



## Aquatic Consulting Services

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P.O. Box 530, Sanford, MI 48657  
[www.aquaticremedies.com](http://www.aquaticremedies.com)

989-689-0223

December 19, 2020

**Mr. Mark Klumpp, Supervisor**  
**Morton Township**  
**290 W Main St/PO Box 2**  
**Mecosta, MI 49332**  
**(231) 972-7138**

Dear Mr. Klumpp:

We have completed the gypsy moth surveys, maps, and report for the 2021 season in Morton Township, Mecosta County. I have included JPG and PDF map files of the results for you to review and to post on the city website as needed. Both JPG and PDF files are printable for your purposes although the .PDF file will likely be more user friendly on a website. I will provide your GIS personnel with .SHP files for use in a GIS mapping system. I have also included a short report on the conditions in each recommended spray block. An 18 x 24 inch map is being sent in a separate package for display purposes.

During our survey, we were able to confirm that the areas of concern referenced by Morton Township officials and residents are in fact infested with gypsy moths. Several of the areas showed evidence of successive years of infestation, but as seems to be the case across much of the state, the newly deposited egg masses from summer 2020 were the most numerous. There are three major environmental controls that limit gypsy moth population buildups; a fungus called *E. maiaimiga*, a gypsy moth virus called NPV, and a class of egg parasitoid wasps. For some reason, these environmental controls have not been as effective as they have been in past years. Gypsy moth scientists suspect that successive years of untimely dry conditions in mid-late June have depressed the critical buildup of *E. maiaimiga* in the environment. Regardless, we are dealing with a fairly high pressure and volatile gypsy moth population cycle across the state, but we are optimistic that our methods will provide some relief. Thankfully, we were able to catch the populations on the rise, and using our survey, spray, monitor protocol, I anticipate we will be able to limit further population growth and damage. I must emphasize though, when in a growth phase, gypsy moth populations can be quite resilient and several years of treatment and monitoring are often needed. Established populations in prime habitat such as in spray blocks Mort11 & 12, Mort14 & 15, and Mort26, can be especially hardy and often require 2-3 years of spray just to suppress population growth. The total acreage recommended for spray in spring 2021 is 1,452 acres. This total may be higher or lower than you anticipated, but I must assure you, only the areas with significant, potentially damaging population densities were recommended for spray. There are a few areas with less severe infestations that were not recommended but should definitely be monitored. A proactive approach toward monitoring can usually prevent this type of situation and is much more economical relative to several years of costly reactionary spraying. Overall, I anticipate good results for next season, but strongly encourage Morton Township to continue with some sort of monitoring program.

I will hold off on digitizing the spray blocks for the pilot's use until you have had a chance to review the maps. Once we get closer to spray time and you have selected an aerial applicator, I will provide the pilot with spray maps and digitized files.

Thank you for the opportunity to work for Morton Township this season. Please let me know if I can help you with anything further at this time. 989-689-0223 or [gypsymoth@aquaticremedies.com](mailto:gypsymoth@aquaticremedies.com).

Sincerely,

Neal Swanson  
Owner/Biologist