

# New Jersey

Department of Environmental Protection

# Fish & Wildlife

## BUREAU OF WILDLIFE MANAGEMENT

## WHITE-TAILED DEER RESEARCH PROJECT

---

JODI POWERS, PROJECT LEADER  
MEGAN MILLS, NORTHERN REGION  
MEGAN MCCAFFERTY, SOUTHERN REGION  
BRIAN SCHUMM, OUTREACH BIOLOGIST

DAVE GOLDEN, ASSISTANT COMMISSIONER  
KRISTEN MEISTRELL, ASSISTANT DIRECTOR  
GINGER KOPKASH, ASSISTANT DIRECTOR  
JAMES OXLEY, CHIEF – BUREAU OF WILDLIFE MANAGEMENT



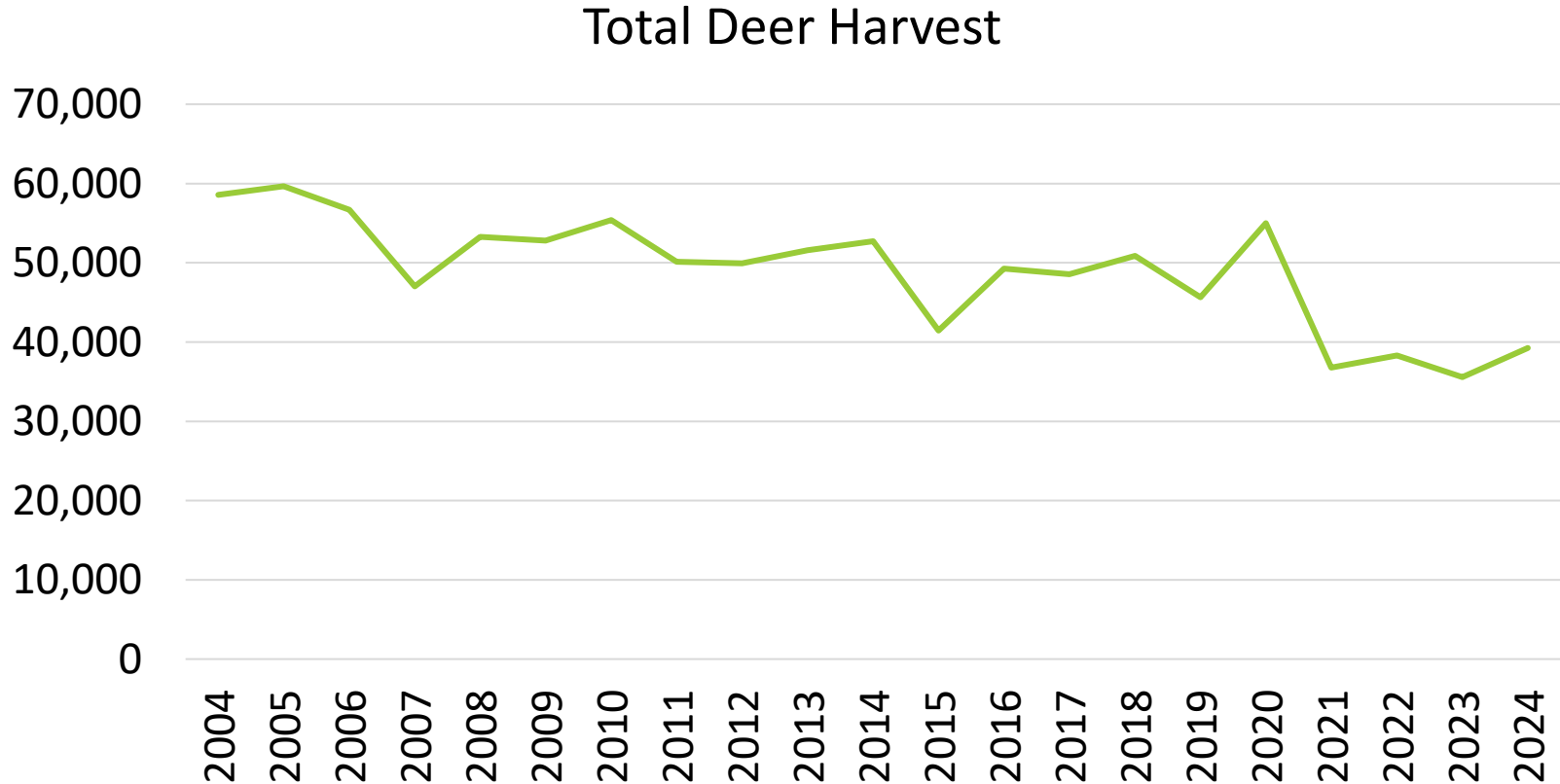
Final Harvest Results

2024-25

New Jersey

White-tailed Deer Seasons

# 2024-25 Total Deer Harvest: 39,255

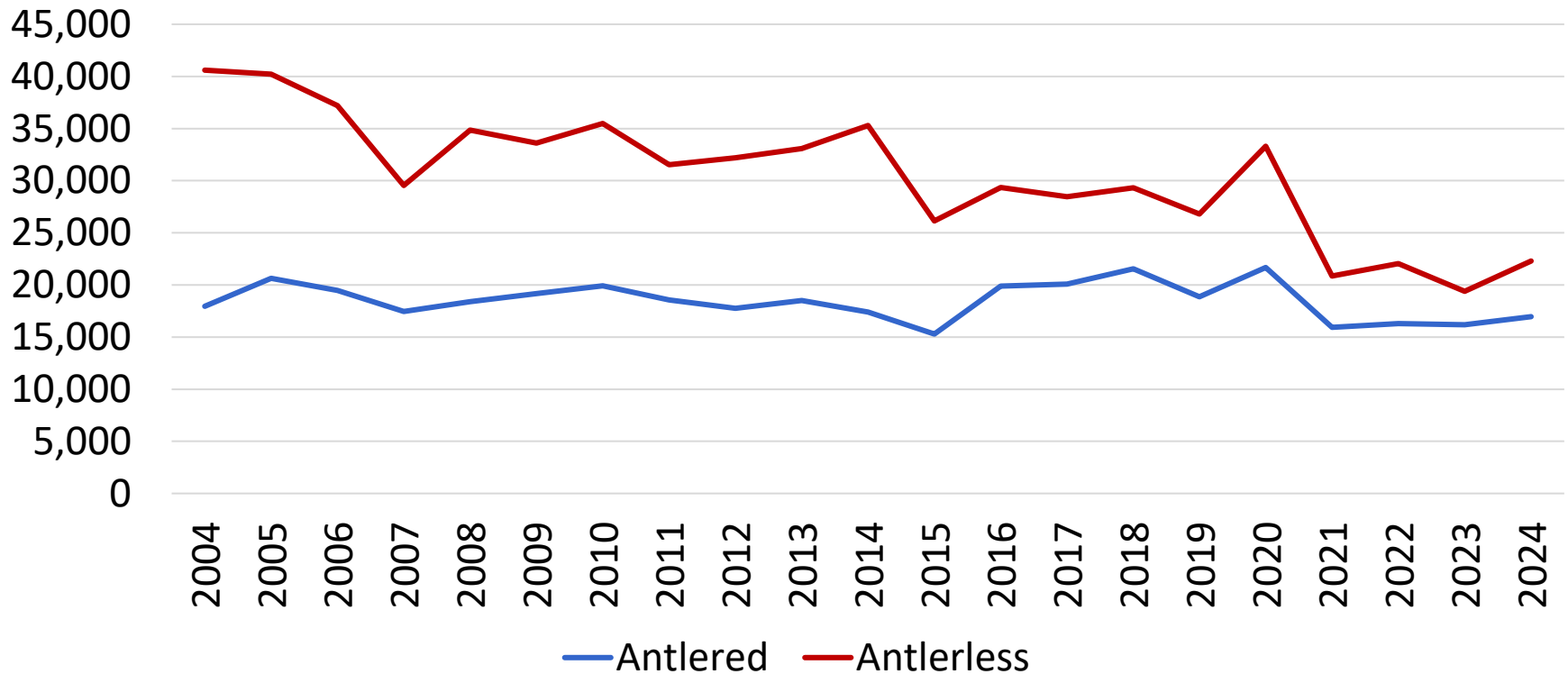


**5 yr. average: 40,984 - 4.2%; from 2019-20 -14.0%**

**+ 10.4% from last year**

# 2024-25 Total Deer Harvest

## Antlered vs Antlerless Deer Harvest



**16,948**

**4.7%**

**+762**

**22,307**

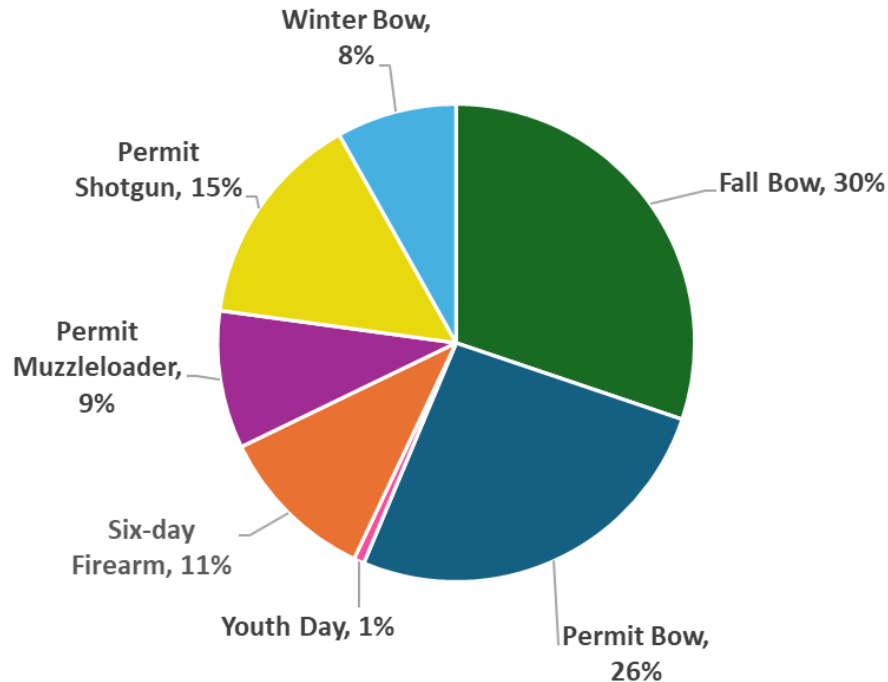
**15.1%**

**+2920**

# 2024-25 Total Deer Harvest

|              | Overall Harvest Comparison |            |               |                     |                |            |                 |        |
|--------------|----------------------------|------------|---------------|---------------------|----------------|------------|-----------------|--------|
|              | Fall Bow                   | Permit Bow | 6-Day Firearm | Permit Muzzleloader | Permit Shotgun | Winter Bow | Youth Hunt Days | Total  |
| 2024         | 11,848                     | 10,263     | 4,241         | 3,660               | 5,760          | 3,203      | 280             | 39,255 |
| 2023         | 10,513                     | 8,980      | 4,411         | 3,362               | 5,041          | 3,042      | 224             | 35,573 |
| % difference | 12.7%                      | 14.3%      | -3.9%         | 8.9%                | 14.3%          | 5.3%       | 25.0%           | 10.4%  |
| N difference | 1,335                      | 1,283      | -170          | 298                 | 719            | 161        | 56              | 3,682  |

