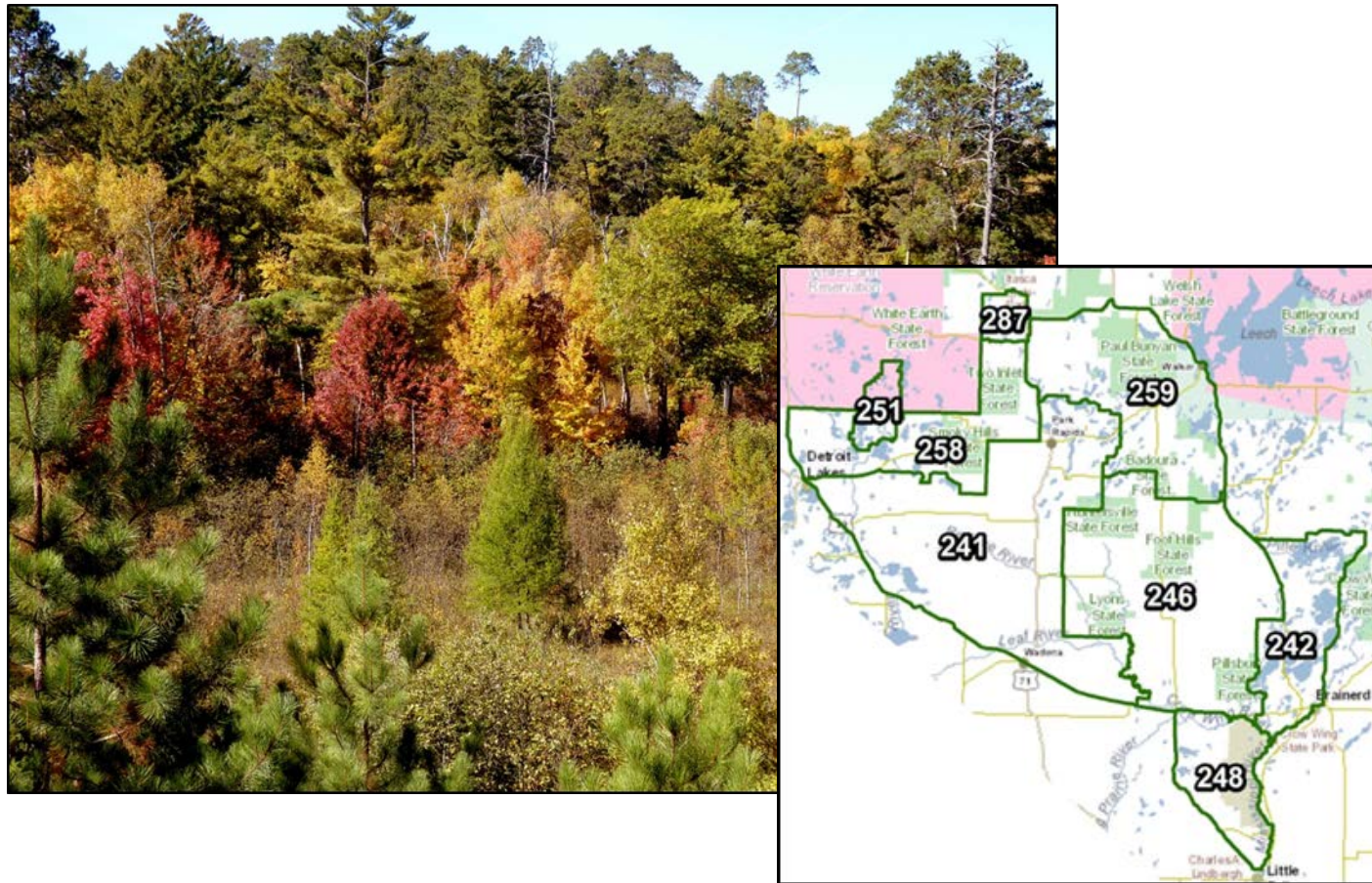




Minnesota Deer Population Goals

Pine Moraines Goal Block



Minnesota DNR – Section of Wildlife, 2015

Final Deer Population Goals – Block 3: Pine Moraines

The following pages provide a description of the 2015 deer population goals, factors considered during goal setting, and management implications for each permit area in Block 3: Pine Moraines (deer permit areas 241, 242, 246, 248, 251, 258, 259 and 287).

Final population goals were developed through a public engagement process, including collecting public comment (via public meetings, online and written questionnaires, mail and email) and convening citizen advisory teams to review information and make recommendations on population goals to DNR. Goals are anticipated to be revisited in 3-5 years (2018-2020). Information incorporated into the final decision includes¹:

- [Block 3 Hunter and Landowner Survey Reports](#)
- [Block 3 Team Information Packet](#) and Addendum
- [2014 Harvest Report](#)
- Public comment received during comment periods in winter and spring 2015
- [Block 3 Advisory Team Recommendations](#)
- Input from Area and Regional staff

¹ Goal setting materials are linked for convenience; source materials with additional detail are cited on the last page.

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Deer Permit Area 241

This permit area contains almost entirely private land and supports high deer and hunter densities. The area has very good and diverse deer habitats, including conifer and deciduous woods, wetlands, and riparian areas mixed with agricultural land and recreational lakes. Some woodlands and grasslands have been converted to agricultural fields in recent years. Complaints of deer damage have been fairly common over the years from livestock and crop farmers, specialty growers, and lakeshore owners.

2015 Deer Population Goal:

Stabilize at 2014 population levels over the next 3-5 years

Summary of decision

A majority (58%) of hunters surveyed in this permit area preferred a population increase, with the greatest numbers (27% each) tied between preferring an increase of 10% and preferring no change in the population. Landowners surveyed in this permit area were divided between preferring a population decrease, no change, or a population increase, with the greatest number (39%) preferring no change in the population. Public comment collected via online and written questionnaires in winter 2015 showed that a majority (68%) of questionnaire respondents preferred a population increase, with the greatest number (41%) preferring an increase of 25%. After reviewing biological and social data for this permit area, the deer advisory team recommended no change in the population; factors considered included hunter satisfaction, recent mild winters, carrying capacity, uneven distribution of deer on the landscape, agricultural impacts and more. Public comment collected in spring 2015 showed that approximately 53% of commenters supported or were ok with the team's recommendation; a majority of those who did not support the team recommendation preferred a population increase. The Department decided to manage for no change in the deer population in recognition of the advisory team recommendation, the range of stakeholder desires, and public support for team recommendations.

Management implications

- This recommendation will result in management for populations similar to, or slightly below, those directed by the previous goals.
- The Department will aim for a target density of 17-22 deer per square mile (dpsm) of land area (pre-fawn) based on the 2014 model estimate of 17-22 dpsm². In addition to trends indicated by the population model estimates, trends in harvest indices, WSI, and field observations will be used to assess population status.

² Note that, similar to a weather forecast or budget forecast, model estimates may change over time as new information is incorporated into the model. For example, DNR deer population modeling occurs each spring prior to setting deer seasons. If the winter persists beyond the date when population estimates are developed, the estimate for that year may be different in the following year once the final data on winter severity can be included. In that case, DNR will assess the trend in the population based on the most up-to-date estimate of the 2014 population and best available data, along with other population indices.

