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## PUBLIC POLICY ANALYSIS

# Michigan's Right to Farm Act and New Generally Accepted Agricultural and Management Practices

Public Act 261 of 1999 (SB 205)

## Introduction

A February public policy analysis paper<sup>1</sup> explained the changes to the Right to Farm Act brought about by PA 261 of 1999 and discussed some of the policy questions related to the legislation. The analysis concluded that the new amendments left many unanswered questions that could only be addressed through judicial interpretation and through the publication of the new generally accepted agricultural and management practices required of the Michigan Commission of Agriculture (MCA). On June 1, MCA fulfilled its obligation under the new law and brought at least a measure of clarity to the operation of Michigan's Right to Farm Act (RTFA). This paper explains the Commission's new Generally Accepted Agricultural and Management Practices (GAAMPs) for Site Selection and Odor Control for New and

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*Former Governor  
William G. Milliken*

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<sup>1</sup> Excerpts from the paper appeared in the January 2000 issue of *Planning and Zoning News*. Copies are also available on the web at <http://www.msue.msu.edu/msue/aoe/landuse/landresource.html> or by contacting your local County Extension office.

Expanding Livestock Production Facilities and discusses some of the policy questions that arise from the adoption of these standards.

## Background

Prior to the passage of PA 261, the Right to Farm Act ensured that farmers following GAAMPs were immune from nuisance suits; however, they were not immune from citations for violations of local ordinances if the standards set out in the ordinance differed from those set out in the GAAMPs. A major thrust of PA 261 was to set a uniform standard throughout the state for assessing responsible agricultural management practices. PA 261 provided that “a local unit of government shall not enact, maintain, or enforce an ordinance, regulation, or resolution that conflicts in any manner with [the Right to Farm Act] or generally accepted agricultural and management practices developed under [the Right to Farm Act].”

The only GAAMPs in existence at the time PA 261 was enacted addressed manure management and utilization, pesticide utilization and pest control, nutrient utilization, care of farm animals and cranberry production. Recognizing that this random collection of management policies would not adequately address local air and water quality concerns, or create the desired uniform standards controlling individual livestock operations, the legislature directed MCA to adopt GAAMPs addressing site selection and odor control at new and expanding livestock production facilities. Working through an advisory committee comprised of officials from the Michigan Department of Agriculture (MDA) and Department of Environmental Quality (DEQ), agriculture industry representatives, Michigan State University agriculture scientists, and township and county officials, MCA met its June 1 deadline and adopted GAAMPs “to provide uniform, statewide standards and acceptable management practices based on sound science.”<sup>2</sup>

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<sup>2</sup> These new GAAMPs can be found at <http://www.mda.state.mi.us/right2farm/SiteSelection/index.html> or by contacting the Michigan Department of Agriculture.

## The “How” and “Where” of the New GAAMPs

Other than the directive itself, PA 261 gave MCA little guidance for establishing a framework of management practices that will address multiple social, environmental and economic considerations, while at the same time balancing state and local control over land use decisions. Broadly speaking, the new GAAMPs attempt to meet these considerations in two ways: first, by establishing guidelines for *how* a livestock operation should be managed, and second, by setting forth criteria for determining *where* an operation can locate or expand. The *how* of the new GAAMPs is relatively straightforward and will be addressed first.

### MDA Review of New or Expanding Livestock Operations

The GAAMPs for site selection and odor control apply to all new and expanding livestock production facilities with a capacity of 50 or greater animal units.<sup>3</sup> In order to achieve protection from nuisance suits, a producer proposing a new or expanded operation of this size must develop a *site plan* and a *manure management system plan*. The location and size (in terms of animal units) of the operation dictate whether the producer is required to further proceed through the “site review and verification process” with MDA (the specific location and size thresholds will be discussed in the next section). If the operation reaches these threshold levels, the producer initiates the review process by submitting the plans to MDA, accompanied by a letter outlining the proposed project, any areas of concern the producer may have relative to the operation, the agencies and individuals the producer is working with, and the proposed project timeline. If the

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<sup>3</sup> Animal units are defined as listed in the U.S. Code of Federal Regulations: 40 CFR 122. Specific numbers are provided in the GAAMPs.

operation will implement special technologies or management practices, a description must be included in this package.