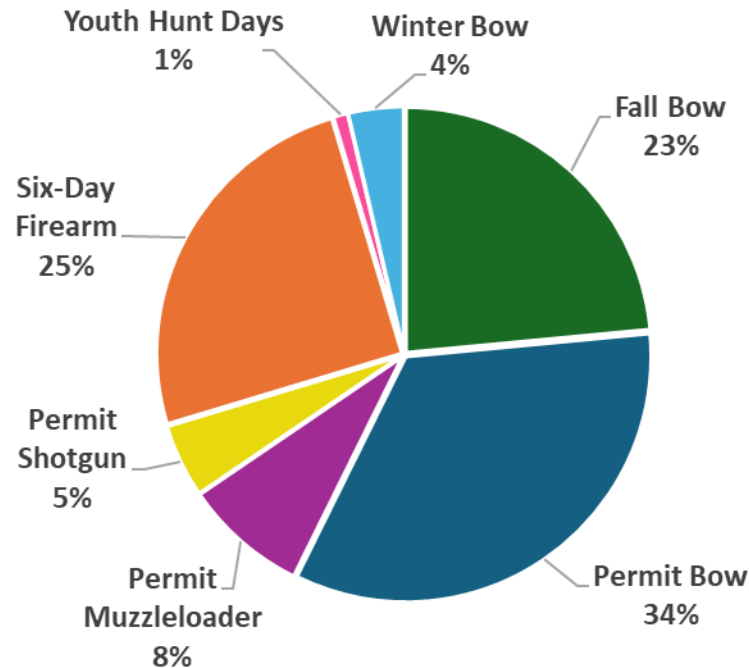
## 2024-25 Deer Season Summary



# 2024-25 Antlered Deer Harvest

|              | Antlered Harvest Comparison |            |               |                     |                |            |                 |        |
|--------------|-----------------------------|------------|---------------|---------------------|----------------|------------|-----------------|--------|
|              | Fall Bow                    | Permit Bow | 6-Day Firearm | Permit Muzzleloader | Permit Shotgun | Winter Bow | Youth Hunt Days | Total  |
| 2024         | 3,982                       | 5,732      | 4,241         | 1,387               | 821            | 621        | 164             | 16,948 |
| 2023         | 3,641                       | 5,155      | 4,411         | 1,352               | 806            | 665        | 156             | 16,186 |
| % difference | 9.4%                        | 11.2%      | -3.9%         | 2.6%                | 1.9%           | -6.6%      | 5.1%            | 4.7%   |
| N difference | 341                         | 577        | -170          | 35                  | 15             | -44        | 8               | 762    |

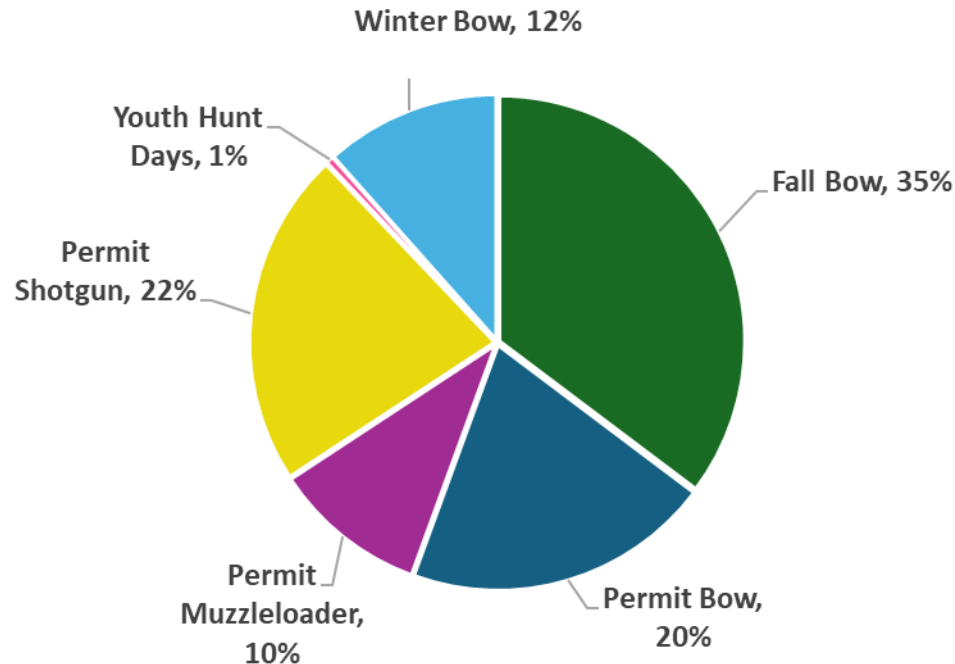
## 2024-25 Antlered Harvest by Season



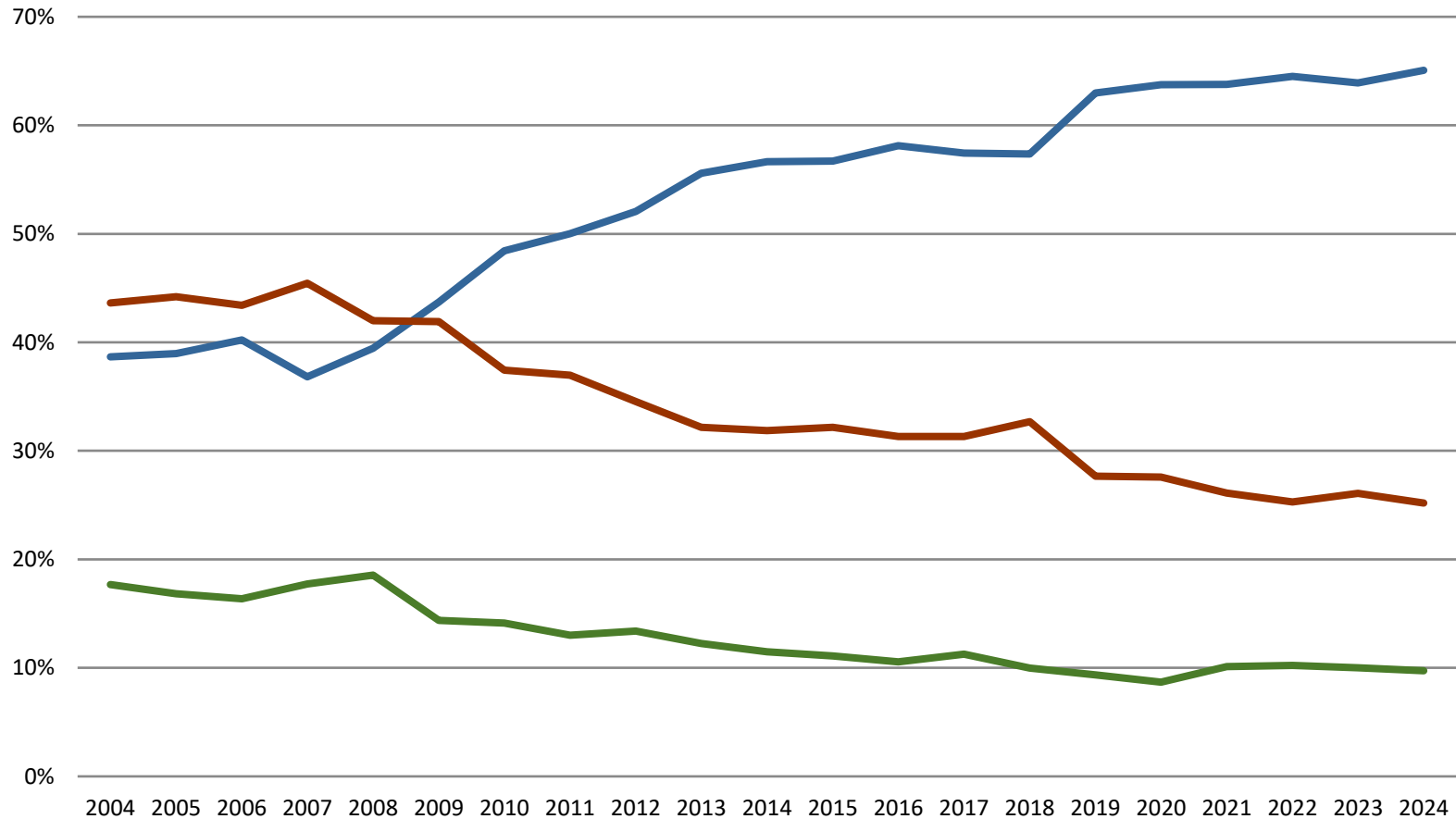
# 2024-25 Antlerless Deer Harvest

|              | Antlerless Harvest Comparison |            |               |                     |                |            |                 | Total  |
|--------------|-------------------------------|------------|---------------|---------------------|----------------|------------|-----------------|--------|
|              | Fall Bow                      | Permit Bow | 6-Day Firearm | Permit Muzzleloader | Permit Shotgun | Winter Bow | Youth Hunt Days |        |
| 2024         | 7866                          | 4531       | 0             | 2273                | 4939           | 2582       | 116             | 22,307 |
| 2023         | 6,872                         | 3,825      | 0             | 2,010               | 4,235          | 2,377      | 68              | 19,387 |
| % difference | 14.5%                         | 18.5%      | 0.0%          | 13.1%               | 16.6%          | 8.6%       | 70.6%           | 15.1%  |
| N difference | 994                           | 706        | 0             | 263                 | 704            | 205        | 48              | 2,920  |

