

# DMU 026

## Gladwin County

### Deer Management Unit

#### Area Description

The Gladwin County Deer Management Unit (DMU) 026 is in the Northern Lower Peninsula (NLP) Region. This County has roughly 337, 920 acres and consists of nearly 66% forested (38% is in state ownership; mostly located east of M-30); 17% crop land, and 13% pasture and idle grasslands. About 3 % of the land use is urban. Topography varies from rolling hills to areas that are relatively flat. Soils are primarily sandy and well drained. The eastern portion of the county is dominated by a large block of state land. This block is mostly forested and provides excellent habitat for deer. The private land consists of large blocks of agricultural land intermixed with forest. Gladwin County has a human population density of 51.2 persons per square mile and population levels are expected to remain stable through 2020. Gladwin County ranks 20th in the state for seasonal homes. The real estate market for recreational hunting properties is very active highlighting the importance of deer hunting to the local economy.

DMU 026 is situated in the Gladwin Forest Management Unit. Forest cover is predominantly shade intolerant trees comprised mostly of aspen, oak and mixed upland deciduous. Early successional forests are common east of M-30. These forests, by design, have been managed for wildlife with a focus on deer and upland game birds.

Gladwin County has historically experienced some of the highest deer population densities and harvests in the state, and continues to draw many down-state hunters to public lands during the firearms deer season. Deer population densities, now considerably reduced relative to historic highs, have remained relatively stable during the past four years. However, complaints from hunters have increased recently concerning reduced deer densities. Winter conditions do not typically impact deer in Gladwin County. Deer Population levels are primarily influenced by regulated hunting.

#### Management Guidance

Two main goals guide the deer management in this DMU: 1) impact management; and 2) hunting opportunities. Impact management refers to reduction of undesirable effects associated with deer over-abundance. Crop damage, deer-vehicle collisions, and poor forest regeneration due to over-browsing are examples. In an effort to find a middle-ground in which deer numbers provide ample hunting and wildlife viewing opportunities and mitigate unwanted impacts, we review data from several sources to adjust the harvest strategy as needed. These data include deer harvest data from check stations and an annual mail survey of hunters, the winter severity index, deer-vehicle collision data from the Michigan State Police, and deer-related information collected by regional wildlife biologists (e.g., number of Crop Damage Permits, spotlight surveys and habitat assessments).

## Population Assessment Factors

### Winter Severity Index

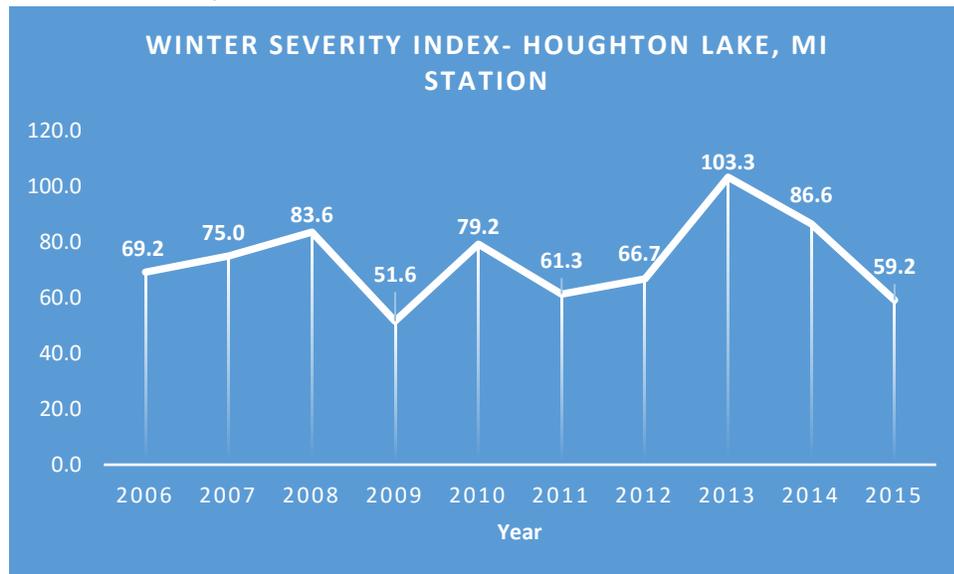


Figure 1: Houghton Lake Areas Winter Severity Index from 2006 to 2015

In northern Michigan, winter severity has a direct impact on deer condition at the population level. Whereas mild winters allow for better survival of deer, severe winters can cause high deer mortality. In addition, female deer may abort fetuses in order to survive which results in lower birth rates the following year. Winter severity has been variable over the last four years. The mild winters observed have allowed for a slight increase in the deer population. The current management strategy centers on maintaining the population at the current level by adjusting private land antlerless license quotas. Consideration will be given to hunter densities on public lands when setting public land antlerless quotas. Deer Damage Assistance Permits (DMAPs) will continue to be the primary means of addressing areas of high deer density where crop damage is prevalent on private lands.