The site verification and review process is the mechanism by which MDA reviews how a livestock operation will be managed. Mandatory review of site plans and manure management system plans marks a change from prior practice. Prior to the adoption of the new GAAMPs, producers were not required to submit a manure management system plan to receive nuisance suit protection unless specifically requested to do so by MDA, usually in response to a complaint about the operation. The new GAAMPs outline the steps of the review process, which include a preliminary site visit by MDA officials, notification to local units of government of all siting requests and determinations made by MDA regarding approval, and an appeal process if either the producer or surrounding neighbors are dissatisfied with MDA's determination.

It is worth noting at this point that the language contained in the GAAMPs requires that local units of government be "notified of all siting requests." Recall that producers are not required to apply for MDA verification unless their operations meet specified size and location thresholds. The GAAMPs allow other producers to submit their plans for review and verification, but if this language in the GAAMPs is strictly interpreted these producers will presumably fall under the notice requirements of the process. It is also worth noting that, while neighbors within one mile may appeal MDA's final decision to the MCA, the GAAMPs themselves provide no specific mechanisms for notifying anyone other than the local unit of government that a siting request has been submitted or that a decision has, in fact, been made.

The new GAAMPs rely on the existing Manure Management and Utilization GAAMPs for the substantive standards by which proposed operations will be judged. MDA will review the manure management system plan to determine how the operation addresses those standards, using the

following components:

- Whether the operation has sufficient land, or access to sufficient land, for the proper collection, storage, treatment, transfer and utilization of the manure and other by-products generated.
- Whether the polluted runoff and leachate from manure and feed is collected and transferred to storage or treatment facilities and utilized in an environmentally acceptable manner.
- The planning and installation of manure management system components to ensure proper function of the entire system.
- A written operation and maintenance plan for all structural components of the manure management system including inspection frequency, areas to address, regular maintenance and record keeping.
- An assessment of potential odor generation and the technologies and management practices to be implemented to minimize excessive odors.
- Through development of an Emergency Action Plan, an identification of the actions to take and contacts to be made in the event of a spill or discharge.

Other items that may accompany the manure management system plan include a *veterinary waste management plan* identifying the processes and procedures used to safely dispose of livestock-related veterinary wastes produced on the farm; a *conservation plan* describing the structural, vegetative and management measures for the fields where manure and other by-products will be applied; and a *dead animal disposal plan* identifying the processes and procedures used to safely dispose of the bodies of dead animals in compliance with PA 239 of 1994.

The site plan allows each proposed operation to be assessed individually for the appropriateness of its location relative to natural and man-made features, and distances to other human activities. The site

plan will include base maps to scale illustrating the following features:

- Property lines, easements, rights-of-way, and any deed restrictions.
- Public utilities, overhead power lines, cables, pipelines, legally established public drains.
- Positions of buildings, wells, septic systems, culverts, drains and waterways, walls, fences, roads, and other paved areas.
- Location, type and size of existing utilities.
- Location of wetlands, streams and other bodies of water.
- Existing land uses for contiguous land.
- Names and addresses of adjacent property owners.
- A soils map of the area where all livestock production facilities are to be located.
- Wind rose (indicates prevailing wind direction) from the nearest weather service office.
- Distance and direction to the non-farm residences within 1 mile.
- Distance and direction to the nearest residentially zoned area.