## 2024-25 Antlerless Harvest by Season



# Weapon Percentages of Total Harvest



— Bow

— Shotgun

— Muzzleloader

**2024:**

**25,543**

**9,889**

**3,823**

**Percent of Total Harvest:**

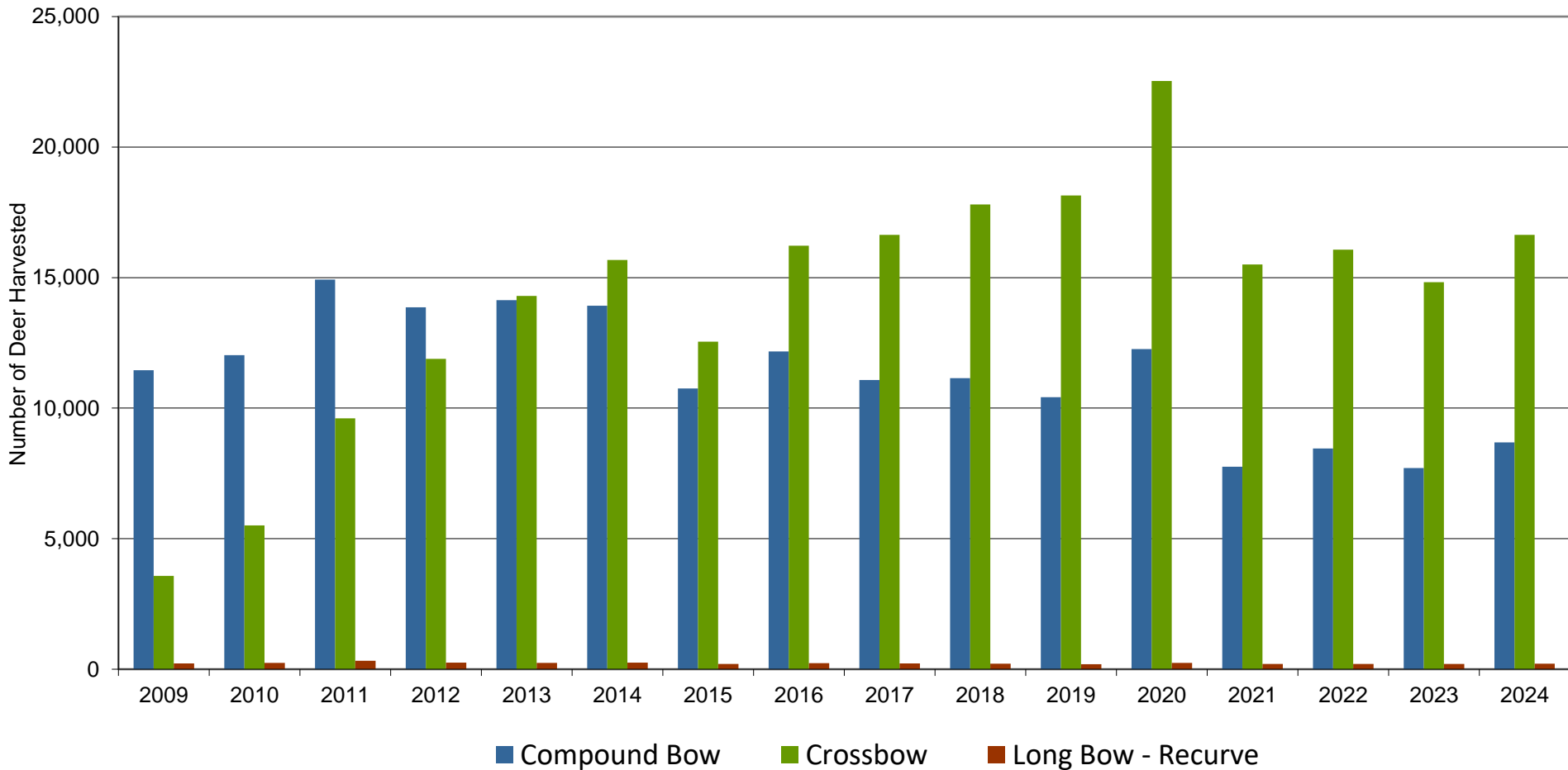
**65%**

**25%**

**10%**

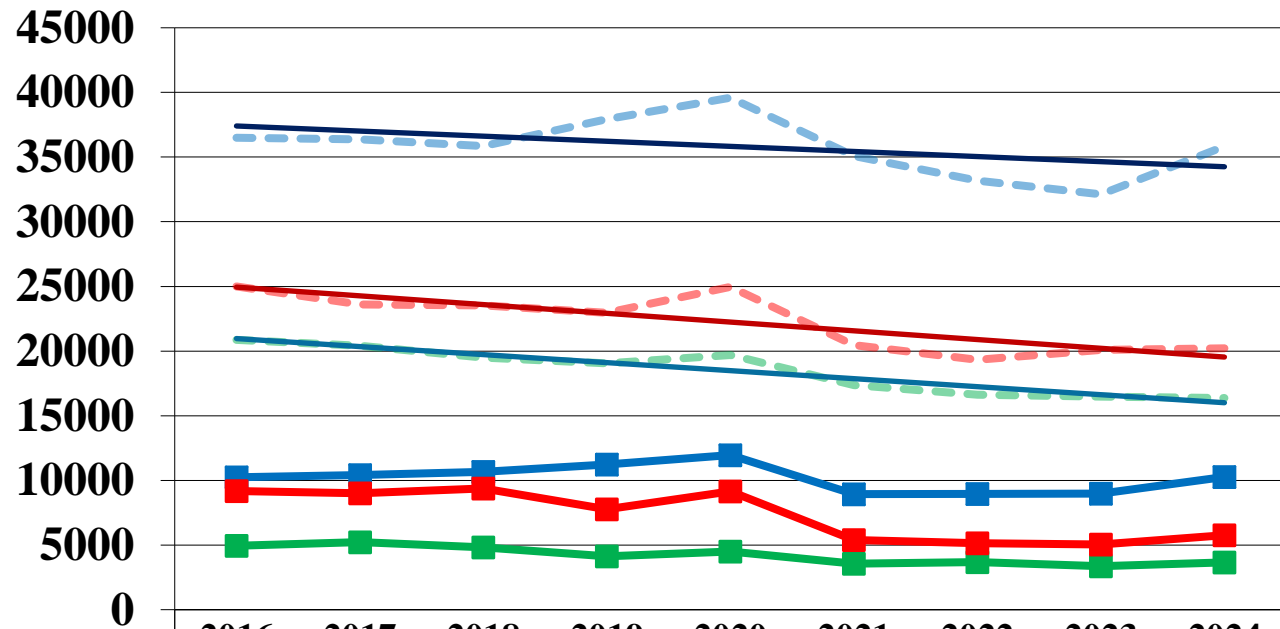


# Bow Harvest Trends



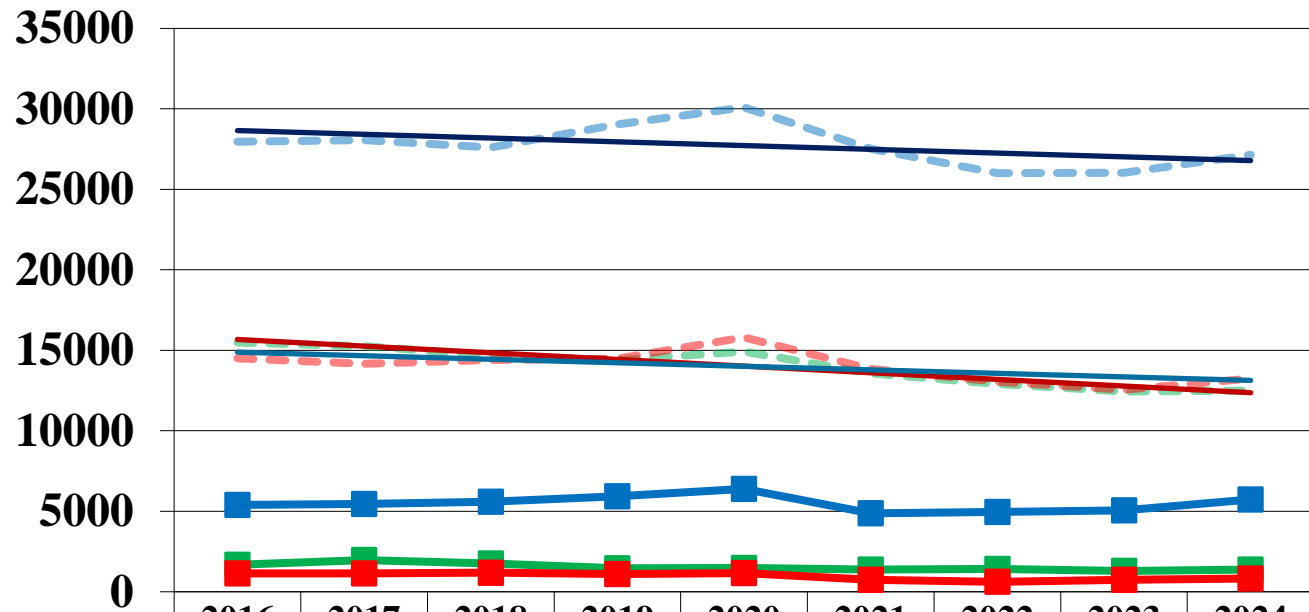
**Percent of Bow Harvest 2024:**      **34%**      **65%**      **1%**