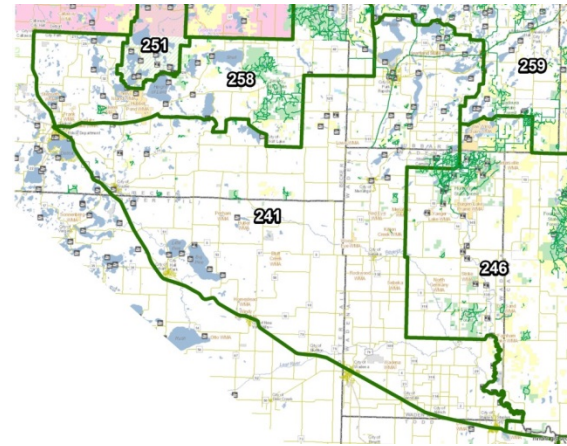
- If milder winter conditions continue, moderate-to-liberal management strategies are anticipated for the next few years to move the population toward goal in this productive area.

Deer Permit Area: 241
Size of Deer Permit Area: 1047 square miles total; 996 square miles of land.
2015 Population Goal: Stabilize at 2014 population levels over the next 3-5 years.
Comments: The boundaries of Deer Permit Area (DPA) 241 changed in 2010. Previously DPA 241 was bordered by State Hwy 87 to the north and U.S. Hwy 71 to the east.

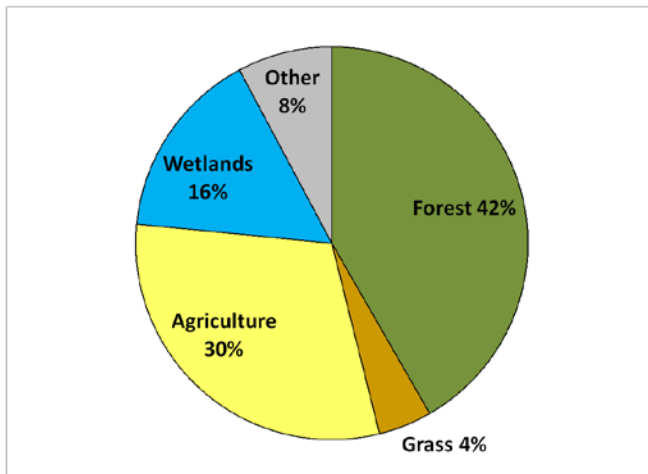
| Year | Mgmt. Designation | No. Firearm Hunters | Firearm Success (%) | Reported Deer Harvest (All seasons) | | |
|-------|-------------------|---------------------|---------------------|-------------------------------------|-------|------------|
| | | | | Total | Bucks | Antlerless |
| 2005 | Intensive | 5779 | 74% | 4288 | 1460 | 2828 |
| 2006 | Intensive | 5206 | 84% | 4369 | 1506 | 2863 |
| 2007 | Intensive | 5055 | 95% | 4787 | 1498 | 3289 |
| 2008 | Intensive | 5287 | 81% | 4284 | 1377 | 2907 |
| 2009 | Intensive | 5319 | 81% | 4332 | 1462 | 2870 |
| 2010* | Managed | 12629 | 64% | 8029 | 3278 | 4751 |
| 2011 | Managed | 12753 | 55% | 7033 | 2801 | 4232 |
| 2012 | Hunter's Choice | 13745 | 46% | 6267 | 3092 | 3175 |
| 2013 | Managed | 14809 | 48% | 7159 | 2986 | 4173 |
| 2014 | Hunter's Choice | 15405 | 44% | 6737 | 3201 | 3536 |

* Boundary change. Please see comments above.

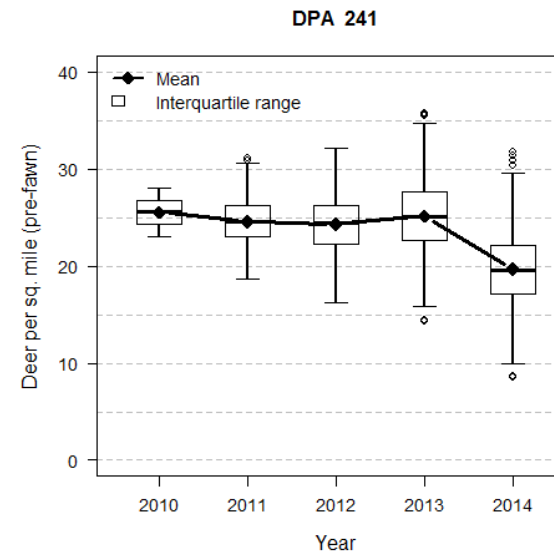
Deer Permit Area: 241
Size of Deer Permit Area: 1047 square miles total;
 996 square miles of land



Habitat Categories:



2014 Model Output



Deer Permit Area 242

This permit area contains almost entirely private land in the heavier-populated Brainerd Lakes area. The area has good deer habitat, including pine and oak woods, wetlands, and riparian areas next to larger recreational lakes. Property and lakeshore owners have complained of deer damage to landscaping and tree regeneration.

2015 Deer Population Goal:

Increase the population 25%, relative to 2014 population, over the next 3-5 years

Summary of decision

A majority (63%) of hunters surveyed in this permit area preferred a population increase, with the greatest number (32%) preferring an increase of 25%. Approximately half (49%) of landowners surveyed in this permit area preferred no change in the population. Public comment collected via online and written questionnaires in winter 2015 showed that a majority (71%) of questionnaire respondents preferred a population increase, with the greatest number (41%) preferring an increase of 50%. After reviewing biological and social data for this permit area, the deer advisory team recommended increasing the population 25%; factors considered included deer “hot spots” (local pockets with high deer populations), habitat availability, depredation and more. Public comment collected in spring 2015 showed that approximately 76% of commenters supported or were ok with the team’s recommendation. The Department decided to manage for an increase in the deer population in recognition of the advisory team recommendation, the range of stakeholder desires, and public support for team recommendations.

Management implications

- This recommendation will result in management for populations similar to those directed by the previous goal.
- The Department will aim for a target density of 13-17 deer per square mile (dpsm) of land area (pre-fawn) based on the 2014 model estimate of 10-14 dpsm³. In addition to trends indicated by the population model estimates, trends in harvest indices, WSI, and field observations will be used to assess population status.
- If milder winter conditions continue, moderate management strategies are anticipated for the next few years to move the population toward goal in this productive area.

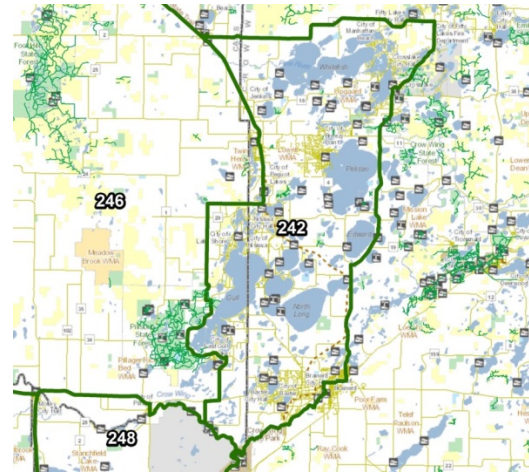
³ Note that, similar to a weather forecast or budget forecast, model estimates may change over time as new information is incorporated into the model. For example, DNR deer population modeling occurs each spring prior to setting deer seasons. If the winter persists beyond the date when population estimates are developed, the estimate for that year may be different in the following year once the final data on winter severity can be included. In that case, DNR will assess the trend in the population based on the most up-to-date estimate of the 2014 population and best available data, along with other population indices.

