
Introduction

This report focuses on the environmental regulation of feedlots.

In recent years, there has been growing controversy over the economic and environmental impacts of the livestock industry in Minnesota. Similar to trends in other states, Minnesota's livestock industry has seen a growth in the number of large feedlots and an increasing tendency for feedlot owners to live offsite. The number of farms with dairy cows has fallen 43 percent since 1988, and the number with hogs has declined 35 percent. Meanwhile, an increasing share of permits issued by the Minnesota Pollution Control Agency (MPCA) has been for larger feedlots, particularly swine facilities. In 1990, 4 percent of the permits issued to swine feedlots were for facilities with 1,000 or more animal units, or the equivalent of 2,500 or more hogs in excess of 55 pounds each.¹ By 1997, the share of swine permits issued to large facilities had grown to 32 percent.

As a result of these trends, Minnesota citizens have been voicing increasing environmental and economic concerns about feedlots. In response to these concerns, the 1998 Legislature approved the preparation of a generic environmental impact statement (GEIS) by the Environmental Quality Board. The GEIS is expected to examine the "long-term effects of the livestock industry as it exists and as it is changing on the economy, environment, and way of life of Minnesota and its citizens."²

Because the GEIS is expected to take two or more years to complete, the Legislative Audit Commission directed our office to conduct a shorter and more focused study of feedlots. Our study focuses on the adequacy of the environmental regulation of feedlots by MPCA and the counties that have chosen to participate in the feedlot regulation program. Our evaluation addressed the following questions:

- **Does MPCA review permit applications in a thorough and timely manner? Does MPCA have adequate design standards for the construction of manure storage structures?**

¹ An "animal unit" is a measure that attempts to rate animals based on the volume and nutrient content of the manure they produce. For example, the manure produced by a slaughter steer or heifer is considered to be equal to 1.0 animal unit. The animal unit equivalents for other animals listed in MPCA rules include: mature dairy cow (1.4 animal units), horse (1.0), swine over 55 pounds (0.4), duck (0.2), sheep (0.1), swine under 55 pounds (0.05), turkey (0.018), and chicken (0.01). For an animal not mentioned in MPCA rules, the number of animal units is defined as the animal's average weight divided by 1,000 pounds. See *Minn. Rules*, 7020.0300, subp. 5.

² *Minn. Laws* (1998), ch. 366, sec. 86, subd. 2.

We examined the regulatory efforts of MPCA and participating counties.

- **Does MPCA conduct appropriate inspections of feedlots prior to issuing permits and during construction?**
- **Do MPCA and counties provide adequate oversight of feedlots on an ongoing basis, including taking appropriate actions to ensure that feedlots, when closed, are not pollution hazards?**
- **Does MPCA adequately analyze pollution risks for large feedlots that require preparation of an environmental assessment worksheet (EAW)?**
- **Does MPCA adequately respond to complaints about feedlot pollution and adequately enforce existing laws, rules, and permit conditions?**
- **How much do counties vary in their regulatory practices? What are some of the strengths and weaknesses of county feedlot programs? How could MPCA or the Legislature provide better oversight or incentives to counties to encourage development of good regulatory programs?**
- **What are the deficiencies in MPCA's current administrative rules regulating feedlots and will MPCA's proposed rules adequately address the problems with existing rules?**
- **Do MPCA and the counties have adequate resources to operate feedlot regulatory programs? If additional resources became available, where should they be targeted?**

In conducting this study, we interviewed MPCA management and staff, county regulatory staff, other state and local agency staff, livestock producers, environmental groups, concerned citizens, and other state and national experts. We reviewed MPCA permit, enforcement, and environmental review files in detail. We surveyed county regulatory officials and personally visited with some of them. We also reviewed existing reports and literature on feedlot pollution and regulation and examined information on the regulatory activities of other states. Finally, we visited feedlots in rural Minnesota to see firsthand the steps being taken to address water and air pollution concerns.

Chapter 1 of this report provides background information on the livestock industry in Minnesota and its potential impact on the environment. It also examines the role of MPCA and counties in regulating feedlots. Chapter 2 presents our findings on the adequacy of the regulatory efforts of MPCA and counties. Chapter 3 discusses our recommendations for improving feedlot regulation in Minnesota.