## Where New and Expanding Livestock Production Facilities Can Be Located

Preparation of a site plan for a proposed new or expanding livestock production facility requires understanding of how the new GAAMPs address the suitability of proposed sites. In general, the new GAAMPs leave with the local unit of government the decision of where, within its jurisdiction, livestock production facilities will be located. More specifically, townships and counties are still able to establish agriculture zones and determine the location of those zones. However, the GAAMPs restrict, to a degree, the location of individual facilities within those zones. Because of the restrictions in the GAAMPs, and because localities cannot adopt restrictions on management practices, local *planning* for agricultural land uses is more important than ever. Whether agriculture zones are identified as such

because of the predominant land uses in the area or because of a natural resource base that makes agriculture the logical land use choice, setting aside areas for agriculture (as distinct from residential or other developed uses) is critical.

The GAAMPs establish that new and expanding livestock production facilities should only be constructed in areas where local zoning allows for agriculture uses. Within agriculture zones, then, all potential sites for a new or expanding livestock production facility lie within one of three categories. These three categories differ by the types of surrounding land uses and the natural resource base that characterizes the site. Whether an individual facility can be constructed or expanded depends upon the category within which the proposed site falls **and**, for facilities of a certain size, the outcome of MDA review of the site plan and manure management system plan developed for the proposed facility. In this way, the GAAMPs largely determine *where*, within an agriculture zone, an individual facility may be constructed or expanded.

Category 1 sites are those that are normally acceptable for livestock production facilities. A category 1 site exists where 3 or fewer residences not affiliated with the proposed livestock production facility are located

- within ¼ mile for operations with fewer than 1000 animal units
- within ½ mile for operations with 1000 or more animal units.

While all category 1 sites require preparation of a site plan and manure management system plan, only those facilities with 1000 animal units or more are required to obtain MDA review and verification of these plans. As indicated in table 1, minimum property line setbacks are provided for all sites in category 1. These setbacks indicate the minimum distance between a new or expanding facility and the property boundary of that facility. Notification of local unit of government refers to the local unit with

zoning authority over the site.

Category 2 sites are those where special technologies and/or management practices would be needed to make new and expanding livestock production facilities acceptable. A category 2 site exists where 4-20 residences not affiliated with the

proposed livestock production facility are located

- within ¼ mile for operations with fewer than 1000 animal units
- within ½ mile for operations with 1000 or more animal units.

Table 1.  
Category 1 Site Setbacks, Verification and Notification

Animal Units	Non-Farm Residences within Distance	Minimum Property Line Setback <sup>4</sup>	MDA Verification	Local Unit of Government Notification
50-999	0-3 within ¼ mile	250 ft	Upon Producer Request	Upon Local Unit Request
1000 or +	0-3 within ½ mile	600 ft	Yes	Yes

Again, all category 2 sites require preparation of a site plan and manure management system plan. However, only those facilities with 250 animal units or more are required to obtain MDA review and

verification of these plans. As is the case for category 1 sites, minimum property line setbacks are provided for all sites in category 2.

Table 2.  
Category 2 Site Setbacks, Verification and Notification

Animal Units	Non-Farm Residences within Distance	Minimum Property Line Setback <sup>5</sup>	MDA Verification	Local Unit of Government Notification
50-249	4-20 within ¼ mile	250 ft	Upon Producer Request	Upon Local Unit Request
250-499	4-20 within ¼ mile	300 ft	Yes	Yes
500-749	4-20 within ¼ mile	400 ft	Yes	Yes
750-999	4-20 within ¼ mile	500 ft	Yes	Yes
1000 or +	4-20 within ½ mile	600 ft	Yes	Yes

Category 3 sites are those that, with a few exceptions, are not acceptable for new and

expanding livestock production facilities. A category 3 site exists where more than 20 residences are

<sup>4</sup> Setback distance may be modified with the use of the MNOSE model, utilizing the 95% odor annoyance free requirement, based upon proximity to existing non-farm residences and management technologies implemented at the livestock production facility. The MNOSE model is described beginning on page 7.

<sup>5</sup> Setback distance may be modified with the use of the MNOSE model, utilizing the 95% odor annoyance free requirement, based upon proximity to existing non-farm residences and management technologies implemented at the livestock production facility. The MNOSE model is described beginning on page 7.

located within ¼ mile. In addition, several other neighboring land uses or natural resource features characterize a category 3 site, and a site that might otherwise fall into category 1 or 2 becomes a category 3 site as a result of these characteristics.