Deer Permit Area: 242
Size of Deer Permit Area: 307 square miles total; 214 square miles of land.
2015 Population Goal: Increase the population 25%, relative to 2014 population, over the next 3-5 years.

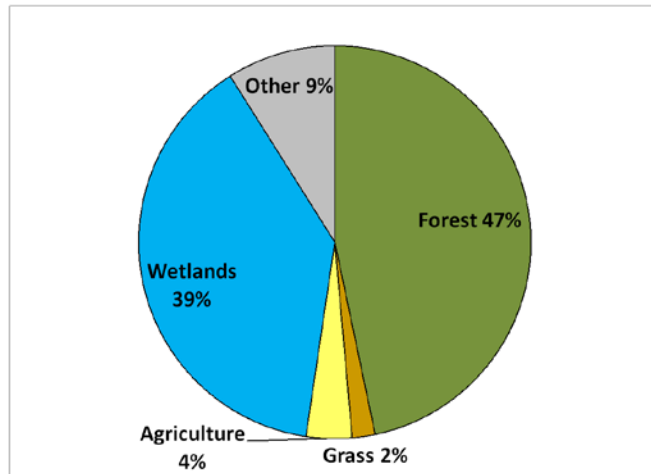
| Year | Mgmt. Designation | No. Firearm Hunters | Firearm Success (%) | Reported Deer Harvest (All seasons) | | |
|------|-------------------|---------------------|---------------------|-------------------------------------|-------|------------|
| | | | | Total | Bucks | Antlerless |
| 2005 | Intensive | 2874 | 74% | 2116 | 721 | 1395 |
| 2006 | Intensive | 2565 | 85% | 2170 | 692 | 1478 |
| 2007 | Intensive | 2642 | 86% | 2259 | 688 | 1571 |
| 2008 | Intensive | 2897 | 77% | 2239 | 663 | 1576 |
| 2009 | Managed | 2715 | 59% | 1598 | 607 | 991 |
| 2010 | Managed | 2722 | 70% | 1907 | 732 | 1175 |
| 2011 | Managed | 2830 | 61% | 1735 | 681 | 1054 |
| 2012 | Managed | 2873 | 62% | 1793 | 626 | 1167 |
| 2013 | Managed | 3001 | 52% | 1551 | 600 | 951 |
| 2014 | Lottery (500) | 2644 | 36% | 948 | 584 | 364 |

Deer Permit Area: 242

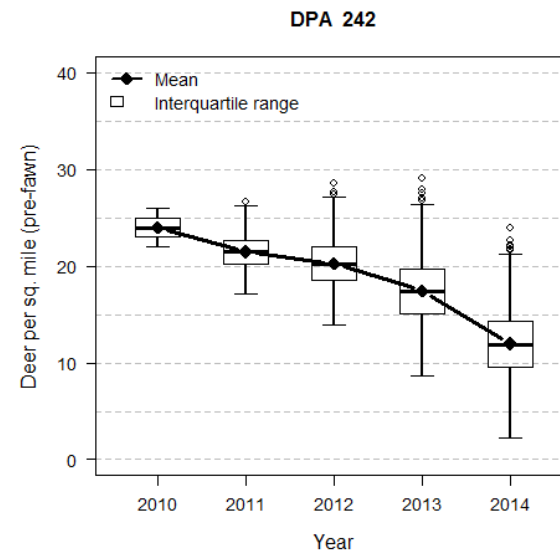
Size of Deer Permit Area: 307 square miles total;
214 square miles of land



Habitat Categories:



2014 Model Output:



Deer Permit Area 246

This permit area contains large blocks of public forestland and a significant amount of private recreational and ranch land as well. It is a popular deer hunting area and has supported moderate deer densities. The habitat includes red and jack pine, mixed deciduous and aspen forests, pastures, and large wetlands. Some of the pine woodlands in this area have recently been converted to agricultural fields. The most common deer complaint in this area is browsing on young trees, especially pine regeneration.

2015 Deer Population Goal:

Increase the population 25%, relative to 2014 population, over the next 3-5 years

Summary of decision

A majority (70%) of hunters surveyed in this permit area preferred a population increase, with the greatest number (33%) preferring an increase of 25%. A majority (60%) of landowners surveyed in this permit area preferred a population increase, but nearly one third (26%) preferred no change. Public comment collected via online and written questionnaires in winter 2015 showed a majority (76%) of questionnaire respondents preferred a population increase, with the greatest number (45%) preferring an increase of 50%. After reviewing biological and social data for this permit area, the deer advisory team did not reach consensus on a recommendation. Factors considered in the team discussion included habitat availability, hunting pressure, harvest levels, forest regeneration, permit area boundaries and more. Public comment collected in spring 2015 showed that a majority of commenters preferred a population increase. The Department decided to manage for an increased deer population in recognition of stakeholder desires, current population levels, and habitat opportunities. This is an area where pine regeneration concerns exist and will need to be monitored. Similarly, access to private land for hunting opportunities can be challenging.

Management implications

- This recommendation will result in management for populations above those directed by the previous goal.
- The Department will aim for a target density of 18-22 deer per square mile (dpsm) of land area (pre-fawn) based on the 2014 model estimate of 13-19 dpsm⁴. In addition to trends indicated by the population model estimates, trends in harvest indices, WSI, and field observations will be used to assess population status.

⁴ Note that, similar to a weather forecast or budget forecast, model estimates may change over time as new information is incorporated into the model. For example, DNR deer population modeling occurs each spring prior to setting deer seasons. If the winter persists beyond the date when population estimates are developed, the estimate for that year may be different in the following year once the final data on winter severity can be included. In that case, DNR will assess the trend in the population based on the most up-to-date estimate of the 2014 population and best available data, along with other population indices.

- If milder winter conditions continue, moderate management strategies are anticipated for the next few years to move the population toward goal in this productive area.

Deer Permit Area: 246

Size of Deer Permit Area: 860 square miles total; 840 square miles of land.