# Statewide Antlerless Permit Sale Trends



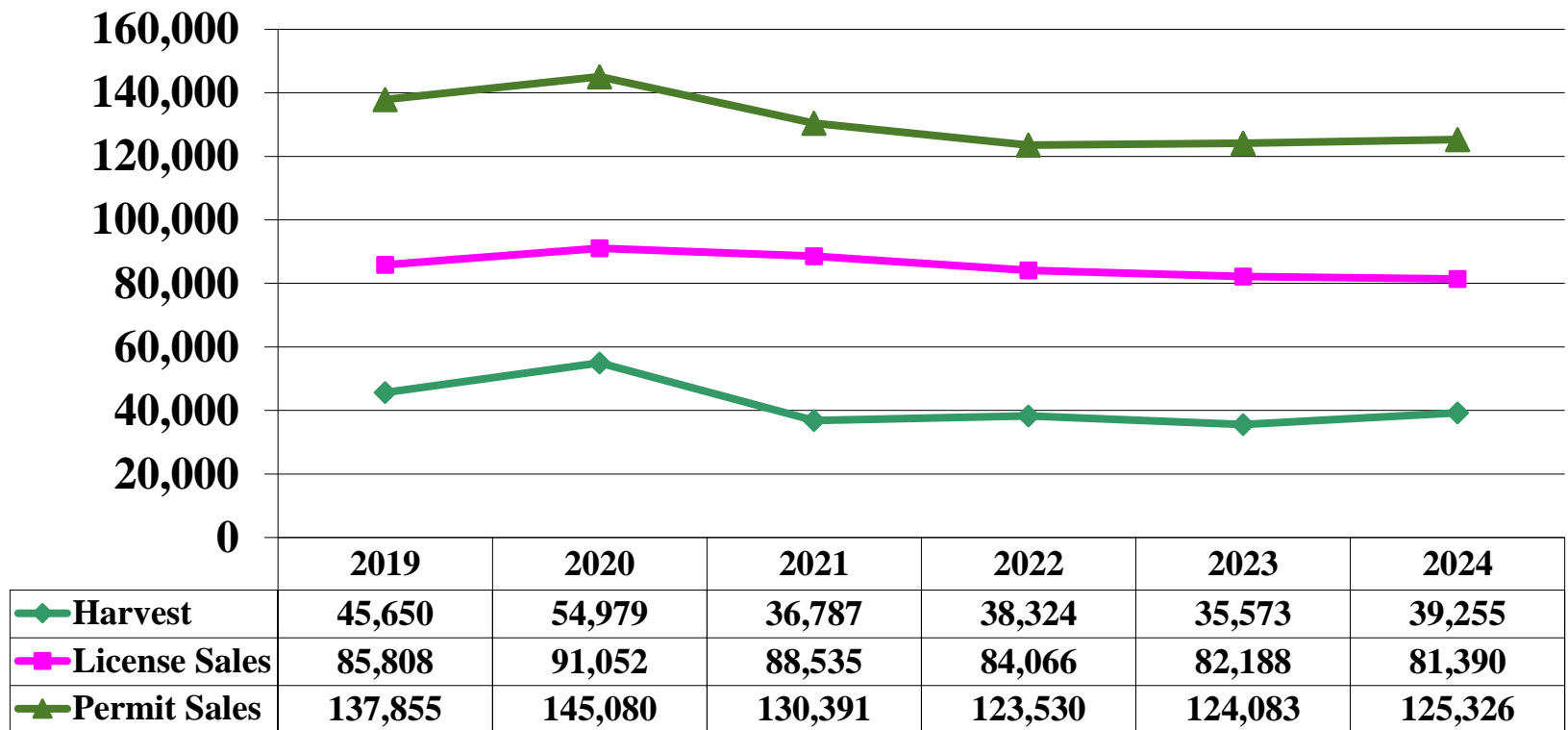
|                              | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | 2023  | 2024  | % Change |
|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| Sales: Permit Bow            | 36493 | 36377 | 35860 | 37935 | 39590 | 35075 | 33188 | 32121 | 35827 | 11.5%    |
| Sales: Permit Muzzleloader   | 20863 | 20412 | 19500 | 19039 | 19695 | 17374 | 16620 | 16481 | 16368 | -0.7%    |
| Sales: Permit Shotgun        | 24995 | 23614 | 23533 | 22947 | 24975 | 20462 | 19325 | 20099 | 20218 | 0.6%     |
| Harvest: Permit Bow          | 10247 | 10402 | 10649 | 11223 | 11957 | 8938  | 8958  | 8980  | 10263 | 14.3%    |
| Harvest: Permit Muzzleloader | 4935  | 5225  | 4812  | 4126  | 4488  | 3555  | 3692  | 3362  | 3660  | 8.9%     |
| Harvest: Permit Shotgun      | 9164  | 9008  | 9374  | 7757  | 9157  | 5397  | 5142  | 5041  | 5760  | 14.3%    |

# Statewide Buck Permit Trends



|   | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | 2023  | 2024  | % Change |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| <span style="color: blue;">--■--</span> Sales: Buck Bow Permit    | 27958 | 28069 | 27603 | 29038 | 30097 | 27527 | 26007 | 26040 | 27155 | 4.3%     |
| <span style="color: green;">--■--</span> Sales: Buck Muzzleloader | 15488 | 15255 | 14699 | 14405 | 14920 | 13575 | 12912 | 12440 | 12499 | 0.5%     |
| <span style="color: red;">--■--</span> Sales: Buck Shotgun Permit | 14504 | 14157 | 14408 | 14491 | 15803 | 13848 | 13056 | 12550 | 13259 | 5.6%     |
| <span style="color: blue;">--■</span> Harvest: Buck Bow           | 5394  | 5463  | 5601  | 5933  | 6391  | 4875  | 4951  | 5055  | 5732  | 13.4%    |
| <span style="color: green;">--■</span> Harvest: Buck Muzzleloader | 1670  | 1967  | 1759  | 1464  | 1486  | 1386  | 1413  | 1291  | 1387  | 7.4%     |
| <span style="color: red;">--■</span> Harvest: Buck Shotgun        | 1134  | 1151  | 1189  | 1094  | 1169  | 750   | 616   | 744   | 821   | 10.3%    |

# Total Harvest vs. Hunting License Sales



Council to advance Hunting and Shooting Sports – April 4, 2023, report: Hunting license sales back to pre-pandemic levels.

# 2024-25 Community Based Deer Management Permit

| Bernards, Somerset County |            |       | Essex County Parks |            |       | Princeton, Mercer County |            |       | Joint Base McGuire Dix<br>Lakehurst |            |       | Mercer County Parks |            |       |
|---------------------------|------------|-------|--------------------|------------|-------|--------------------------|------------|-------|-------------------------------------|------------|-------|---------------------|------------|-------|
| Antlered                  | Antlerless | Total | Antlered           | Antlerless | Total | Antlered                 | Antlerless | Total | Antlered                            | Antlerless | Total | Antlered            | Antlerless | Total |
| N/A                       | N/A        | N/A   | 53                 | 54         | 107   | 67                       | 57         | 124   | 0                                   | 12         | 12    | 11                  | 53         | 64    |

**2025 CBDMP total = 307**

2024 CBDMP Total = 312

# Disease Surveillance



## Chronic Wasting Disease

- Sampled 1085 hunter harvested or symptomatic deer
- All samples are at lab waiting for results of testing

## Epizootic Hemorrhagic Disease

- No cases again this year

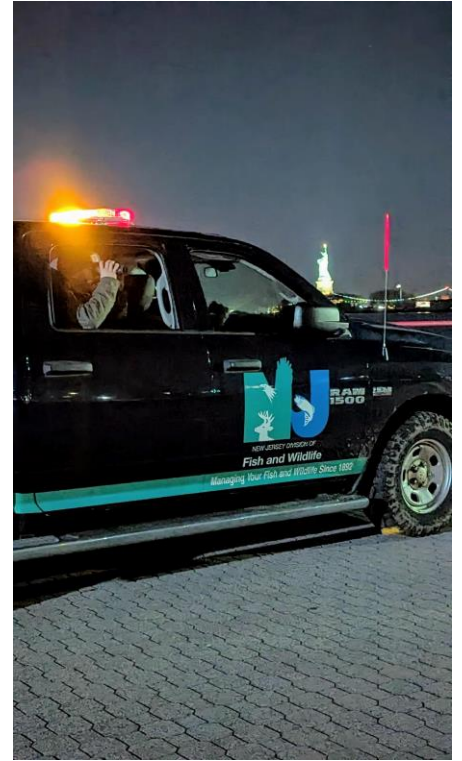
## Deer Disease Sighting Form

- Gaining users
- On main page of website

# Deer Research

## Spotlight Counts

- Warren County
  - Pequest WMA
- Hudson County
  - Liberty State Park
- Cumberland County
  - Peaslee WMA



# NJ DEP Community Based Deer Management Funding

## **NJ DEP received \$160,000**

- Must be used for deer population survey, forest health survey and/or reimbursement for the venison donation program

## **Grant Process**

- Application on NJDEP Grants and Loans page
- Link was sent to municipalities, counties, non-profits
- Application period ends May 9<sup>th</sup>

## **Rating/Scoring**

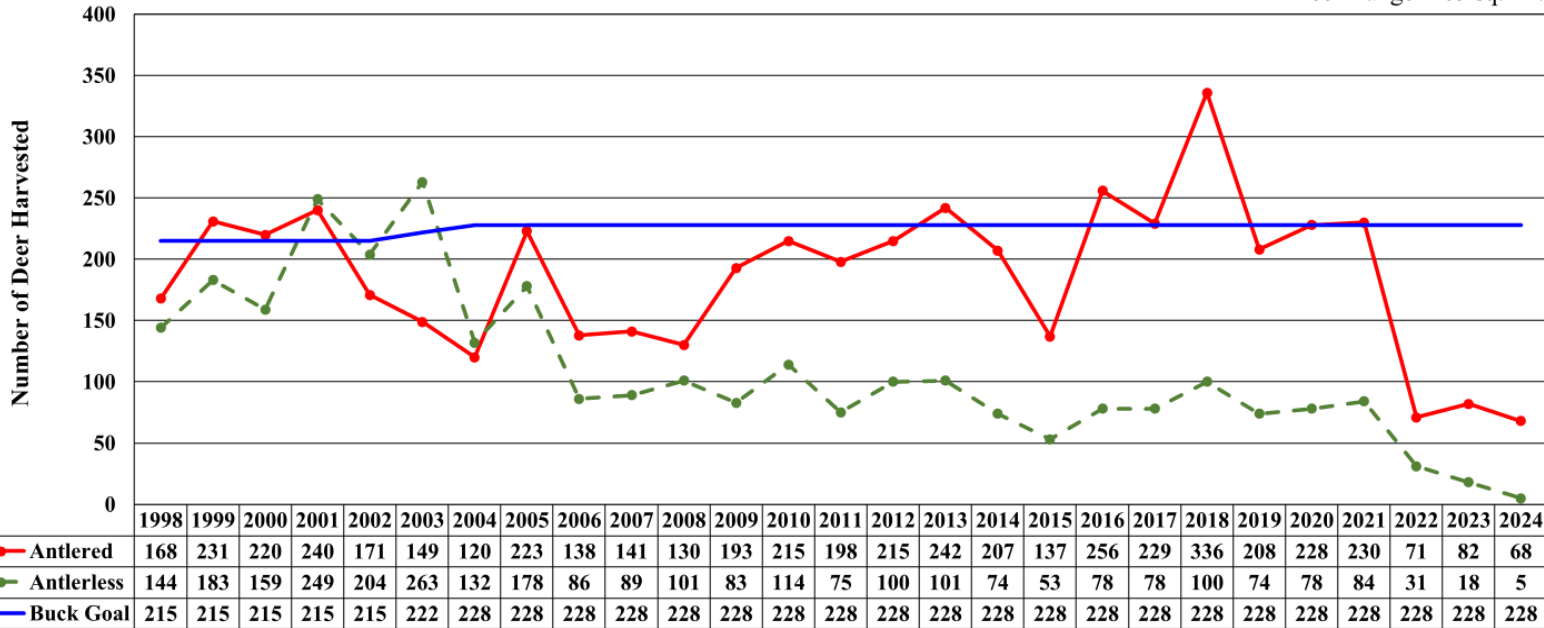
- Applicants will be scored based on a rubric
- Applicants will be ranked
- Money will be allocated by June 30



# Deer Management Zones of Concern

## Deer Management Zone 45

Deer Range = 65 sq. mi.



