer hunt was continued in 2020 but only for the muzzleloader season. The muzzleloader season in Zone 3 was open from December 4<sup>th</sup> – 13<sup>th</sup>, and, due to waterfowl season being open, the managed deer hunt began December 7<sup>th</sup>. During this muzzleloader season only one drawing was held on December 6<sup>th</sup>. For the hunt period December 7<sup>th</sup> through December 13<sup>th</sup> twenty-three permits were issued and five deer were harvested. Hunters could harvest deer based on the licenses that they had available (firearm, archery, antlerless, managed deer permit antlerless only). The only area of NPSWA that remained closed for both the muzzleloader and the late antlerless season was the triangle marsh refuges. (Table 11).

**Table 10.** Deer hunting permits issued and harvest at NPSWA 2010 – 2020.

Year	Number of permits up to the duck season opener-deer taken	Number of archery daily permits issued during waterfowl season - deer taken	Number of permits for muzzleloader/late archery/firearm - deer taken	Total number of permits issued - deer taken
2010	30 - 5	186 - 8	301 - 40	517 - 53
2011	16 - 5	82 - 3	229 - 13	327 - 21
2012	8 - 0	87 - 4	98 - 9	193 - 13
2013	14 - 0	74 - 3	108 - 7	196 - 10
2014	14 - 2	72 - 0	123 - 17	209 - 19
2015	24 - 3	99 - 1	97 - 13	220 - 17
2016	12 - 3	114 - 3	109 - 9	235 - 15
2017	18 - 3	64 - 0	68 - 8	150 - 11
2018	23 - 2	75 - 2	93 - 7	191 - 11
2019	23 - 1	58 - 2	79 - 6	160 - 9
2020	N/A	76 - 1*	86 - 13*	162 - 14
<b>Totals</b>	<b>182 - 24</b>	<b>987 - 27</b>	<b>1,391 - 142</b>	<b>2,560 - 193</b>

\*Numbers are combined for all archery permits; only one drawing was held for muzzleloader.

## Recommendations

- Continue to partner with Pheasants Forever, Michigan Duck Hunters Association, Michigan Audubon, Audubon Great Lakes, National Wild Turkey Federation, Great Lakes Sportsman’s Foundation, Ducks Unlimited, and Saginaw Basin Land Conservancy to implement area habitat goals.
- Eliminate party preference for all hunts.
- Continue to plant buffer strips of corn in the buckwheat fields between hunting zones in all fields.
- Continue to provide a diversity of hunting conditions in the north field (e.g., dry land later in season, scramble, or early teal water management).
- Continue to plant the refuge with a diversity of small grains (e.g., millet, barley, wheat) in strips going north to south as well as experimenting with moist-soil management when possible.
- Pre-registered hunts will occur in the future for opening weekend and possibly the second weekend of the waterfowl season due to NPSWA being located in the middle zone beginning in 2021.
- Research and evaluate the opportunity to place a universally accessible hunting blind on the area.
- Continue to rotate corn every three years for overall crop health.
- Continue to leave an opening on the west side of hunting strips for decoy placement.
- Use the self-serve registration process for late deer seasons.
- Convert marsh zones 27-30 into waterfowl refuge.

## Prominent Partners and Volunteers

Michigan Duck Hunters Association, Saginaw Bay Chapter: MDHA partners with NPSWA on various grants and participates in volunteer workdays on the area which include posting of area signage, tree removal, building of brush piles, picking up trash, building and preparing blinds for the hunting season, building and minor construction projects, parking lot maintenance and waterfowl banding activities. MDHA provides input on the management of NPSWA and holds their monthly meetings at the check station.

Without the generous support of MDHA and its membership this season NPSWA would not have been able to provide all the habitat that is critical to managed waterfowl hunt areas. MDHA, Saginaw Bay Chapter provided the monetary support to purchase small grain seed and all the fertilizer necessary for our corn program.

Ducks Unlimited: The Saginaw Bay DU chapter has been involved with several outreach events at NPSWA previously. This season due to covid-19 all outreach events were cancelled.

Saginaw Basin Land Conservancy, Michigan Audubon, and Audubon Great Lakes continue to provide partner support for the Saginaw Bay Birding Trail, and grant-funded habitat work, respectively.

Michigan Department of Natural Resources, Fisheries Division, Forest Resource Division, Parks and Recreation Division, and Law Enforcement Division all partner with NPSWA at various times on a myriad of projects. These partnerships include sharing of equipment, staff resources, and storage facilities.

Volunteers: Dave Hess continues to assume responsibility for the maintenance of the flag and flagpole at the headquarters building by replacing torn flags and line.

## Economic Benefits

NPSWA draws large numbers of hunters from across the state, greatly increasing the need of goods and services provided by local vendors. After visiting several of the local businesses, all indicated that NPSWA, or maybe the waterfowl hunting season in general, provided a positive economic impact on their businesses.