- New and expanding livestock production facilities and manure storage facilities shall not be constructed within a wetland.
- New and expanding livestock production facilities and manure storage facilities shall not be constructed in an area where they would be inundated with surface water during a 25-year flood.
- New livestock production facilities and manure storage facilities shall not be constructed within a 10 year time-of-travel zone designated as a wellhead protection area. An expanding livestock production facility may be constructed with review and approval by the local unit of government administering the wellhead protection program.
- Where no designated wellhead protection program exists, new and expanding livestock production facilities shall not be closer than 2000 feet to a Type I or Type IIa public water supply well, shall not be closer than 800 feet to a Type IIb or Type III public water supply well, and shall not be closer than 75 feet to private domestic water supply well.
- New and expanding livestock production facilities and manure storage facilities shall not be constructed within the 100 year flood plain of a stream reach where a community surface water source is located, unless the facility is located downstream of the surface water intake.
- New livestock production facilities and manure storage facilities should not be constructed within 1500 feet of high public use areas<sup>6</sup>. Existing

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<sup>6</sup> High public use areas include hospitals, churches, licensed commercial elder care facilities, licensed commercial child care facilities, school building, parks and

livestock production facilities may be expanded within 1500 feet of high public use areas with appropriate MDA review and verification, including input from the local unit of government and from the high public use areas within the 1500 foot setback.

- New livestock production facilities and manure storage facilities shall not be constructed within 1500 feet of areas zoned for residential use where agriculture uses are excluded. Existing livestock production facilities and manure storage facilities may be expanded within 1500 feet of areas zoned for residential use with approval from the local unit of government.

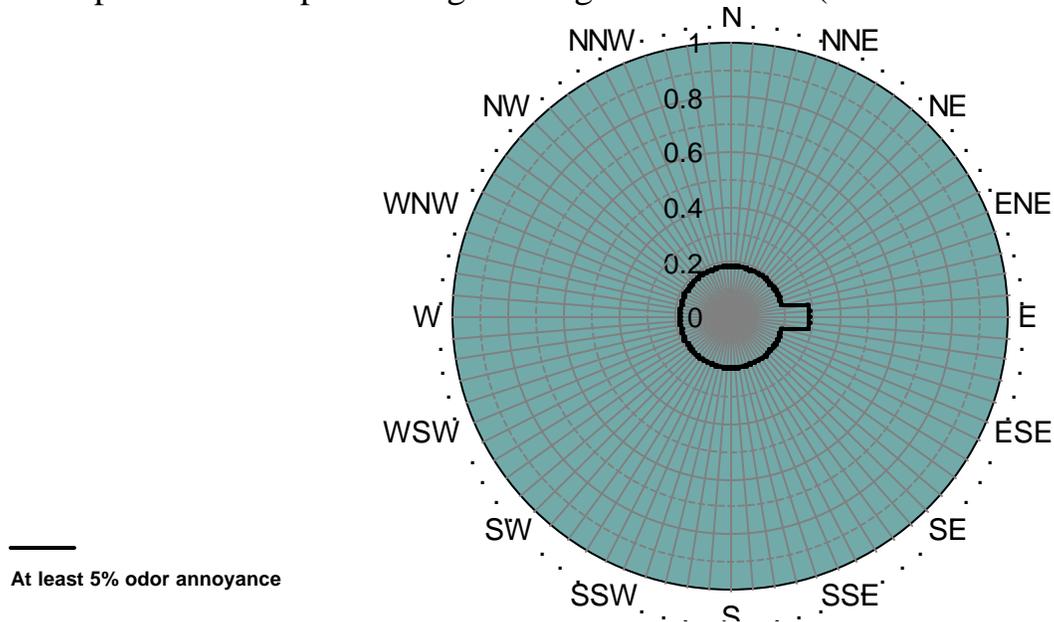
For category 1 and category 2 sites where MDA review and verification are required, the Minnesota Odor Setback Estimator (MNOSE) model will be used in evaluating whether the site is appropriate for the proposed facility construction or expansion. The MNOSE model uses data on type of animal housing, type of manure storage facility, size (ground area) of facility, and type of odor control technology, combined with data on prevailing wind speed and direction, to establish an “odor footprint” for any proposed site and facility. The GAAMPs specify that the proposed facility cannot generate odors that would annoy<sup>7</sup> the nearest neighbor any more than 5 percent of the time (equivalent to 36 hours per month). Thus, the odor footprint of concern would be that land area over which odors from the facility would annoy neighbors at least 5 percent of the time (or, conversely, that area which could not be assured to be annoyance free at least 95% of the time). Figure 1 provides an example of an odor footprint using Lansing weather data. For the hypothetical