Reg Set 0

Buck goal = 3.5 bucks per square mile

Strategy = Increase

- 70 individuals harvested 73 deer
- 13 antlered taken during Fall Bow and 55 taken during Six-Day.
- All antlerless harvests were reported to be does.

2009: Reg Set changed to Set 0  
 2024: Only opened for the Fall Bow, Youth Archery Day, Youth Firearm Day, and 6-Day Firearm seasons

- 2023-24
- 92 individuals harvested 100 deer
  - Of the 18 antlerless deer-14 were does
  - Of the 82 antlered - 49 taken during six day

# DMZ 45 Antlerless Harvest Breakdown

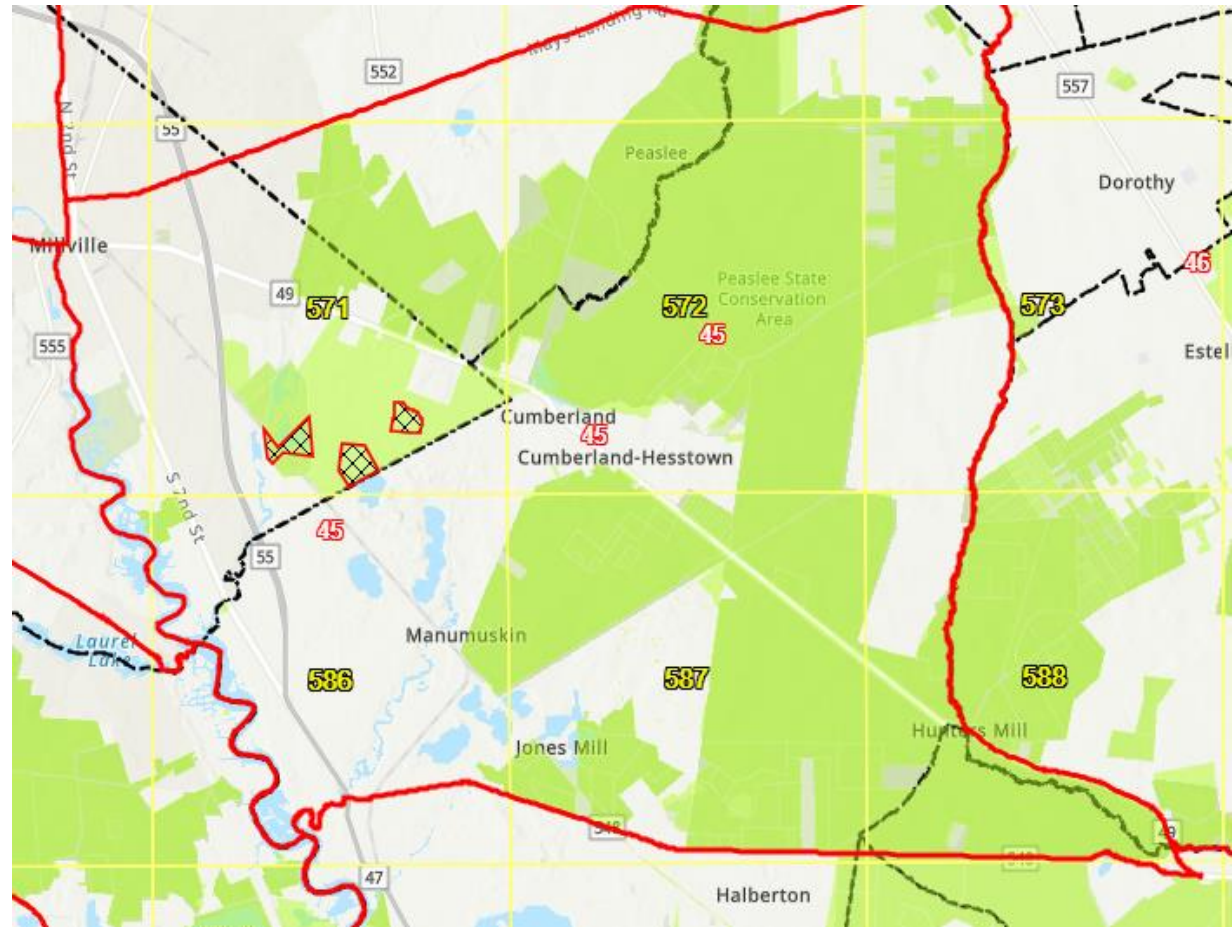
| Antlerless                 | 2016                    | 2017                    | 2018                    | 2019                    | 2020                    | 2021                    | 2022                  | 2023                   | 2024       |
|----------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-----------------------|------------------------|------------|
| <b>Fall Bow</b>            | 11 (2 BB, 8 Does, 1 M)  | 13 (2 BB, 11 Does)      | 14 (2 BB, 11 Does, 1 M) | 13 (4 BB, 9 Does)       | 20 (4 BB, 13 Does, 3 M) | 7 (1 BB, 5 Does, 1 M)   | 6 ( 6 Does)           | 2 (2 Does)             | 4 (4 does) |
| <b>Permit Bow</b>          | 15 (2 BB, 7 Does, 3 M)  | 8 (2 BB, 5 Does, 1 M)   | 11 (2 BB, 9 Does)       | 11 (1 BB, 9 Does, 1 M)  | 9 (3 BB, 6 Does)        | 14 (2 BB, 11 Does, 1 M) | 6 (1 BB, 4 Does, 1 M) | 0                      | closed     |
| <b>Permit Muzzleloader</b> | 23 (2 BB, 20 Does, 1 M) | 24 (4 BB, 18 Does, 2 M) | 26 (3 BB, 20 Does, 3 M) | 16 (3 BB, 13 Does)      | 21 (1 BB, 18 Does, 2 M) | 19 (2 BB, 13 Does, 4 M) | 8 (1 BB, 6 Does, 1 M) | 4 (3 Does, 1 M)        | closed     |
| <b>Permit Shotgun</b>      | 13 (3 BB, 10 Does)      | 13 (2 BB, 7 Does, 4 M)  | 26 (2 BB, 21 Does, 3 M) | 22 (2 BB, 19 Does, 1 M) | 10 (2 BB, 8 Does)       | 15 (1 BB, 13 Does, 1 M) | 2 (2 Does)            | 2 (1 BB, 1 Doe)        | closed     |
| <b>Winter bow</b>          | 15 (2 BB, 13 Does)      | 17 (16 Does, 1 M)       | 21 (2 BB, 18 Does, 1 S) | 10 (1 BB, 8 Does, 1 M)  | 15 (13 Does, 2 S)       | 28 (4 BB, 21 Does, 3 S) | 7 (3 BB, 4 Does)      | 10 (1 BB, 8 Does, 1 M) | closed     |
| <b>Youth Firearm Day</b>   | 0                       | 3 (2 Does, 1 M)         | 2 (1 BB, 1 Doe)         | 0                       | 3 (2 BB, 1 Doe)         | 1 (1 Doe)               | 1 (Doe)               | 0                      | 0          |
| <b>Youth Bow Day</b>       | 1 (1 Doe)               | 0                       | 0                       | 2 (1 BB, 1 Doe)         | 0                       | 0                       | 1 (Doe)               | 0                      | 1 (1 Doe)  |

# Harvest by Land Type Zone 45

| <b>DMZ 45</b>    | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> | <b>Average</b> | <b>Percent</b> |
|------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------------|----------------|
| <b>County</b>    | 2           | 1           | 1           | 3           | 0           | 3           | 0           | 0           | 1           | 1.375          | 0%             |
| <b>Federal</b>   | 0           | 0           | 1           | 0           | 0           | 0           | 0           | 0           | 0           | 0.125          | 0%             |
| <b>Municipal</b> | 1           | 1           | 2           | 3           | 1           | 5           | 1           | 2           | 1           | 2.125          | 1%             |
| <b>Private</b>   | 99          | 102         | 159         | 112         | 115         | 121         | 31          | 24          | 18          | 97.625         | 35%            |
| <b>State</b>     | 232         | 203         | 273         | 164         | 190         | 185         | 70          | 74          | 53          | 180.5          | 64%            |
| <b>Total</b>     | 334         | 307         | 436         | 282         | 306         | 314         | 102         | 100         | 73          | 281.75         | 100%           |