### Appendix A. NPSWA Managed Hunting Results, 1976-2020.

Season	Hunter Trips	Ducks Shot	Geese Shot	Ducks per Hunter Trip	Cripples	Percent of Cripples	Opener/Num. of Days	Ducks per Day	Ducks per Day (1st 30 days)
1976*	1,684	2,346	9	1.39	594	20.2	Oct. 6/40	167.5	NA
1977**	3,833	4,327	11	1.13	1,367	24.0	Oct. 12/44	127.2	137.5
1978***	3,819	4,047	46	1.06	892	18.1	Oct. 11/50	115.6	NA
1979	5,520	6,476	91	1.17	1,504	18.8	Oct. 4/50	129.5	NA
1980	4,437	6,263	30	1.41	1,707	21.4	Oct. 4/50	125.2	NA
1981	5,208	7,919	23	1.52	1,562	16.5	Oct. 3/50	158.3	237.9
1982	5,587	7,298	90	1.31	1,414	16.2	Oct. 2/50	145.9	216.7
1983	5,620	10,209	48	1.81	2,010	16.4	Oct. 1/50	205.4	304.6
1984	4,679	5,453	90	1.17	904	14.2	Oct. 6/40	136.3	NA
1985	5,194	7,020	154	1.35	1,484	17.5	Oct. 5/40	178.8	NA
1986	4,322	4,455	63	1.03	859	16.2	Oct. 4/40	111.3	NA
1987	4,611	5,161	96	1.12	1,291	20.0	Oct. 3/40	129.0	NA
1988	3,679	3,910	92	1.06	1,092	21.8	Oct. 8/30	131.6	131.6
1989	4,253	3,901	90	0.92	615	13.6	Oct. 7/30	130.0	130.0
1990	3,560	3,725	114	1.04	620	14.3	Oct. 6/30	120.7	120.7
1991	3,504	3,964	90	1.13	683	14.7	Oct. 12/30	137.5	137.5
1992	3,449	3,187	85	0.92	723	18.5	Oct. 10/30	106.2	106.2



Season	Hunter Trips	Ducks Shot	Geese Shot	Ducks per Hunter Trip	Cripples	Percent of Cripples	Opener/Num. of Days	Ducks per Day	Ducks per Day (1st 30 days)
1993	3,284	3,331	156	1.01	651	16.3	Oct. 9/30	111.0	111.0
1994	4,016	3,425	136	0.85	655	16.0	Oct. 1/40	85.6	NA
1995	4,467	5,608	145	1.25	787	12.3	Oct. 7/50	112.1	NA
1996	3,590	3,742	65	1.04	651	14.8	Oct. 12/50	74.8	NA
1997	3,674	3,908	35	1.06	538	12.1	Oct. 11/60	65.1	113.6
1998	4,196	3,938	53	0.94	501	11.1	Oct. 10/60	65.6	97.0
1999	4,231	4,329	81	1.02	532	10.9	Oct. 9/60	72.1	112.5
2000	3,145	2,248	103	0.71	356	13.6	Oct. 7/60	37.4	55.9
2001	3,311	3,444	63	1.04	398	10.3	Oct. 6/60	57.4	101.9
2002	3,322	5,233	14	1.57	633	10.8	Oct. 12/60	87.2	155.5
2003	3,292	3,328	35	1.01	340	9.3	Oct. 11/60	55.4	84.4
2004	3,361	3,208	74	0.95	404	11.2	Oct. 9/60	53.5	90.9
2005	2,685	2,955	44	1.11	431	12.7	Oct.15/60	49.3	85.8
2006	3,259	3,685	52	1.13	443	10.8	Oct.7/60	61.4	90.0
2007	2,204	2,189	50	0.99	218	9.0	Oct.6/60	36.5	54.3
2008	2,944	2,866	73	0.97	478	14.3	Oct.11/60	47.7	88.9
2009	2,869	2,598	69	0.91	369	12.4	Oct.10/60	43.3	73.5
2010	2,552	2,338	42	0.92	289	11.0	Oct. 9/60	38.9	71.4
2011	3,312	3,178	63	0.96	393	11.0	Oct. 8/60	53	60.8
2012	2,773	2,101	80	0.76	232	9.9	Oct. 6/60	35	53.7
2013	2,872	2,723	61	0.95	366	11.8	Oct. 12/60	45.4	85.5
2014	2,644	2,694	69	0.98	432	14.0	Oct. 11/67	40.2	76.2
2015	3,492	3,600	111	1.03	580	13.9	Oct. 10/67	53.7	80
2016	4,170	3,866	79	0.93	663	14.6	Oct. 8/67	57.7	84.4
2017	3,522	3,907	109	1.11	581	12.9	Oct. 14/67	58.3	115.3
2018	3,160	3,446	81	1.09	554	13.9	Oct. 13/76	45.3	109.6
2019	3,164	3,742	119	1.18	624	14.3	Oct. 12/78	48.0	117.4
2020***	3,282	4,365	121	1.33	604	12.2	Oct. 10/78	56.0	115.6