2015 Population Goal: Increase the population 25%, relative to 2014 population, over the next 3-5 years.

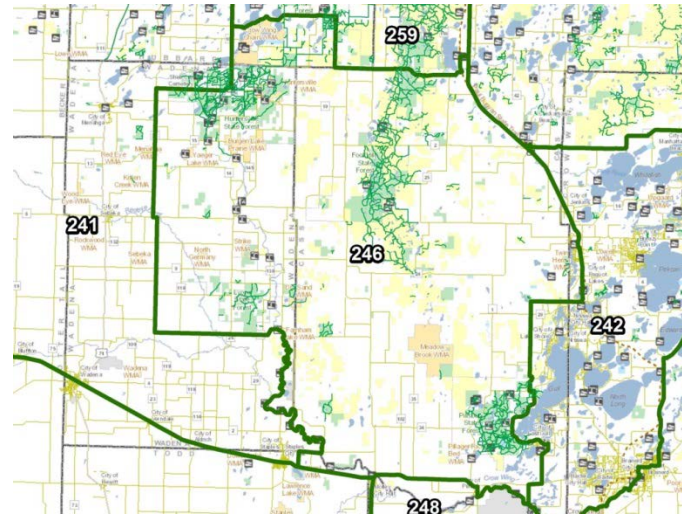
Comments: Deer Permit Area (DPA) 246 underwent a boundary change in 2010. Previously, the western boundary followed the Crow Wing River north from U.S. Hwy. 10, then west on County Rd. 15 to north on County Rd. 23 to west on County Rd. 17 to Menahga. The boundary then continued north on U.S. Hwy 71, then east on State Hwy. 87, which it followed to the unchanged northern boundary of the DPA.

| Year | Mgmt. Designation | No. Firearm Hunters | Firearm Success (%) | Reported Deer Harvest (All seasons) | | |
|-------|-------------------|---------------------|---------------------|-------------------------------------|-------|------------|
| | | | | Total | Bucks | Antlerless |
| 2005 | Intensive | 10787 | 54% | 5835 | 2082 | 3753 |
| 2006 | Intensive | 9457 | 68% | 6389 | 2178 | 4211 |
| 2007 | Managed | 9399 | 57% | 5339 | 1935 | 3404 |
| 2008 | Lottery (3000) | 9211 | 31% | 2863 | 1600 | 1263 |
| 2009 | Lottery (4000) | 9514 | 35% | 3323 | 1753 | 1570 |
| 2010* | Lottery (5500) | 11283 | 38% | 4256 | 2327 | 1929 |
| 2011 | Hunter's Choice | 11350 | 40% | 4508 | 2176 | 2332 |
| 2012 | Hunter's Choice | 11789 | 39% | 4627 | 2251 | 2376 |
| 2013 | Hunter's Choice | 11512 | 31% | 3611 | 1743 | 1868 |
| 2014 | Lottery (500) | 11174 | 21% | 2307 | 1689 | 618 |

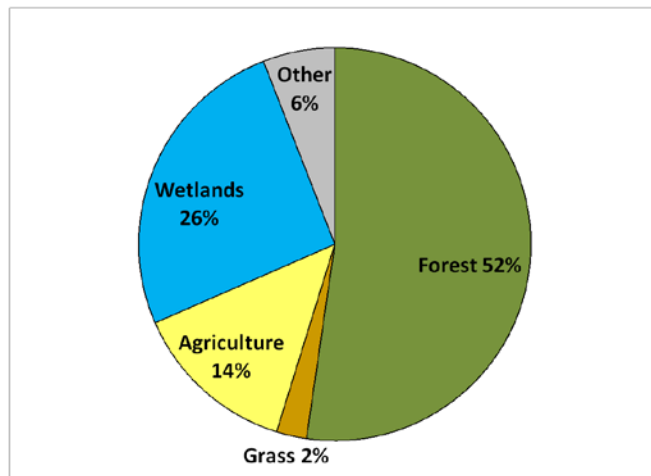
* Boundary change. Please see comments above.

Deer Permit Area: 246

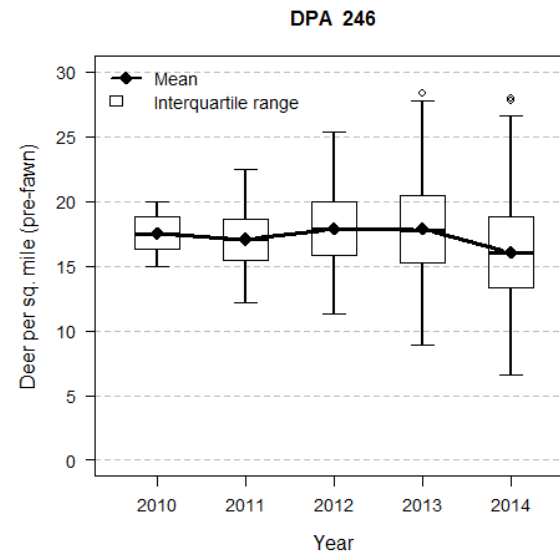
Size of Deer Permit Area: 860 square miles total;
840 square miles of land



Habitat Categories:



2014 Model Output:



Deer Permit Area 248

This deer permit area (DPA) is fairly small and has a good mixture of diverse habitat types, with about 55% of the permit area comprised of good deer habitat with woody vegetation. The permit area is mostly rural with no urban deer issues, and includes the Camp Ripley Military Reservation. The permit area has a significant amount of private land and some additional protected and public forestlands. It is bounded on the east side by the Mississippi River and includes a few larger recreational lakes. DPA 248 is a popular deer hunting area, but concerns about the deer impacts to forests and ecological systems in the area have been noted. Deer numbers have been high historically, and have impacted habitat on private and public land throughout the permit area. Deer densities declined slowly from 2006 to 2012 due to harvest regulations designed to reduce the population, with a larger decline from 2013-2014 due to severe winter weather which dropped the population below goal. Historically DNR has received a number of complaints of deer damage to orchards, vineyards and other specialty crops in this permit area.

2015 Deer Population Goal:

Increase the population 25%, relative to 2014 population, over the next 3-5 years

Summary of decision

A majority (67%) of hunters surveyed in this permit area preferred a population increase, with the greatest number (36%) preferring an increase of 10%. Approximately half (49%) of landowners surveyed in this permit area preferred a population increase, while approximately one third (34%) preferred no change. Public comment collected via online and written questionnaires in winter 2015 showed a majority (75%) of questionnaire respondents preferred a population increase, with the greatest number (43%) preferring an increase of 50%. After reviewing biological and social data for this permit area, the deer advisory team recommended a population increase of 25%; factors considered included impacts to agriculture and forests, as well as other considerations. Public comment collected in spring 2015 showed that approximately 81% of commenters supported or were ok with the team's recommendation. The Department decided to manage for an increase in the deer population in recognition of the advisory team recommendation, broader stakeholder desires, and public support for team recommendations.

Management implications

- This recommendation will result in management for populations similar, or slightly below, those directed by the previous goal.
- The Department will aim for a target density of 14-18 deer per square mile (dpsm) of land area (pre-fawn) based on the 2014 model estimate of 11-16 dpsm⁵. In addition to trends indicated by the population model estimates, trends in harvest indices, WSI, and field observations will be used to assess population status.