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campgrounds.

<sup>7</sup> The MNOSE model quantifies odor intensity on a scale of 0 to 5 (0 being no odor and 5 being a very strong odor). An odor is considered an annoyance if it rates 3 or higher on the scale.

Figure 1. Sample Odor Footprint Using Lansing Weather Data (distance in miles).



facility and site considered for this modeled example, the site at the center of the circle would not be acceptable for the proposed facility, technology and management if a residence (not affiliated with the livestock facility) is located within the 5% footprint area. That area covers a distance of 0.19 miles in all directions, except for due east where the footprint extends to 0.28 miles.

## Policy Questions

Local governments and livestock producers are asking a number of questions. Some of the questions arise because of vagueness within the GAAMPs themselves. Other questions address issues that have not been addressed within the GAAMPs. Some of the more common policy questions are reviewed below.

Can local governments adopt ordinances to address areas not specifically addressed by GAAMPs?

The answer to this question appears to be yes. PA 261 prohibits local regulations that "extend, revise or conflict with the Right to Farm Act or the new GAAMPs." However, if local officials wish to

adopt an ordinance that addresses standards unrelated to those addressed by the GAAMPs, they are not prohibited from doing so. If, for example, a local jurisdiction seeks to protect surface water resources by establishing setbacks for structures from all lakes and streams (not just those serving as public drinking water sources), it should be within its rights to do so because GAAMPs do not address the issue. The alternative interpretation, that the *only* controls allowable on livestock facilities are the GAAMPs, misses the central policy focus of the Right to Farm Act – that the RTFA and GAAMPs provide protection from nuisance suits, not the last word on regulating livestock production facilities.

What do the minimum property line setbacks mean?

In fact, the minimum property line setbacks provided in the GAAMPs are of little substance. While they may provide some initial guidance to producers considering construction or expansion of a livestock facility, actual separation distances necessary for *nuisance-free* siting will be determined by application of the MNOSE model. For example, even if a producer can satisfy the minimum property

line setback (say, 600 feet for a 1000 animal unit facility), the location of a home or business on an adjacent property could make siting a facility problematic.

Application of the MNOSE model could, for a large operation and typical manure management and odor control technologies, require a separation of as much as ½ mile between the facility and the neighboring home or business. The reverse is also true, however. While the GAAMPs specify a 600 foot property line setback, innovation on the part of the livestock producer could reduce that 600 foot requirement. For example, a particularly effective odor control technology could potentially enable construction or expansion of a livestock production facility on a site that does not satisfy the minimum property line setback.

During the public comment period for the draft of the GAAMPs, considerable debate over the appropriate setback distances made it clear that agreement between the opposing points of view on this issue is unlikely. Use of the MNOSE model is an attempt to interject an objective, scientific approach into the debate. While the GAAMPs prevent local units from requiring specific separation distances between livestock production facilities and other land uses, local government can play an important role in understanding how the MNOSE model is used in MDA decisions.