\*Totals from the first 14 days only, managed hunting suspended

\*\* Totals from the first 34 days only, managed hunting suspended

\*\*\*Totals from the first 35 days only, managed hunting suspended

\*\*\*\*Totals in 2020 reflect changes in MWA procedures due to COVID-19

**Appendix B.** NPSWA waterfowl harvest by day and hunt period (AM, PM) for the 2020 waterfowl seasons.

Date	Number of Parties	Number of Hunters	Cumulative hunter total	Goose harvest	Cumulative goose harvest	Duck harvest	Cumulative duck harvest
Sept 1-16 (early teal/goose)	self	207	207	24	24	204	204
Sept 17-30 (goose)	self	37*	NA	53	77	NA	NA
9-21	self	56	263	4	81	54	258
9-22	self	29	292	0	81	26	284
10-10** am	33	109	401	10	91	280	564
pm	21	69	470	1	92	153	717
10-11 am	32	97	567	0	92	178	895
pm	27	72	639	1	93	116	1,011
10-12 am	71	108	747	4	97	188	1,199
10-13	closed	NA	NA	NA	NA	NA	NA
10-14 am	49	72	819	0	97	201	1,400
10-15 am	55	71	890	0	97	156	1,556
10-16 am	51	65	955	3	100	106	1,662
10-17 am	58	106	1,061	1	101	148	1,810
10-18 am	67	89	1,150	1	102	201	2,011
10-19 am	24	54	1,204	0	102	83	2,094
10-20	closed	NA	NA	NA	NA	NA	NA
10-21 am	45	61	1,265	0	102	122	2,216
10-22 am	47	72	1,337	2	104	132	2,348
10-23 am	45	71	1,408	0	104	73	2,421
10-24 am	33	98	1,506	0	104	69	2,490
10-25 am	39	87	1,593	2	106	131	2,621
10-26 am	40	66	1,659	0	106	115	2,736
10-27	closed	NA	NA	NA	NA	NA	NA
10-28 am	39	64	1,723	1	107	169	2,905
10-29 am	57	67	1,790	0	107	168	3,073
10-30 am	45	68	1,858	2	109	69	3,142
10-31 am	36	71	1,929	0	109	104	3,246
11-01 am	71	80	2,009	0	109	222	3,468
11-02 am	46	56	2,065	0	109	91	3,559
11-03	closed	NA	NA	NA	NA	NA	NA
11-04 am	28	58	2,123	0	109	48	3,607
11-05 am	32	61	2,184	0	109	50	3,657
11-06 am	27	55	2,239	0	109	44	3,701
11-07 am	28	57	2,296	0	109	21	3,722
11-08 am	17	34	2,330	0	109	30	3,752
11-09 am	21	38	2,368	0	109	28	3,780
11-10	closed	NA	NA	NA	NA	NA	NA
11-11 am	24	64	2,432	4	113	59	3,839
11-12 am	24	50	2,482	0	113	19	3,858

\*goose only hunter trips not included in total

\*\*pre-registered am/pm hunts for the first weekend; one am hunt held daily excluding Tuesdays

Date	Number of Parties	Number of Hunters	Cumulative hunter total	Goose harvest	Cumulative goose harvest	Duck harvest	Cumulative duck harvest
11-13 am	27	47	2,529	2	115	42	3,900
11-14 am	24	52	2,581	0	115	13	3,913
11-15 am	46	67	2,648	0	115	85	3,998
11-16 am	13	27	2,675	1	116	25	4,023
11-17	closed	NA	NA	NA	NA	NA	NA
11-18 am	16	31	2,706	1	117	40	4,063
11-19 am	36	59	2,765	0	117	35	4,098
11-20 am	9	27	2,792	0	117	16	4,114
11-21 am	20	49	2,841	0	117	34	4,148
11-22 am	29	55	2,896	0	117	20	4,168
11-23 am	15	32	2,928	0	117	16	4,184
11-24	closed	NA	NA	NA	NA	NA	NA
11-25 am	23	49	2,977	0	117	33	4,217
11-26 am	19	55	3,032	0	117	19	4,236
11-27 am	22	47	3,079	0	117	9	4,245
11-28 am	12	35	3,114	0	117	14	4,259
11-29 am	9	23	3,137	0	117	16	4,275
11-30 am	26	51	3,188	1	118	56	4,331
12-01	closed	NA	NA	NA	NA	NA	NA
12-02 am	11	23	3,211	0	118	9	4,340
12-03 am	9	24	3,235	3	121	8	4,348
12-04 am	7	14	3,249	0	121	9	4,357
12-05 am	7	22	3,271	0	121	5	4,362
12-06 am	3	11	3,282	0	121	3	4,365
12-26	self	0	3,282	0	121	0	4,365
12-27	self	0	3,282	0	121	0	4,365