# Review of DMZ 45

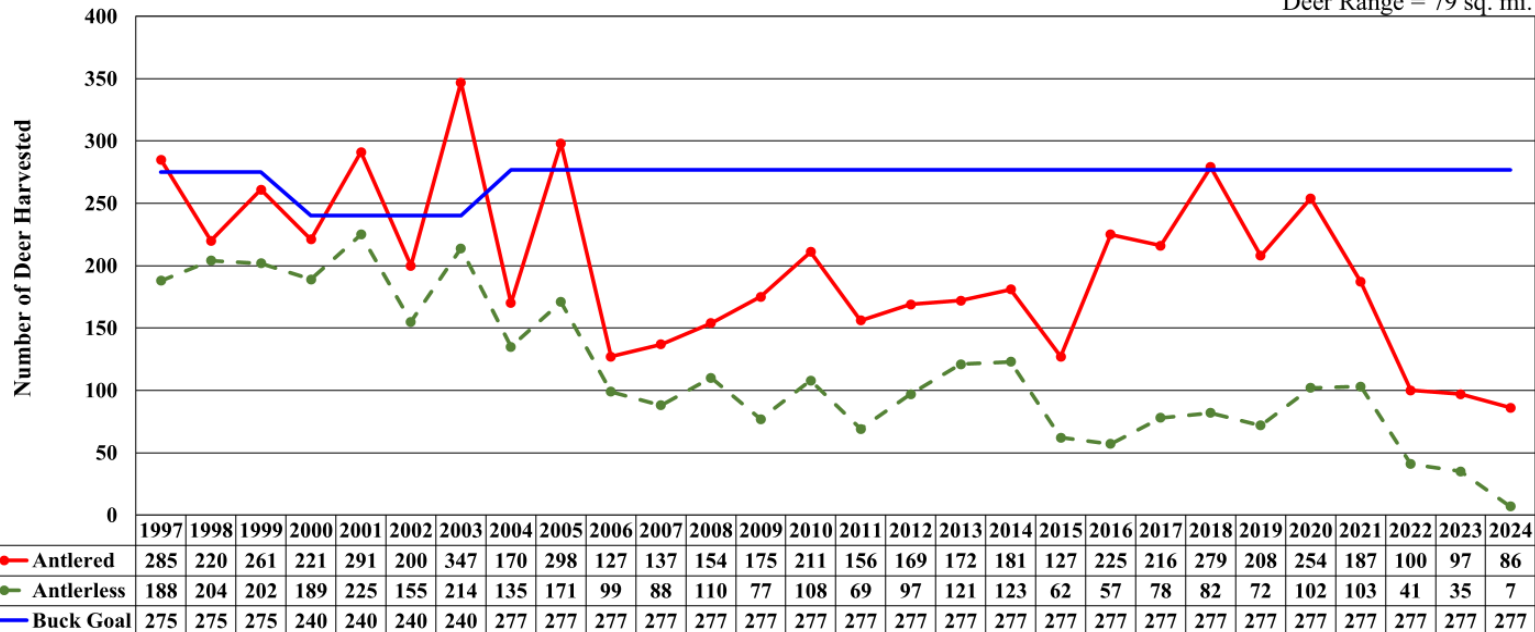
- Cumberland County
- EHD effected area
- Reg Set 0
- No depredation permits
- Most accessible public land is Peaslee WMA, taking up a large portion of the DMZ



# Deer Management Zones of Concern

## Deer Management Zone 46

Deer Range = 79 sq. mi.



Reg Set 0

Buck goal = 3.5 bucks per square mile

Strategy = Increase

- 89 individuals harvested 93 deer
- 9 antlered taken during Fall Bow, 77 antlered taken during Six-Day.
- All antlerless harvests were reported as does.

2016: Reg Set changed to Set 0

2024: Only opened for the Fall Bow, Youth Archery Day, Youth Firearm Day, and 6-Day Firearm seasons

2023-24

- 121 individual hunters harvested 132 deer
- Of the 35 antlerless – 22 were Does
- Of the 97 antlered - 57 taken during Six-Day

# DMZ 46 Antlerless Harvest Breakdown

| Antlerless                 | 2016                    | 2017                         | 2018                    | 2019                         | 2020                        | 2021                    | 2022                   | 2023                   | 2024       |
|----------------------------|-------------------------|------------------------------|-------------------------|------------------------------|-----------------------------|-------------------------|------------------------|------------------------|------------|
| <b>Fall Bow</b>            | 14 (2BB, 12 Does)       | 19 (3 BB, 15 Does, 1 M)      | 16 (1 BB, 15 Does)      | 15 (2 BB, 13 Does)           | 27 (3 BB, 23 Does, 1 M)     | 20 (2 BB, 16 Does, 2 M) | 9 (8 Does, 1 M)        | 2 (1 Doe, 1 M)         | 5 (5 does) |
| <b>Permit Bow</b>          | 11 (3 BB, 8 Does)       | 14 (4 BB, 10 Does)           | 14 (1 BB, 12 Does, 1 M) | 12 (1 BB, 9 Does, 2 M)       | 17 (3 BB, 10 Does, 4 M)     | 17 (3 BB, 11 Does, 3 M) | 7 (6 Does, 1 M)        | 6 (4 BB, 2 Does)       | closed     |
| <b>Permit Muzzleloader</b> | 13 (1 BB, 11 Does, 1 M) | 18 (1 BB, 10 Does)           | 14 (2 BB, 11 Does, 1 M) | 15 (1 BB, 11 Does, 1 M, 2 S) | 26 (4 BB, 20 Does, 1M, 1 S) | 20 (2 BB, 17 Does, 1 M) | 11 (1 BB, 9 Does, 1 M) | 10 (1 BB, 9 Does)      | closed     |
| <b>Permit Shotgun</b>      | 2 (2 Does)              | 8 (6 Does, 2 M)              | 12 (1 BB, 8 Does, 3 M)  | 11 (2 BB, 7 Does, 2 M)       | 11 (1 BB, 10 Does)          | 13 (2 BB, 11 Does)      | 4 (4Does)              | 5 (2 BB, 3 Does)       | closed     |
| <b>Winter bow</b>          | 13 (1 BB, 12 Does)      | 17 (1 BB, 13 Does, 1 M, 2 S) | 21 (19 Does, 1 M, 1 S)  | 16 (2 BB, 13 Does, 1 M)      | 17 (2 BB, 14 Does, 1 S)     | 30 (2 BB, 27 Does, 1 M) | 7 (7 Does)             | 11 (3 BB, 7 Does, 1 M) | closed     |
| <b>Youth Firearm Day</b>   | 4 (3 Does, 1 M)         | 1 (1 BB)                     | 4 (2 BB, 2 M)           | 3 (2 Does, 1 M)              | 4 (3 Does, 1 M)             | 2 (1 BB, 1 Doe)         | 3 (1 BB, 2 Does)       | 0                      | 2 (2 Does) |
| <b>Youth Bow Day</b>       | 0                       | 1 (1 Doe)                    | 1 (1 Doe)               | 0                            | 0                           | 1 (1 M)                 | 0                      | 0                      | 0          |

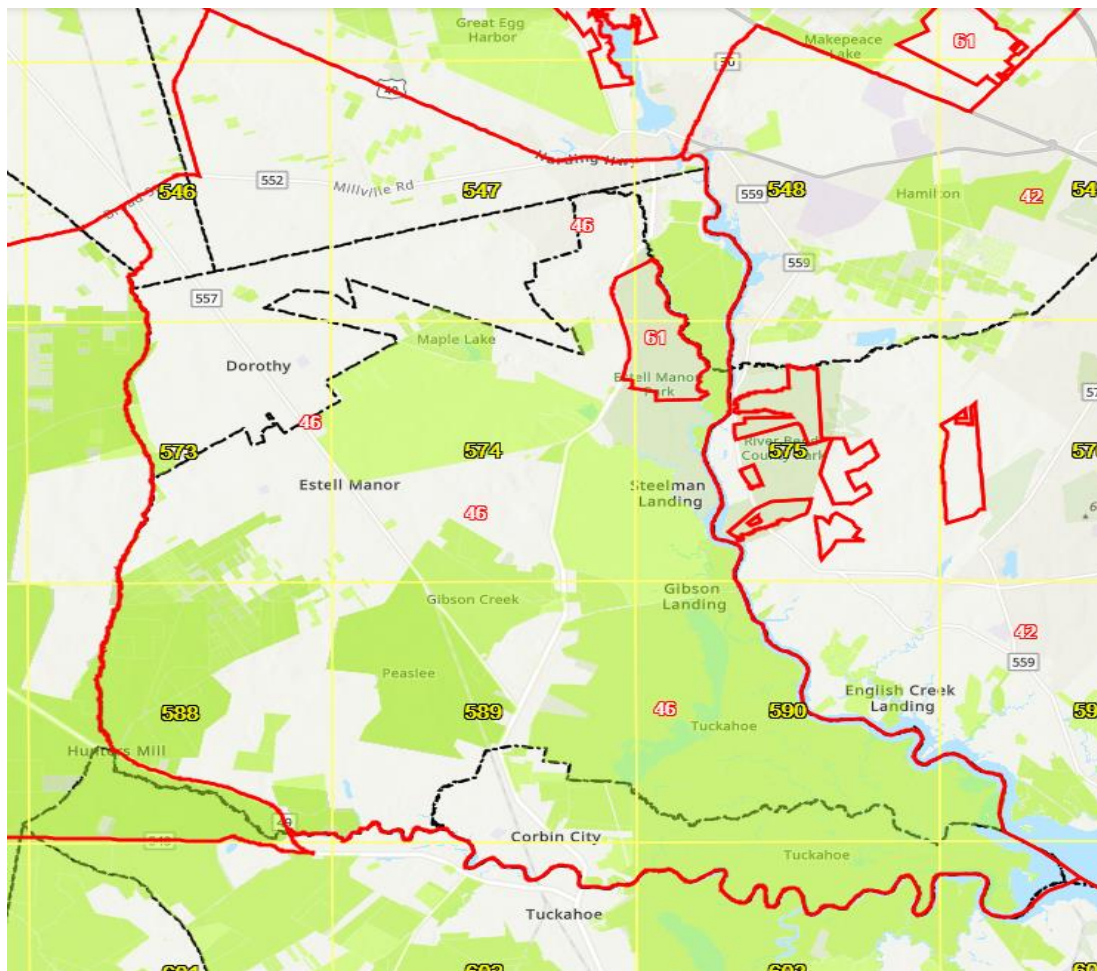
# Harvest by Land Type DMZ 46

| DMZ 46    | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | Average | Percent |
|-----------|------|------|------|------|------|------|------|------|------|---------|---------|
| County    | 2    | 1    | 2    | 2    | 1    | 2    | 0    | 0    | 1    | 1.375   | 0%      |
| Federal   | 0    | 0    | 1    | 0    | 4    | 0    | 0    | 0    | 0    | 0.625   | 0%      |
| Municipal | 1    | 1    | 3    | 4    | 0    | 2    | 3    | 0    | 2    | 2       | 1%      |
| Private   | 178  | 196  | 248  | 183  | 238  | 191  | 85   | 89   | 48   | 182     | 65%     |
| State     | 101  | 96   | 107  | 91   | 113  | 95   | 53   | 43   | 42   | 92.625  | 33%     |
| Total     | 282  | 294  | 361  | 280  | 356  | 290  | 141  | 132  | 93   | 278.625 | 100%    |