The current WSI system takes advantage of standard weather data available from the National Climatic Data Center. The Department of Natural Resources (DNR) uses weekly data on air temperature, wind speed, and precipitation from weather stations throughout Michigan and the surrounding area to calculate a weekly index value from November through April. For monitoring deer related trends in Isabella County, only the Houghton Lake Area WSI station data were used. The DNR plots these values over time to provide insight into the pattern of winter severity over the course of the winter and to identify severe weather events. Extended periods of severe weather and very early or very late peaks in severity within a winter tend to have the greatest effect on deer. The above graph shows the cumulative WSI, or the overall severity of each complete winter season. Despite several harsher winters over the past 10+ years, the last couple winters have been mild. Winter severity is the most important factor influencing deer population levels in the Northern Lower Peninsula. Relatively mild winters allow for increased deer survival, particularly for fawns which are typically the most vulnerable. Furthermore, mild winter tend to be positively affects newborn survival. In general, milder winters tend to favor an increase in deer population levels.

## Deer Vehicle Collisions Data

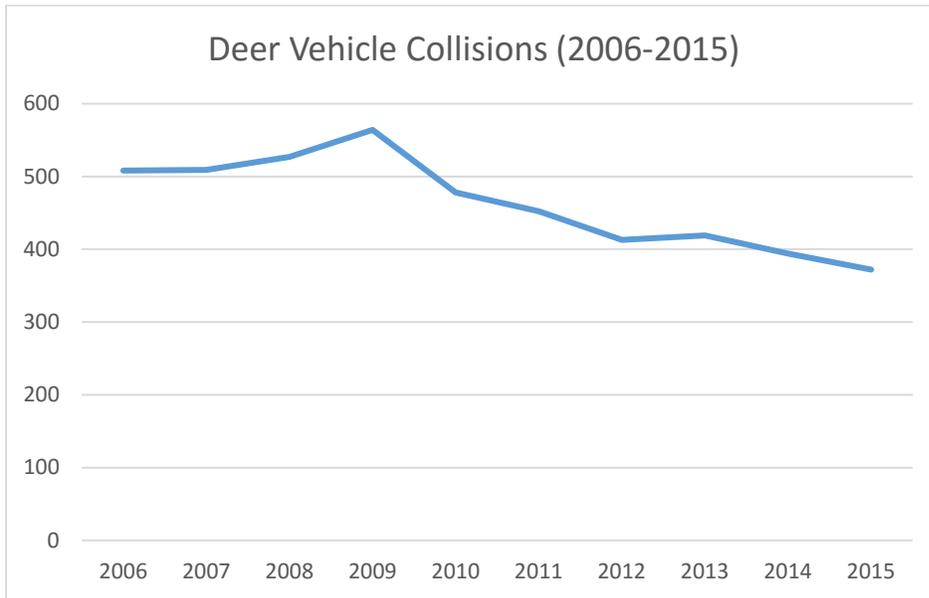


Figure 2: Gladwin County Deer Vehicle Collisions 2006 to 2015

Collisions between vehicles and deer in Gladwin County, over the past four years, are slightly decreasing. This indicates a stable to slightly decreasing deer population.