⁵ Note that, similar to a weather forecast or budget forecast, model estimates may change over time as new information is incorporated into the model. For example, DNR deer population modeling occurs each spring prior to setting deer seasons. If the winter persists beyond the date when population estimates are

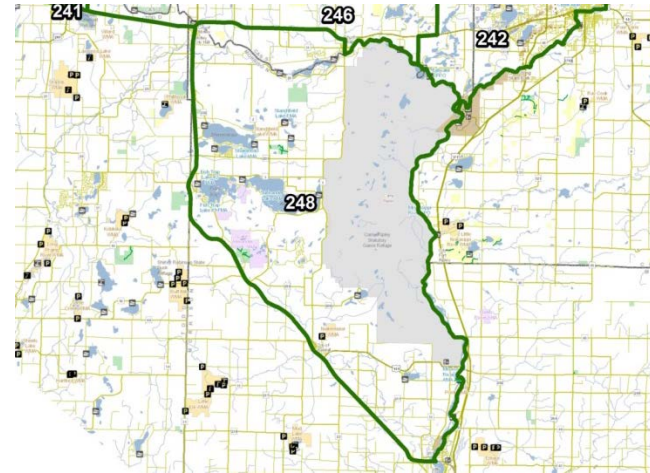
- If milder winter conditions continue, moderate-to-liberal management strategies are anticipated for the next few years to move the population toward goal in this productive area.

developed, the estimate for that year may be different in the following year once the final data on winter severity can be included. In that case, DNR will assess the trend in the population based on the most up-to-date estimate of the 2014 population and best available data, along with other population indices.

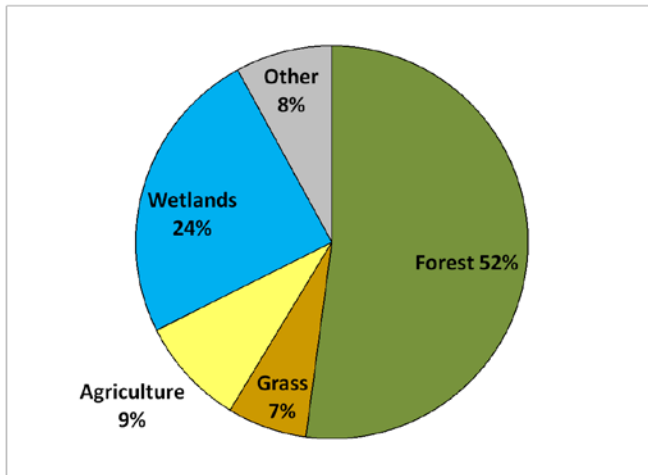
Deer Permit Area: 248
Size of Deer Permit Area: 231 square miles total; 214 square miles of land.
2015 Population Goal: Increase the population 25% relative to 2014 population.

| Year | Mgmt. Designation | No. Firearm Hunters | Firearm Success (%) | Reported Deer Harvest (All seasons) | | |
|------|-------------------|---------------------|---------------------|-------------------------------------|-------|------------|
| | | | | Total | Bucks | Antlerless |
| 2005 | Intensive | 2304 | 72% | 1670 | 641 | 1029 |
| 2006 | Intensive | 1967 | 65% | 1279 | 466 | 813 |
| 2007 | Intensive | 1942 | 71% | 1387 | 487 | 900 |
| 2008 | Managed | 1943 | 49% | 952 | 410 | 542 |
| 2009 | Managed | 1895 | 48% | 917 | 406 | 511 |
| 2010 | Managed | 1841 | 57% | 1054 | 456 | 598 |
| 2011 | Managed | 2125 | 46% | 985 | 447 | 538 |
| 2012 | Managed | 2303 | 46% | 1060 | 448 | 612 |
| 2013 | Managed | 2183 | 42% | 921 | 409 | 512 |
| 2014 | Hunter's Choice | 2240 | 39% | 878 | 432 | 446 |

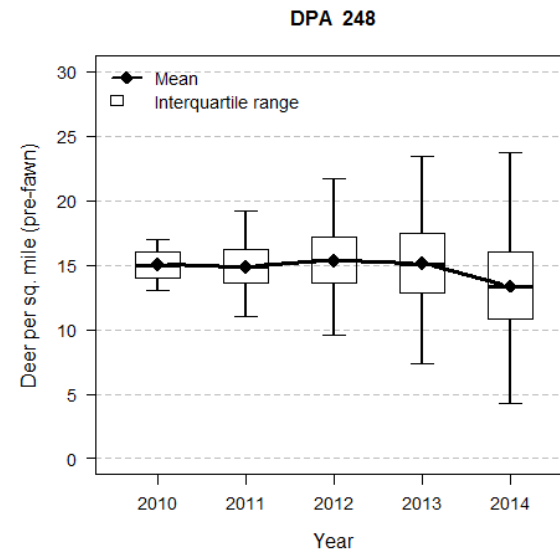
Deer Permit Area: 248
 Size of Deer Permit Area: 231 square miles total;
 214 square miles of land



Habitat Categories:



2014 Model Output:



Deer Permit Area 251

This permit area's boundaries coincide with Tamarac National Wildlife Refuge; the north half of the area is also in the White Earth Reservation. The habitat consists mostly of mixed upland deciduous forest, brush, a variety of wetlands, and shallow wildlife lakes. In addition to providing public deer hunting opportunities, managers are also interested in regenerating forests and maintaining ecological health.

2015 Deer Population Goal:

Communicate interest in a population increase of 25%, relative to 2014 population, to USFWS Refuge Managers

Summary of decision

A majority (88%) of hunters surveyed in this permit area preferred a population increase, with the greatest numbers (35% each) tied between preferring an increase of 10% and preferring an increase of 25%. Private landowners were not surveyed about this permit area because it is entirely public land (Tamarac National Wildlife Refuge). Public comment collected via online and written questionnaires in winter 2015 showed that a majority (76%) of questionnaire respondents preferred a population increase, with the greatest number (42%) preferring an increase of 50%. After reviewing biological and social data for this permit area, the deer advisory team recommended a population increase of 25%. Factors considered in the team's discussion included harvest levels, hunter satisfaction rates, biodiversity and more. Public comment collected in spring 2015 showed that approximately 81% of commenters supported or were ok with the team's recommendation. Management objectives for the NWR, based on their 2010 Comprehensive Conservation Plan (CCP) would suggest a slightly lower population increase. The CCP also underwent public review. DNR will coordinate management with the USFWS to increase the deer population in DPA 251 while also recognizing management objectives of the Refuge.

Management implications

- This recommendation will result in management for populations above those directed by previous goals, both based on state goal-setting (2005-07) and federal objectives (2010). Based on the Refuge's CCP, the USFWS would prefer a smaller increase in the population.
- Because the population is not modeled (due to its small size), a target density is not available. Trends in harvest indices, WSI, and field observations will be used to assess population status.
- If milder winter conditions continue, conservative-to-moderate management strategies are anticipated for the next few years to move the population toward goal in this productive area.

Deer Permit Area: 251

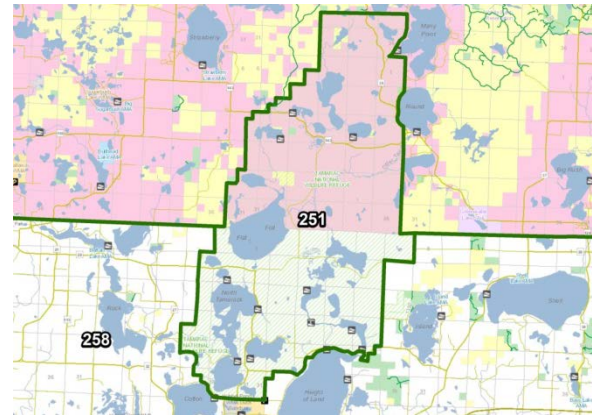
Size of Deer Permit Area: 68 square miles total; 55 square miles of land.

