



MIDLAND COUNTY MOSQUITO CONTROL

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Criteria and Standards for Inclusion of Long Driveways and Trails in Fogging Routes Revised August 2018

Midland County Mosquito Control (MCMC) focuses on area-wide mosquito reduction to decrease disease risk and improve quality of life. Several adult mosquito fogging routes are established among county townships. Routes primarily utilize public roads, however, the addition of driveways and property trails can be a benefit to the regular route by covering deeper into the section. This can be particularly beneficial in rural areas where there is an abundance of larval mosquito habitat and fewer roadways per unit area. During adulticiding, MCMC's goal is to cover the area sufficiently and return as quickly as possible. In most cases, adding a driveway/trail also adds to the fog route completion time, which reduces the frequency that residents benefit from repeated fogging. Therefore, coverage by inclusion of driveways/trails must be balanced with the added time required to divert off of roads to fog these areas. In most cases, fogging a driveway requires that the fog unit be turned off as the truck reaches the end of the drive and turns around. For example, an analysis of fogging routes and long driveways conducted in 2107 revealed that fogging of driveways/trails was 1.6-2.1 times less effective as fogging from roads alone with regard to the time/area-treated comparison. Yet, among the rural routes analyzed, addition of long drives allowed for 16-29% additional coverage among the total area affected during the route.

Driveways. Here are the criteria/considerations for long driveway inclusion as of summer 2017:

- The area isn't already sufficiently covered in the regular route.
- The address considered for adulticiding is a primary residence.
- The length of the driveway from the home to the road is 600 feet or more.
- The home is protected from the road adulticiding operation by vegetation or other obstructions such as buildings.
- The driver can easily and safely turn around in the driveway and not travel over lawn.
- The driveway is sufficiently wide for a full size truck and paved/graveled.
- The driveway must be in good enough condition for adulticiding with a two-wheel drive vehicle at a speed of 10 mph.
- The home doesn't have a close neighbor already receiving long driveway fogging that would benefit them.
- The home isn't on a corner where it is already receiving treatment from two sides.
- The address is across from a no-spray that requires fogging shut down along the road.
- The prevailing winds in the area and the expected drift of fog are favorable for fogging.

The above conditions must be maintained in order to continue to receive driveway service. If a drive becomes overgrown, develops low spots that make maintaining 10 MPH unviable or is consistently blocked with parked vehicles or other obstacles, MCMC reserves the option of

removing the drive permanently or temporarily until the needed correction is made by the property owner.

Driveways within 300 ft of a bee hive make fogging particularly risky by increasing the opportunity of inadvertently fogging too close to the hive. In most cases, residents should ensure that bee colonies are beyond 300 ft from the drive for continued service.

Trail Fogging. Inclusion of trails on fogging routes can provide additional fog coverage in areas where there is abundant mosquito habitat, and in areas such as rural townships where there is limited access via county roads. Here are some instances where including trails benefits the fogging program:

- The area isn't already sufficiently covered in the regular route.
- The address is across from a no-spray that requires fogging shut down along the road.
- The trail offers access to an area with abundant larval habitat and was perhaps not treated before adult emergence.
- The trail is in good enough condition for adulticiding with a two-wheel drive vehicle at a speed of 10 mph.
- The trail doesn't have a close neighbor already receiving long driveway fogging that would benefit them.
- The property isn't on a corner where it is already receiving treatment from two sides.
- Additional treatment along a trail will provide control for more than just a single landowner, i.e. it will disrupt movement of mosquitoes from a wooded source to a populated area.
- The area is near a source of abundant and untreated area that provide a high number of adult mosquitoes (e.g. bordering state forest)
- Fogging the trail allows for connection of various portions of the route and minimizes doubling back on roads already fogged.
- The prevailing winds in the area and the expected drift of fog are favorable for fogging.

Concerns to consider with the inclusion of long driveways and trails

- MCMC must rely on the landowner to maintain the driveway and provide a sufficient turnaround. This is essential for continued service.
- Driveways may become blocked by a parked vehicle. Trails may be come blocked by a fallen tree.
- Trails offer the greatest risk of causing a stuck truck, particularly in the spring.
- Getting a vehicle unstuck affects both the route the truck was fogging as well as the Foreman's route who must divert to assist.
- It's estimated that the majority of damage to vehicles involves fogging driveways and trails.
- There is the potential for the impression of favoritism for the resident receiving this service, particularly if neighbors are being denied driveway service.

It is important that rationale for each driveway be defensible should it be questioned by a

resident, County Commissioner, etc. We must do our best to apply these standards consistently. Here are some instances where there can be some discrepancies:

- Cases where the long driveway was approved when the standards were different, e.g. the minimum distance was 400 ft vise 600 ft at the time of approval. These drives are usually maintained on the route under the principle of grandfathering as to not remove established service.
- The area surrounding the driveway/trail has changed since approval (e.g. construction or development) and would not make a good candidate now compared to the time it was approved.
- Some drives that are under 600 ft are included in routes when the driveway occurs at the end of a dead end road. These driveways allow for more fog penetration into the area and do not require much more in the way of added time to the route.

Continued inclusion of driveways and trails will be periodically reexamined in light of current circumstances such as changes in the area, the overall time needed to complete the route, condition of the drive/trail and other safety or hazard concerns.

Beginning in 2019 a deadline for driveway service requests (anticipated 15 May) will be established. This will minimize the need to continually revise routes during the season and will assist support staff and technicians. Any requests received after the deadline will be evaluated for inclusion in the following year's route.