### Is multi-tier agricultural zoning an option for local governments?

The answer is not clear. The GAAMPs provide that livestock production facilities “should only be constructed in areas where local zoning allows for agricultural uses.” However, some local ordinances distinguish between general agriculture zones (allowing livestock operations) and “crop-only” zones. One plausible interpretation is that crop-only zones conflict with the new GAAMPs since the GAAMPs address the circumstances under which livestock operations may be permitted. Another

interpretation is that the local ordinance defines what an “agriculture zone” is and may exclude certain types of agriculture activities in inappropriate locations.

Irrespective of these differing interpretations, it is likely that these distinctions will be moot in a great many individual cases. If the basis of the crop-only zone is the presence of non-agricultural uses, the application of the MNOSE model makes it unlikely that many livestock production facilities attempting to locate in areas with large numbers of non-agricultural land uses will meet the 95 percent odor annoyance-free requirement, thereby losing protection from nuisance suits. If the crop-only zone is based on environmental considerations, such as vulnerable water tables or proximity to surface water, the GAAMPs address many of those concerns, as well. It is important for local officials to recall that they may adopt more stringent controls than those found in GAAMPs if such controls are based on scientific evidence and justified due to a risk to public health or the environment.

A related question is whether a jurisdiction can completely eliminate livestock operations from their communities through rural residential zones that prohibit all agricultural uses. Since the threshold question for siting livestock facilities under the GAAMPs is whether the location is zoned for agricultural uses, it would appear that local officials do, in fact, have the power to make that initial determination. The larger question, however, is whether this would be good land use policy for most rural communities to follow or whether, in many communities, this would be throwing out the baby with the bath. In addition, such an approach would likely raise the constitutional question of exclusionary zoning.

### Can local governments limit the size of livestock production facilities (animal units)?

The answer appears to be no. This question is

related to the previous question; however, it would be logical to conclude that, once a local jurisdiction has decided to allow livestock production facilities in a particular zone, then GAAMPs “preempt the field” in terms of managing such operations.

### Can local governments adopt GAAMPs as part of a local ordinance?

The answer appears to be yes. A local ordinance that requires all new and expanding livestock production facilities to comply with GAAMPs does not force producers to comply with standards that differ or conflict with the standards contained in the GAAMPs. Neither would such an ordinance “extend or revise” the Right to Farm Act, because it would not extend protection from nuisance suits to any producers that would not otherwise qualify for such protection. In effect, it brings all producers under a uniform standard for operation management and location, whether or not they desire protection from nuisance suits.

Adopting GAAMPs as part of a local ordinance could take one of two forms. A local government could adopt the GAAMPs standards themselves, thereby creating in the local government the burdensome responsibility of monitoring operations and enforcing its ordinance. This would include reviewing site plans and manure management system plans, enforcing setbacks, and understanding and applying the MNOSE model. This approach raises questions over the legal consequences of conflicting outcomes (if, for example, MDA were to verify plans that the local unit of government judged to be inadequate, or vice versa) or applying the standards to small producers that are not covered by

GAAMPs. The other approach is to require proof of compliance with all MDA requirements as a condition for approval of a special use permit.

## Conclusions and Implications

The principle implication of the adoption of the new Generally Accepted Agricultural and Management Practices for Site Selection and Odor Control for New and Expanding Livestock Production Facilities is that local governments have not lost all ability to plan and zone for agricultural land uses. In fact, land use planning at the local level is more important than ever. While the new GAAMPs determine, to a large degree, how a livestock production facility may be situated on the landscape and how that operation is to be managed to control odor, the more general task of planning for where, within its jurisdiction, agriculture is to occur remains the responsibility of the local government.

There are still unanswered questions about how GAAMPs impact local land use policy. This analysis reviews a few of the more common questions, but others will continue to arise. These questions are likely to be addressed in one of three ways. First, all GAAMPs are reviewed annually and are subject to revision. Areas of confusion or problems may be remedied by this review process. Second, some questions related to the passage of PA 261, and the GAAMPs required by statute, may be answered by additional legislation. Finally, PA 261 and associated GAAMPs may face legal challenges, the determinations of which will provide answers to questions of legality and constitutionality.