2015 Population Goal: Communicate interest in a population increase of 25%, relative to 2014 population, to USFWS Refuge Managers.

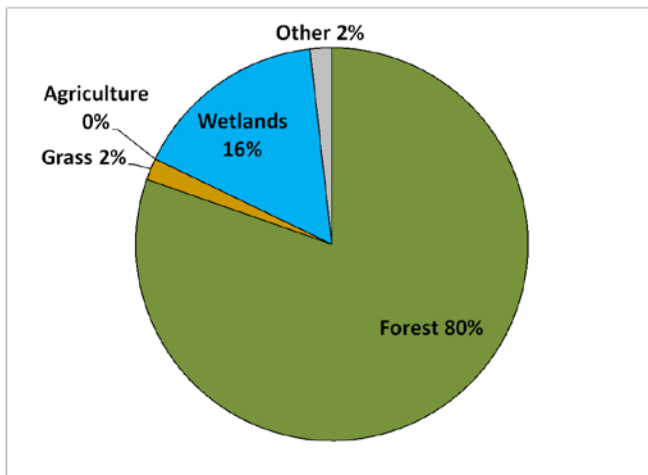
Comments: This is the Tamarack National Wildlife Refuge. The population for this small area is not modeled.

| Year | Mgmt. Designation | No. Firearm Hunters | Firearm Success (%) | Reported Deer Harvest (All seasons) | | |
|------|-------------------|---------------------|---------------------|-------------------------------------|-------|------------|
| | | | | Total | Bucks | Antlerless |
| 2005 | Managed | 728 | 45% | 325 | 128 | 197 |
| 2006 | Managed | 594 | 50% | 299 | 145 | 154 |
| 2007 | Managed | 565 | 45% | 253 | 91 | 162 |
| 2008 | Managed | 531 | 27% | 143 | 58 | 85 |
| 2009 | Managed | 557 | 36% | 199 | 63 | 136 |
| 2010 | Lottery (300) | 518 | 31% | 158 | 86 | 72 |
| 2011 | Lottery (200) | 543 | 20% | 109 | 58 | 51 |
| 2012 | Lottery (200) | 568 | 26% | 150 | 88 | 62 |
| 2013 | Lottery (200) | 568 | 24% | 134 | 88 | 46 |
| 2014 | Lottery (100) | 566 | 22% | 124 | 82 | 42 |

| | |
|----------------------------------|---|
| Deer Permit Area: | 251 |
| Size of Deer Permit Area: | 68 square miles total; 55 square miles of land |



Habitat Categories:



2014 Model Output:

This area is not modeled due to its small size.

Deer Permit Area 258

This permit area contains large blocks of public forestland and a significant amount of private land as well. The area contains good forested deer habitat consisting of mixed conifer and deciduous forest, a variety of wetlands, and some agricultural fields. This area has supported relatively high deer densities in the past, but there are some concerns with deer damage to tree regeneration.

2015 Deer Population Goal:

Increase the population 25%, relative to 2014 population, over the next 3-5 years

Summary of decision

A majority (69%) of hunters surveyed in this permit area preferred a population increase, with the greatest number (31%) preferring an increase of 10%. A majority (54%) of landowners surveyed in this permit area preferred a population increase, but approximately one third (34%) preferred no change. Public comment collected via online and written questionnaires in winter 2015 showed that a majority (79%) of questionnaire respondents preferred a population increase, with the greatest number (52%) preferring an increase of 50%. After reviewing biological and social data for this permit area, the deer advisory team recommended a population increase of 25%. Factors considered in the team's discussion included hunter satisfaction and success rates, habitat availability and quality, and more. Public comment collected in spring 2015 showed that approximately 85% of commenters supported or were ok with the team's recommendation. The Department decided to manage for an increase in the deer population in recognition of the advisory team recommendation, broader stakeholder desires, and public support for team recommendations.

Management implications

- This recommendation will result in management for populations above those directed by the previous goal.
- The Department will aim for a target density of 20-25 deer per square mile (dpsm) of land area (pre-fawn) based on the 2014 model estimate of 15-20 dpsm⁶. In addition to trends indicated by the population model estimates, trends in harvest indices, WSI, and field observations will be used to assess population status.
- If milder winter conditions continue, moderate management strategies are anticipated for the next few years to move the population toward goal in this productive area.

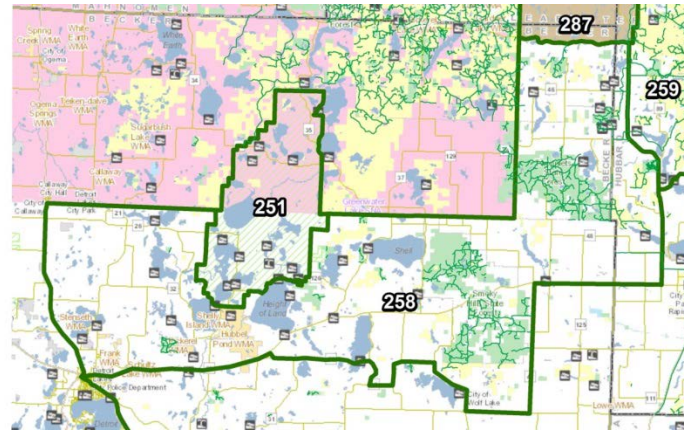
⁶ Note that, similar to a weather forecast or budget forecast, model estimates may change over time as new information is incorporated into the model. For example, DNR deer population modeling occurs each spring prior to setting deer seasons. If the winter persists beyond the date when population estimates are developed, the estimate for that year may be different in the following year once the final data on winter severity can be included. In that case, DNR will assess the trend in the population based on the most up-to-date estimate of the 2014 population and best available data, along with other population indices.

Deer Permit Area: 258
Size of Deer Permit Area: 381 square miles total; 343 square miles of land.
2015 Population Goal: Increase the population 25%, relative to 2014 population, over the next 3-5 years.
Comments: Deer Permit Area 258 was established in 2010

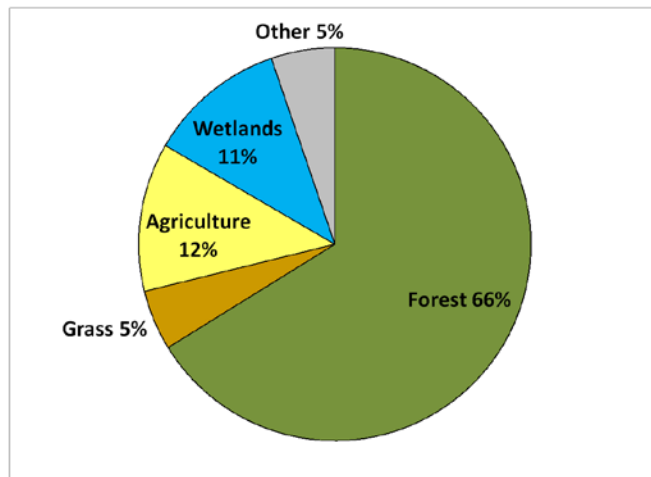
| Year | Mgmt. Designation | No. Firearm Hunters | Firearm Success (%) | Reported Deer Harvest (All seasons) | | |
|------|-------------------|---------------------|---------------------|-------------------------------------|-------|------------|
| | | | | Total | Bucks | Antlerless |
| 2010 | Lottery (2000) | 4098 | 39% | 1601 | 915 | 686 |
| 2011 | Hunter's Choice | 4205 | 39% | 1650 | 767 | 883 |
| 2012 | Lottery (2000) | 4646 | 34% | 1599 | 928 | 671 |
| 2013 | Hunter's Choice | 4348 | 37% | 1592 | 810 | 782 |
| 2014 | Lottery (500) | 4308 | 27% | 1168 | 805 | 363 |