## Deer Harvest Analysis 2006-2015

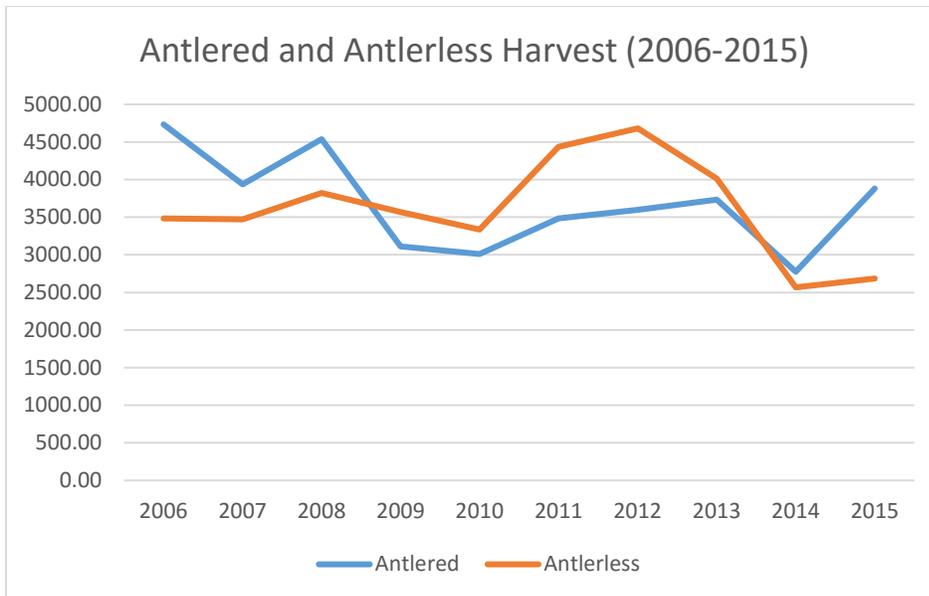


Figure 3: Antlered and Antlerless Harvest Gladwin County 2006 to 2015

Antlerless deer harvest within the DMU has declined over the past four years while antlered deer harvest has remained somewhat stable. The trend in antlerless harvest is also reflected by the decline in the number of private land antlerless licenses purchased over this same period. Both the antlered and antlerless harvest indicates that the population is likely stable to increasing. While it can be difficult to

pinpoint exactly what is causing a population to increase or decrease we can make predictions based on past trends and looking at a number of factors that can indicate changes in populations.

In Gladwin County over the past four years, farms with Deer Damage Shooting Permits (DDSPs) issued have varied from a low of 4 to a high of 12. The number of total DDSP Tags issued under these permits have varied from a low of 67 to a high of 91. DMAPs issued over the past four years involve an average of 2 farms per year. Number of DMAP tags issued averaged 41 per year. Crop damage by deer in Gladwin County is not significant at this time. The number of deer crop damage complaints will be closely monitored for the next three years. A significant increase or decrease in complaints can be used to as an indicator of deer population trends.

Negative impacts by deer browsing on regenerating forest stands has not been significant over the past four years in Gladwin County.

### Deer Condition Data 2006-2015

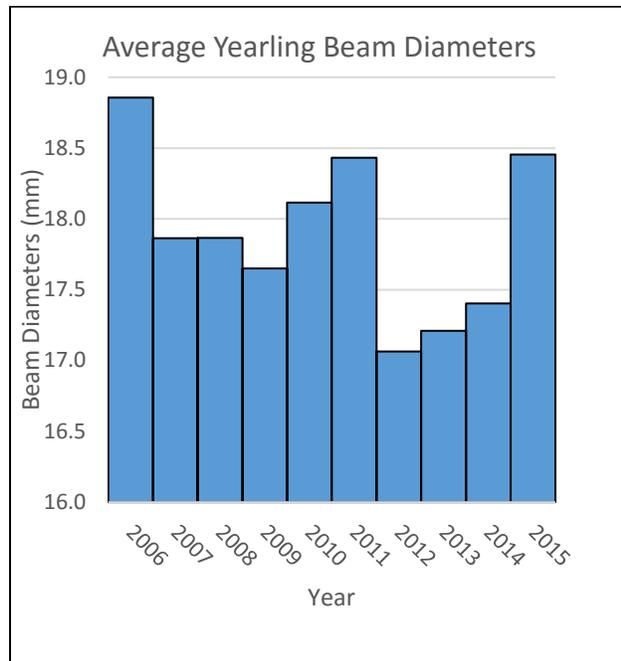


Figure 4: Gladwin County Average Yearling Beam Diameters 2006 to 2015

Antler beam diameter measurements taken from harvested yearling bucks have been generally consistent over the past 10 years, with small variation from year to year. Beam diameter measurements give an indication of overall health of the deer population. Lower average beam diameters in yearling bucks could indicate increasing competition for available browse due to a higher number of deer on the landscape. These data suggest that nutrition is not a big influence on the deer population over this timeframe.

## Deer Management Recommendations

Gladwin County DMU 026 has a deer population that has been fairly stable the past four years. There has not been significant change, up or down, in the number of crop damage complaints and only a slight decrease in the number of car-deer crashes. Harvest of antlerless deer over this same period has been nearly stable. Antler beam diameter measurements taken from harvested bucks have been very consistent over the past 10 years, with some variation year to year.

Hunting opportunities in DMU 026 are plentiful. The 128,410 acres of public land provide numerous opportunities for deer hunting and include ample locations for hunter access. On the 209,510 acres of private land the opportunities for hunting deer are also abundant, in fact there are many tracts of private land that are used explicitly for deer hunting. A casual deer hunter camp survey, on public land, has been conducted by DNR Wildlife Division staff the past three years and indicates that hunting pressure on these public lands may be slightly decreasing. Law Enforcement and Forest Resource Divisions have provided input and concur with the 2017-2019 proposed deer regulations for Gladwin County.