**Appendix C.** Duck harvest by field and zone, NPSWA 2017-20 comparison.

Field	Zone	Hunter Trips 2017	Hunter Trips 2018	Hunter Trips 2019	Hunter Trips 2020	Ducks 2017	Ducks 2018	Ducks 2019	Ducks 2020	D/HT 2017	D/HT 2018	D/HT 2019	D/HT 2020
North	2	64	28	57	82	39	5	29	98	0.61	0.18	0.51	1.20
North	3	65	40	57	68	21	10	28	25	0.32	0.25	0.49	0.37
North	4	102	88	86	112	141	37	79	106	1.38	0.42	0.92	0.95
North	5	167	106	115	125	198	64	159	155	1.19	0.60	1.38	1.24
North	6	120	79	96	119	119	41	88	134	0.99	0.52	0.91	1.13
North	7	55	80	85	72	32	32	113	26	0.58	0.40	1.33	0.36
North	8	68	68	66	115	26	39	54	110	0.38	0.57	0.82	0.96
North	9	56	67	97	136	22	27	140	156	0.39	0.40	1.44	1.15
North	<b>Zone Total</b>	<b>697</b>	<b>556</b>	<b>659</b>	<b>829</b>	<b>598</b>	<b>255</b>	<b>690</b>	<b>810</b>	<b>0.86</b>	<b>0.46</b>	<b>1.05</b>	<b>0.92</b>
Middle	10	85	77	74	87	88	45	67	82	1.04	0.58	0.91	0.94
Middle	11	129	84	105	108	130	76	69	176	1.01	0.90	0.66	1.63
Middle	12	72	101	113	111	82	134	135	145	1.14	1.33	1.19	1.31
Middle	13	135	133	124	118	199	163	175	213	1.50	1.23	1.41	1.81
Middle	14	261	131	155	125	326	186	273	295	1.25	1.42	1.76	2.36
Middle	15	205	143	128	131	255	202	155	166	1.24	1.41	1.21	1.27
Middle	16	151	124	119	123	231	205	187	296	1.53	1.65	1.57	2.41
Middle	17	217	136	134	128	247	198	194	156	1.14	1.46	1.45	1.22
Middle	18	164	141	104	96	122	111	58	50	0.74	0.79	0.56	0.52
Middle	19	118	113	119	117	135	177	137	203	1.14	1.57	1.15	1.74
Middle	20	115	123	119	113	160	200	173	173	1.39	1.63	1.45	1.53
Middle	<b>Zone Total</b>	<b>1,650</b>	<b>1,306</b>	<b>1,294</b>	<b>1,257</b>	<b>1,975</b>	<b>1,697</b>	<b>1,623</b>	<b>1,955</b>	<b>1.20</b>	<b>1.30</b>	<b>1.25</b>	<b>1.52</b>
South	21	56	71	72	94	79	29	72	161	1.41	0.41	1.00	1.71
South	22	88	82	80	97	118	38	65	145	1.34	0.46	0.81	1.49
South	23	123	145	148	116	198	194	253	177	1.61	1.34	1.71	1.53
South	24	144	168	152	148	241	315	284	255	1.67	1.88	1.87	1.72
South	25	131	139	129	113	148	162	137	153	1.13	1.17	1.06	1.35
South	26	97	165	181	92	123	289	229	95	1.27	1.75	1.27	1.03
South	<b>Zone Total</b>	<b>639</b>	<b>770</b>	<b>762</b>	<b>660</b>	<b>907</b>	<b>1,027</b>	<b>1,040</b>	<b>986</b>	<b>1.42</b>	<b>1.33</b>	<b>1.36</b>	<b>1.47</b>
Marsh	27-30	80	79	38	57	81	55	46	47	1.01	0.70	1.21	0.82
Marsh	31-42	80	75	139	138	43	52	139	176	0.54	0.69	1.00	1.28
Marsh	43-66	374	348	253	341	303	360	204	391	0.81	1.03	0.81	1.15
All fields	<b>Total all fields</b>	<b>3,522</b>	<b>3,134</b>	<b>3,145</b>	<b>3,282</b>	<b>3,907</b>	<b>3,446</b>	<b>3,742</b>	<b>4,365</b>	<b>1.11</b>	<b>1.10</b>	<b>1.19</b>	<b>1.33</b>