Deer Permit Area: 258

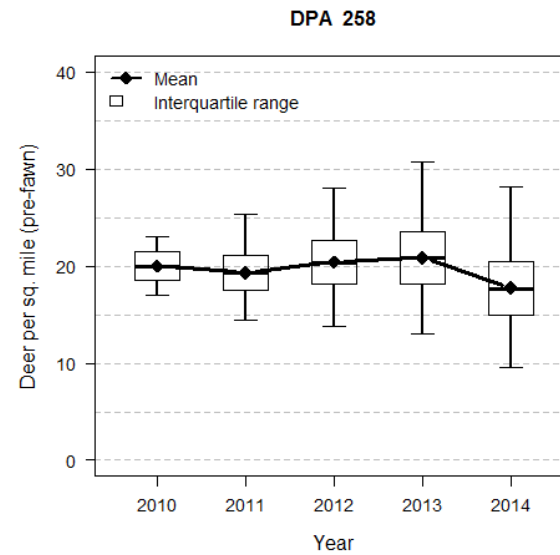
Size of Deer Permit Area: 381 square miles total;
343 square miles of land



Habitat Categories:



2014 Model Output:



Deer Permit Area 259

This permit area contains large blocks of public forestland and larger blocks of private land associated with lakes and other recreational activities. The area contains good forested deer habitat consisting of mixed pine and aspen forest, generally small wetlands, and a number of recreational lakes with some agriculture. This area has supported relatively high deer densities in the past, but there are some continuing concerns with deer damage to tree regeneration, especially pine seedlings.

2015 Deer Population Goal:

Increase the population 25%, relative to 2014 population, over the next 3-5 years

Summary of decision

A majority (80%) of hunters surveyed in this permit area preferred a population increase, with the greatest number (37%) preferring an increase of 25%. Approximately half (46%) of landowners surveyed in this permit area preferred no change in the population, while slightly less (42%) preferred a population increase. Public comment collected via online and written questionnaires in winter 2015 showed that a majority (80%) of questionnaire respondents preferred a population increase, with the greatest number (49%) preferring an increase of 50%. After reviewing biological and social data for this permit area, the deer advisory team recommended a population increase of 50%. Factors considered in the team's discussion included hunter satisfaction, deer "hot spots" (local pockets of higher deer populations) and more. Public comment collected in spring 2015 showed that approximately 81% of commenters supported or were ok with the team's recommendation. The Department decided to manage for an increase in the deer population in recognition of the advisory team recommendation, broader stakeholder desires, and public support for team recommendations. However, the decision to aim for a more moderate (25%) population increase in the deer population is a response to concerns that management to achieve significantly higher densities (> 20 deer per square mile) would likely result in lower harvest opportunity in the short- and long-term given the habitat mix and hunting pressure, the influence of winter severity on deer populations in this area, and concerns about anticipated browsing impacts.

Management implications

- This recommendation will result in management for populations similar to those directed by the previous goal.
- The Department will aim for a target density of 18-22 deer per square mile (dpsm) of land area (pre-fawn) based on the 2014 model estimate of 14-18 dpsm⁷. In addition to trends indicated by the population model estimates, trends in harvest indices, WSI, and field observations will be used to assess population status.

⁷ Note that, similar to a weather forecast or budget forecast, model estimates may change over time as new information is incorporated into the model. For example, DNR deer population modeling occurs each spring prior to setting deer seasons. If the winter persists beyond the date when population estimates are

- If milder winter conditions continue, conservative-to-moderate management strategies are anticipated for the next few years to move the population toward goal in this productive area.

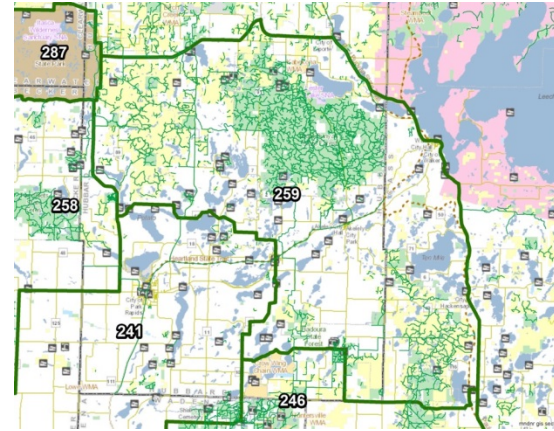
developed, the estimate for that year may be different in the following year once the final data on winter severity can be included. In that case, DNR will assess the trend in the population based on the most up-to-date estimate of the 2014 population and best available data, along with other population indices.

Deer Permit Area: 259
Size of Deer Permit Area: 546 square miles total; 490 square miles of land.
2015 Population Goal: Increase the population 25%, relative to 2014 population, over the next 3-5 years.
Comments: Deer Permit Area 259 was established in 2010.

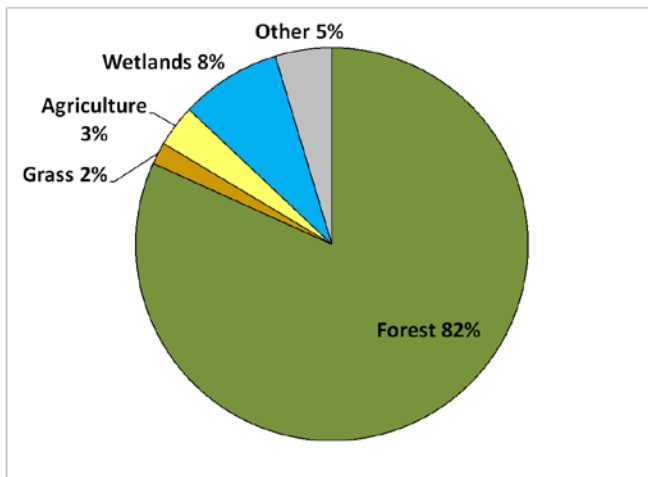
| Year | Mgmt. Designation | No. Firearm Hunters | Firearm Success (%) | Reported Deer Harvest (All seasons) | | |
|------|-------------------|---------------------|---------------------|-------------------------------------|-------|------------|
| | | | | Total | Bucks | Antlerless |
| 2010 | Lottery (3000) | 7257 | 37% | 2685 | 1556 | 1129 |
| 2011 | Managed | 7952 | 47% | 3767 | 1436 | 2331 |
| 2012 | Hunter's Choice | 8292 | 41% | 3438 | 1730 | 1708 |
| 2013 | Hunter's Choice | 7665 | 36% | 2764 | 1367 | 1397 |
| 2014 | Lottery (500) | 7327 | 21% | 1532 | 1079 | 453 |