We are recommending a late private land antlerless firearm season for DMU 026. This recommendation is based on the number of deer damage complaints related to agricultural crops which will allow for an increased capacity for landowners to take antlerless deer. We are also recommending that antlerless licenses be made available to hunters for both private and public land with no changes. The recommendation for antlerless quotas will be very similar to what has been recommended in the past four years. The strategy, at this time, is to keep the deer population at the level it is at currently. Stabilizing these regulations for the next three years will manage deer numbers within acceptable levels for hunters as well as for forest health and agriculture.

# Deer Management Unit 26



## Legend

Deer Management Units Polys Edit	Open Water	Hay/Pasture
Highway	Developed	Cultivated Crops
Cities	Forested	Wetlands
	Herbaceous	

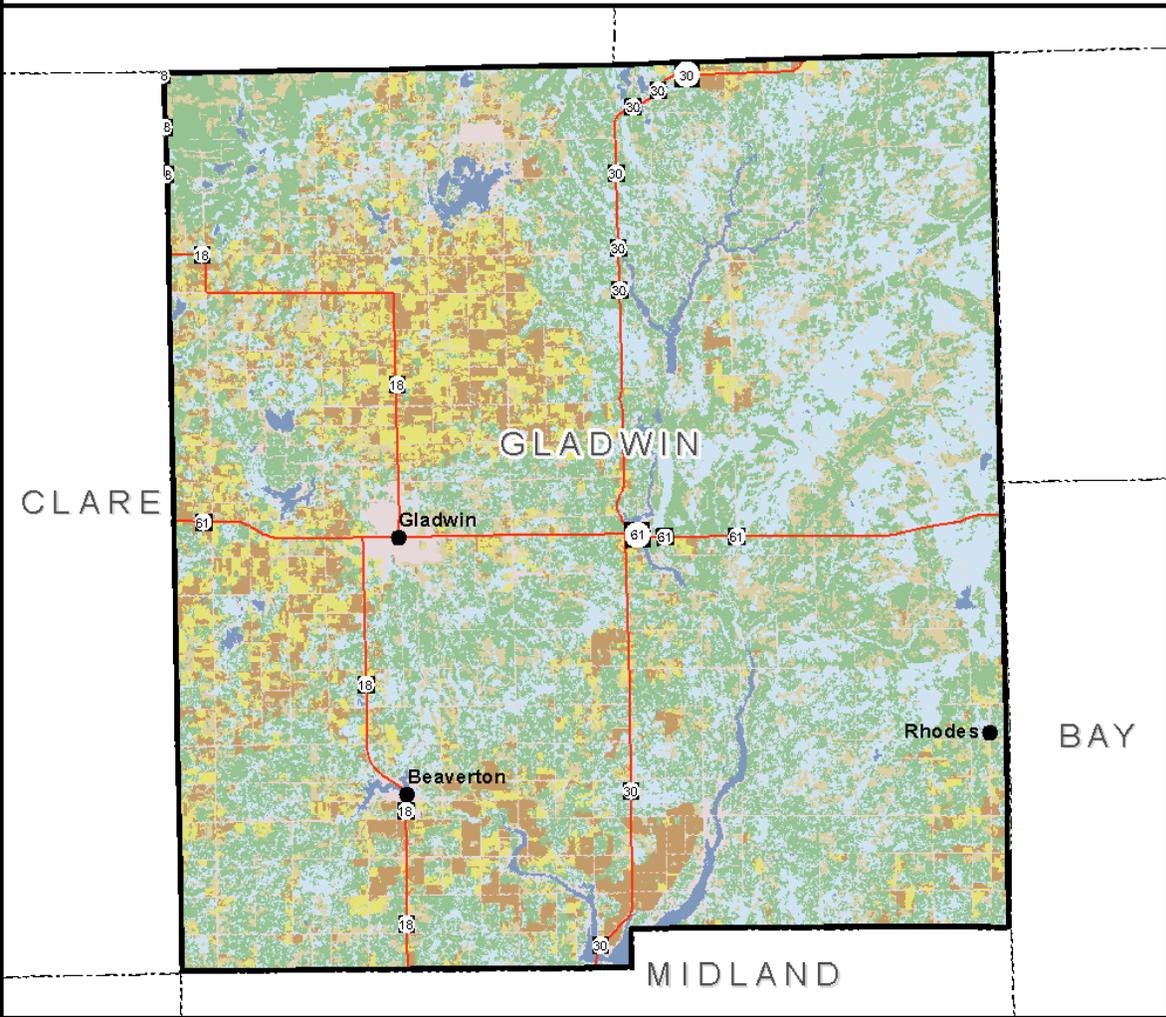


Figure 5: Map of DMU 026 depicting cover types within the unit.