# Review of DMZ 46

- Cumberland County
- EHD effected area
- Reg Set 0
- No depredation permits
- Most accessible public land is Peaslee WMA and Tuckahoe taking up a large portion of the DMZ





# Spotlight Count Results

## Spotlight Count 2024

Peaslee WMA, DMZs 45, 46

Miles Surveyed: 57.1 miles

Deer Observed: 59

Furthest Observation: 263 yards

| Variable   | Estimate | 95% Confidence Interval |        |
|--|----------|-------------------------|--------|
| Density  | 6.19     | 1.5326                  | 25.026 |
| Group Size   | 2.49     | 1.8155                  | 3.4019 |
| Group Density                                      | 2.49     | 0.6180                  | 10.048 |
| Total Herd*  | 441      | 109                     | 1784   |
| *Total Herd of Zone 45 Estimated by Density * SqMi |          |                         |        |



# Spotlight Count Results

## Spotlight Count 2025

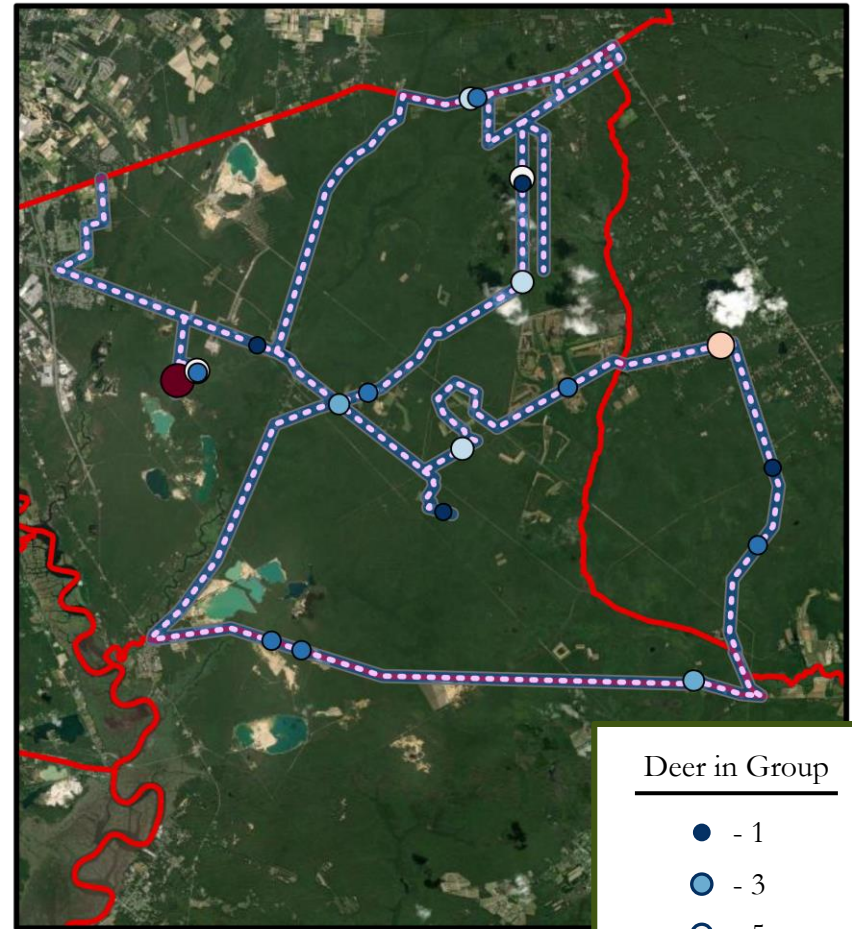
Peaslee WMA, DMZs 45, 46

Miles Surveyed: 55.9 miles

Deer Observed: 52

Furthest Observation: 178 yards

| Variable   | Estimate | 95% Confidence Interval |
|--|----------|-------------------------|
| Density  | 4.86     | 2.4555 , 9.6194         |
| Group Size   | 2.4      | 1.7070 , 3.3602         |
| Group Density                                      | 2.03     | 1.0963 , 3.7562         |
| Total Herd*  | 346      | 175 , 686               |
| *Total Herd of Zone 45 Estimated by Density * SqMi |          |                         |

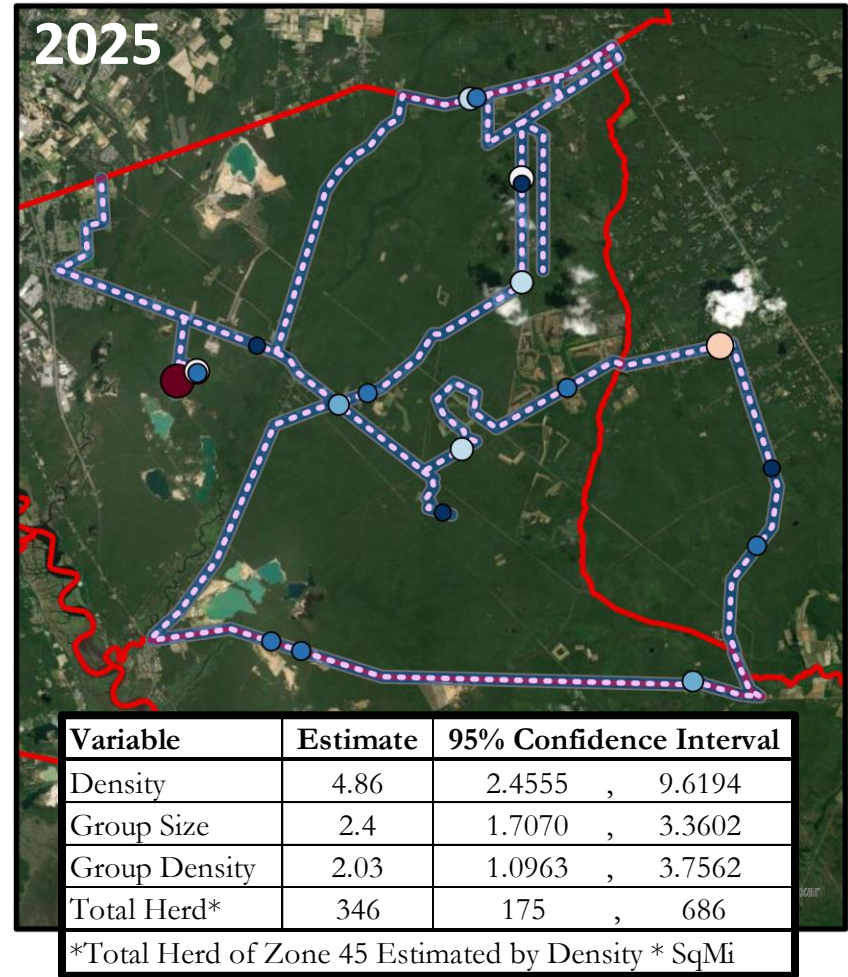
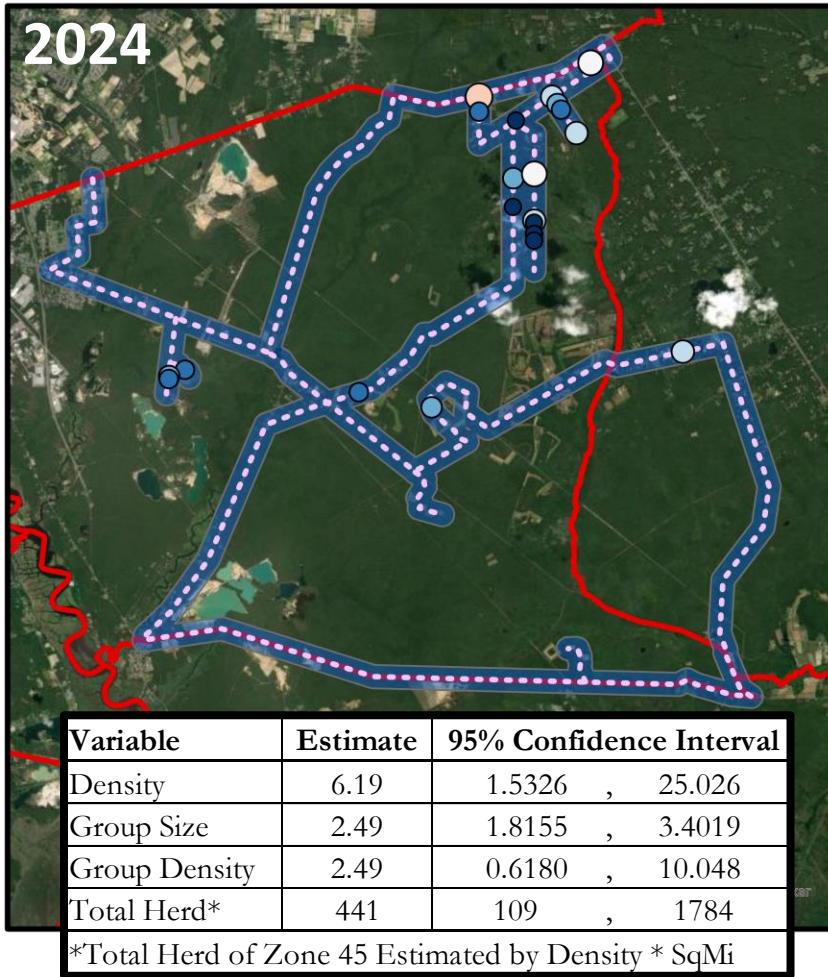