Deer Permit Area: 259

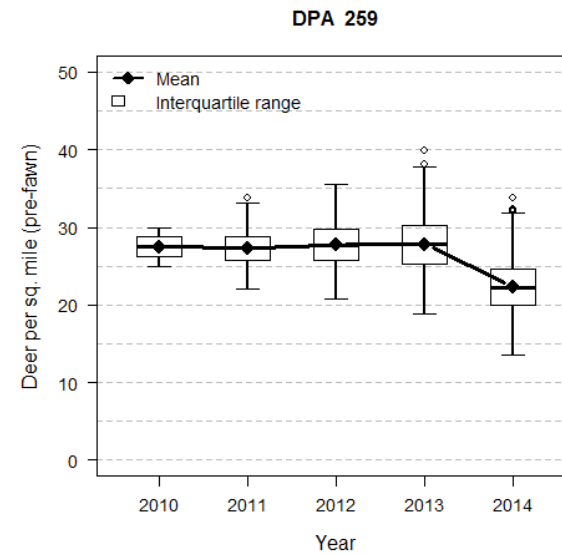
Size of Deer Permit Area: 546 square miles total;
490 square miles of land



Habitat Categories:



2014 Model Output:



Deer Permit Area 287

This permit area's boundaries coincide with Itasca State Park. The park contains mostly upland forests, including mixed red and white pine forests and mixed deciduous forests, with a number of small wetlands and a few lakes. Deer hunting is used to control deer populations, so pine can be regenerated and ecological health maintained.

2015 Deer Population Goal:

Stabilize at 2014 population levels over the next 3-5 years

Summary of decision

A majority (83%) of hunters surveyed in this permit area preferred a population increase, with the greatest number (42%) preferring an increase of 50%. Private landowners were not surveyed about this permit area because it is entirely public land (Itasca State Park). Public comment collected via online and written questionnaires in winter 2015 showed that a majority (74%) of questionnaire respondents preferred a population increase, with the greatest number (44%) preferring an increase of 50%. After reviewing biological and social data for this permit area, the deer advisory team recommended no change relative to the 2014 population. Factors considered in the team's discussion included hunter satisfaction, park reforestation and more. Public comment collected in spring 2015 showed that approximately 58% of commenters supported or were ok with the team's recommendation; those commenters who did not support the team's recommendation were divided between preferring a population decrease and preferring a population increase. The Department decided to manage for no change in the deer population in recognition of the advisory team recommendation and public support for team recommendations. While survey data and public input suggest interest in a significant population increase, the goal for this area reflects the management objectives for Itasca State Park in response to MN Statutes 86A.05 subd. 2c.

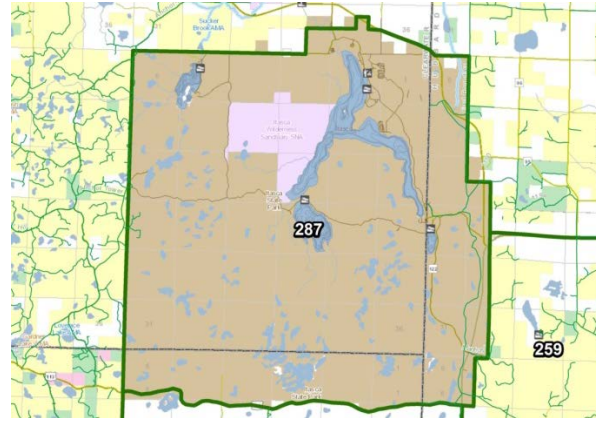
Management implications

- This recommendation will result in management for population above those directed by the previous goal.
- Because the population is not modeled (Due to the area's small size), a target density is not available. Trends in harvest indices, WSI, and field observations will be used to assess population status.
- If milder winter conditions continue, moderate-to-liberal management strategies are anticipated for the next few years to move the population toward goal in this productive area.

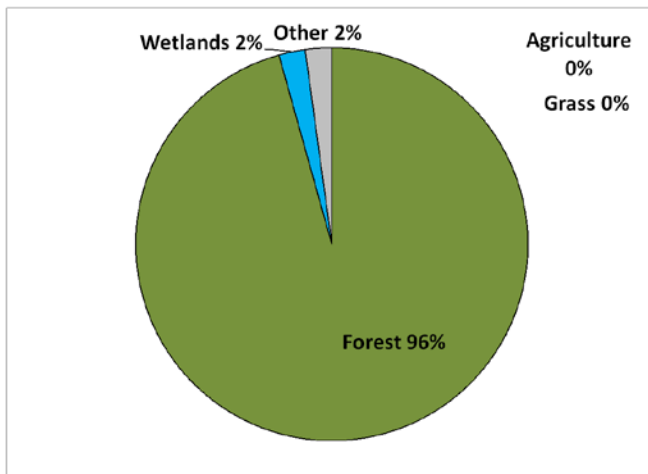
Deer Permit Area: 287
Size of Deer Permit Area: 51 square miles total; 46 square miles of land.
2015 Population Goal: Stabilize at 2014 population levels over the next 3-5 years.
Comments: This is Itasca State Park. The population for this small area is not modeled.

| Year | Mgmt. Designation | No. Firearm Hunters | Firearm Success (%) | Reported Deer Harvest (All seasons) | | |
|------|-------------------|---------------------|---------------------|-------------------------------------|-------|------------|
| | | | | Total | Bucks | Antlerless |
| 2005 | Intensive | 709 | 39% | 279 | 105 | 174 |
| 2006 | Intensive | 612 | 51% | 311 | 105 | 206 |
| 2007 | Intensive | 555 | 55% | 305 | 92 | 213 |
| 2008 | Intensive | 565 | 44% | 249 | 81 | 168 |
| 2009 | Intensive | 660 | 46% | 301 | 85 | 216 |
| 2010 | Intensive | 604 | 51% | 308 | 63 | 245 |
| 2011 | Intensive | 658 | 39% | 259 | 74 | 185 |
| 2012 | Intensive | 675 | 60% | 406 | 120 | 286 |
| 2013 | Intensive | 656 | 50% | 326 | 108 | 218 |
| 2014 | Managed | 642 | 37% | 238 | 69 | 169 |

Deer Permit Area: 287
Size of Deer Permit Area: 51 square miles total;
46 square miles of land



Habitat Categories:



2014 Model Output:

This area is not modeled due to its small size.

References

MNDNR. 2014. *2014 Minnesota Deer Harvest Report*. St. Paul, Minnesota. 44pp.

MNDNR. 2015. *Minnesota Deer Population Goal Setting Packet: Superior Uplands Arrowhead Goal Block 2015*. St. Paul, Minnesota. 66pp.
with addendum.

MNDNR. 2015. *Superior Uplands Arrowhead: Deer Goal Setting – Block 1 Landowner and Hunter Survey Results*. St. Paul, Minnesota. 32pp.