### Deer in Group

- - 1
- - 3
- - 5
- - 7
- - 9



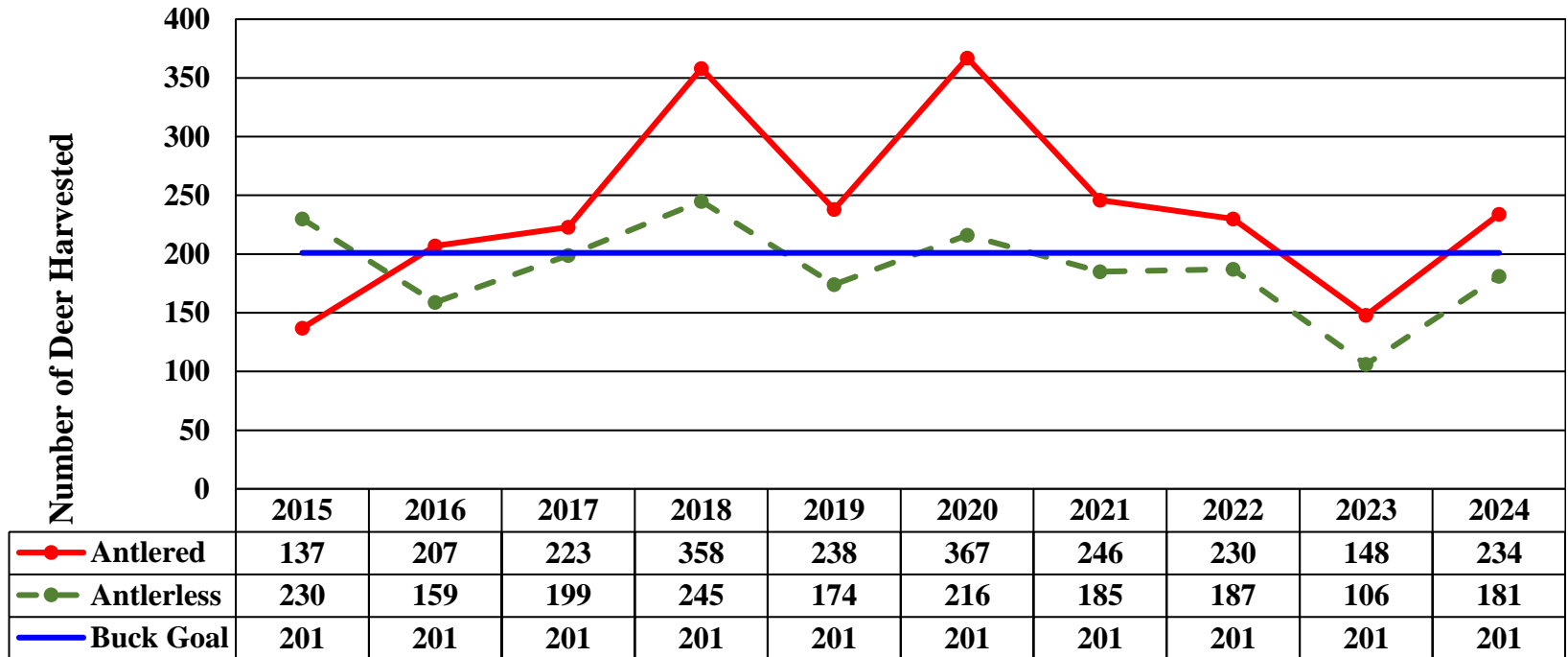
# Spotlight Count Results



# Questions?

# Deer Management Zone 34

Deer Range = 97 sq. mi.



Reg Set 0

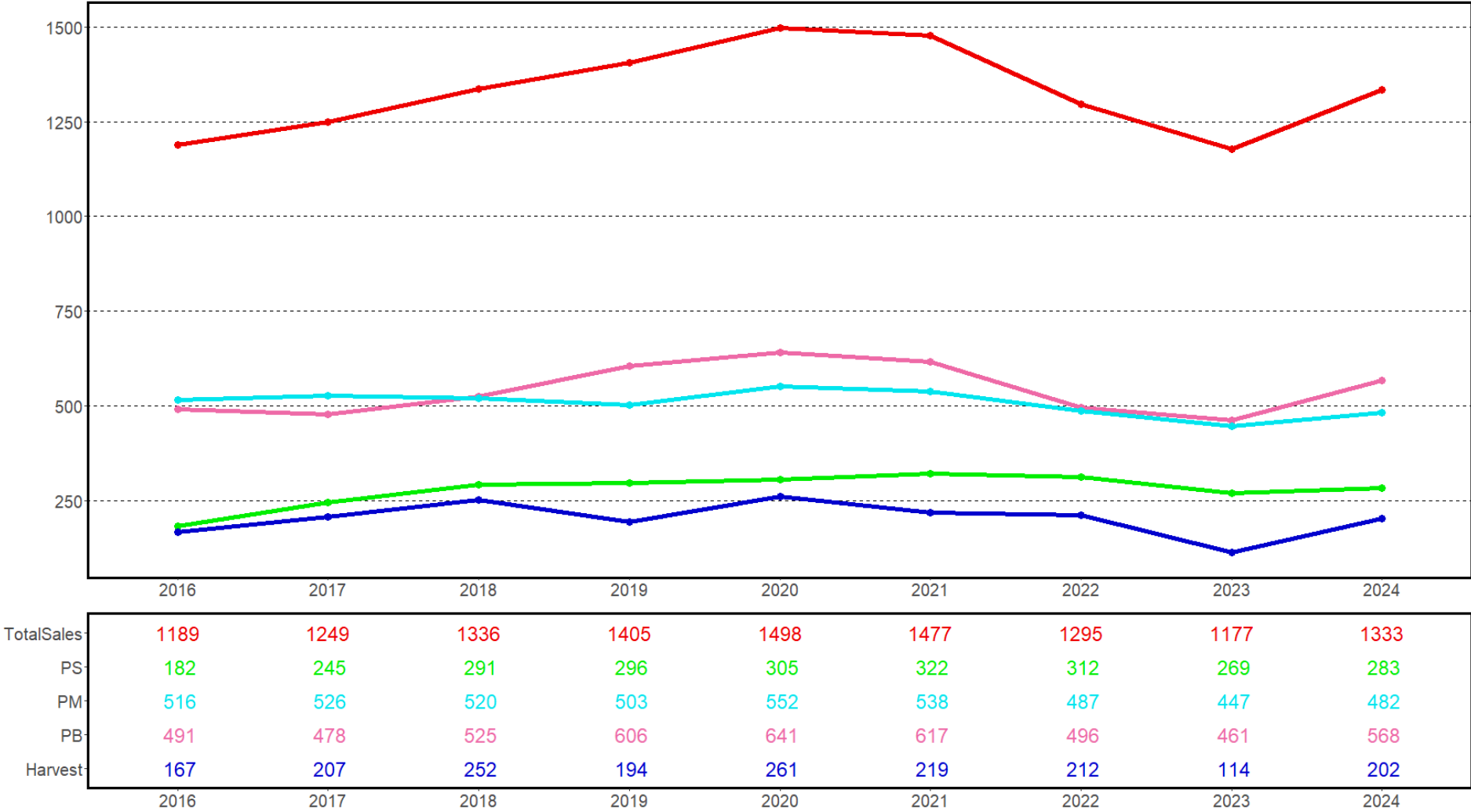
Buck goal = 2.07 bucks per square mile

Strategy = Increase

2009: Reg Set changed to Set 0

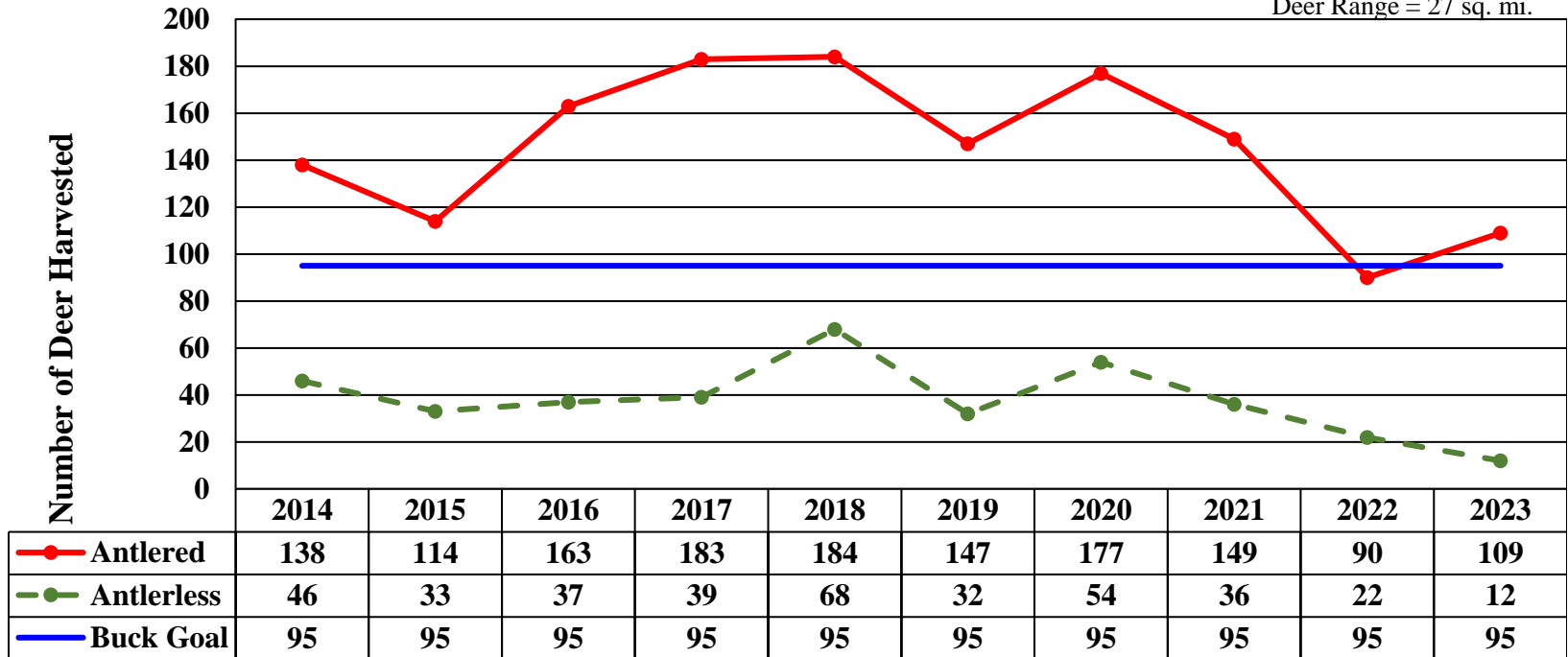
2011: Antler Point Restrictions

Zone 34 Permit Sales Vs. Permit Season Harvest



# Deer Management Zone 43

Deer Range = 27 sq. mi.



Reg Set 0

Buck goal = 3.5 bucks per square mile

Strategy = Increase

2009: Reg Set changed to Set 0  
2011: Surrounding zones go APR

Zone 43 Permit Sales Vs. Permit Season Harvest

