

Feedlot Financial Needs Assessment Report

February 1, 2001



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Electronic copies of this report is available at <http://www.mda.state.mn.us/feedlots/>



Cost of Preparing Report

This information is provided pursuant to Minnesota Statutes 3.197

Estimated Labor Cost:	\$28,200
Printing and Other Costs:	\$2,380
Total Costs:	\$30,580

I. EXECUTIVE SUMMARY

The purpose of this study, fulfilling the requirements of MN Session Law 2000 Ch. 435, Sec. 11, is to estimate the need for state financial assistance in accordance with state rule chapter 7020 and MN statutes section 116.07, subdivision 7, paragraph (p).

Estimates of total feedlot operations, noncompliance rates, farm decline rates and other parameters were made using currently available data and a survey of County Feedlot Officers and Soil and Water Conservation District Managers:

- 38,468 farm operations with livestock in Minnesota in 1997
(1997 US Census of Agriculture special tabulation)
- 24,300 would be required to register under the 7020 rules
(US Census of Agriculture special tabulation and staff estimates of facilities within shoreland areas)
- 18,000 are projected to remain in business in 2010
(1997 US Census of Agriculture special tabulation and change in farm numbers reported in Minnesota Agricultural Statistics 2000)
- 7,100 of the remaining feedlots would require upgrades
(Survey of county feedlot officers and SWCD managers)
- 3,200 feedlots would come into compliance with minor corrections costing less than \$3,000 on average
(Survey of county feedlot officers and SWCD managers)
- 3,900 feedlots would come into compliance with major upgrades costing about \$40,000 on average
(Survey of county feedlot officers and SWCD managers, Ag BMP Loan Program, and state and federal cost-share data)

The feedlot inventory data collected for this study is based on the best information presently available. Future MPCA registration efforts should yield more accurate feedlot data including number of feedlots, locations and size of operation. This report should be revised as additional data is collected through the registration process.

The total estimated cost for physical construction of structural practices required to meet the 7020 rule is approximately \$165 million, Table 1. About \$163 million would be cost-share eligible. Providing 75% cost-share to all eligible practices would cost about \$122 million during the ten-year period. This is \$73 million over the current funding level for state and federal cost share programs in Minnesota, assuming stable funding for the next 10 years.

Table 1. Cost for construction of basins and runoff control practices for compliance with state rule 7020 by size of operation.

	10-49 AU	50-99 AU	100-299 AU	300-499 AU	500-999 AU	>1000 AU	TOTAL
Percentage of total cost by size of operation	9%	33%	41%	11%	5%	1%	
Cost	\$15,920,000	\$54,910,000	\$67,210,000	\$17,730,000	\$7,760,000	\$1,470,000	\$165,000,000

The 7020 rule has other requirements and associated costs that are not included in the construction costs, but would incur additional costs to feedlot operators. Other expenses that are discussed in this report include engineering assistance to design projects required by the rules, preparation and periodic updating of manure management plans to insure the appropriate use of the manure, and equipment to handle, transport and apply the manure. Other costs such as expenses related to permit application and environmental review, compliance to air quality emission standards, and feedlot closure were not addressed in this report.

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III. INTRODUCTION

A. Purpose

The Commissioner of Agriculture is required to study the need for state financial assistance to operators of all feedlots less than 1,000 AU in size that are required to upgrade their facilities under the feedlot rules 7020. The following are excerpts from the legislation.

- **Session Law 2000 Ch. 435, Sec. 11. [FEEDLOT UPGRADES; REPORT, FINANCIAL ASSISTANCE.]**

(a) The Commissioner of Agriculture, in close collaboration with the Commissioner of the Pollution Control Agency and in consultation with the Commissioner of Finance and a representative of the Board of Water and Soil Resources, shall study the need for state financial assistance by operators of feedlots with a capacity of less than 1,000 animal units required to upgrade facilities under proposed livestock feedlot rules published in the State Register, volume 24, number 25.

(b) The study must identify the specific financial needs of operators of feedlots with capacities:

1. Less than 100 animal units;
2. More than 100 but less than 300 animal units; and
3. More than 300 but less than 500 animal units.

(c) Not later than February 1, 2001, the Commissioner of Agriculture shall report the findings of the study to the standing committees of the Senate and House of Representatives with jurisdiction over agriculture and environment policy issues and budgeting. The report must include recommendations to the legislature on anticipated state costs to provide matching funds for feedlot upgrades under Minnesota Statutes, section 116.07, subdivision 7, paragraph (p).

- **Minnesota Statutes, section 116.07, subdivision 7, paragraph (p)**

(p) Unless the upgrade is needed to correct an immediate public health threat under section 145A.04, subdivision 8, the agency may not require a feedlot operator:

1. To spend more than \$3,000 to upgrade an existing feedlot with less than 300 animal units unless cost-share money is available to the feedlot operator for 75 percent of the cost of the upgrade; or
2. To spend more than \$10,000 to upgrade an existing feedlot with between 300 and 500 animal units, unless cost-share money is available to the feedlot operator for 75 percent of the cost of the upgrade or \$50,000, whichever is less.

B. Background

Historically in Minnesota, many livestock facilities were located near natural water bodies. This provided livestock owners and operators with a ready source of drinking water for the animals. In the 1960's and 1970's the potential for negative impacts from these livestock operations on the state's water resources became apparent. In the early 70's, the Minnesota Legislature passed legislation and provided limited funding in an effort for the Minnesota Pollution Control Agency (MPCA) to address pollution from livestock facilities.

In the 1980's and 1990's, larger livestock facilities were being built in Minnesota to raise livestock in a more cost efficient manner. These larger facilities sparked increased public interest in the pollution potential issues surrounding livestock production. More MPCA staff were dedicated to minimizing the pollution surrounding livestock production. This new effort led

to increased scrutiny of livestock operations, and more diligent implementation of the existing feedlot rules.

In the late 90's the MPCA recognized that the feedlot rules should be amended to better address the larger livestock facilities that were being operated as well as simplifying the process for the existing facilities that had not yet complied with the existing rules.

The livestock industry in Minnesota generates over \$9 billion a year in economic activity and employs 153,000 people in production, processing and supply services. The revised rules were developed with a close eye on the economic impact that they would have on Minnesota's agricultural economy.

The costs to implement environmental corrections as required under the 7020 rules do not typically increase the production level or revenue to the farmer. However, the feedlot operator takes on the additional debt load and an obligation for construction, operation and maintenance of the improvements without a corresponding increase in income from these improvements. They are required to implement these practices to stay in business. Therefore, in order for the public to achieve the environmental objectives and society to maintain the agricultural industry based on family farms, the feedlot improvements that provide environmental benefits are subsidized with public funds through grants and low interest loans. Despite the grant subsidy, the feedlot operator has historically provided about 50% of the upgrade cost from loans that must be repaid and other financial resources. As a result, many farms must expand their operations at the time of the improvements simply to generate additional revenue to repay their share of the cost of the improvements. The cost of the expanded capacity is not eligible for state or federal financial assistance.

The legislature passed language during the 2000 session that limited the corrective actions the MPCA could require by permit or enforcement action, unless a 75% cost-share grant was available for the correction.

This financial needs assessment is being done to estimate the cost of bringing all feedlots into compliance with the current rules and statutes and to estimate the amount of state funding potentially needed. The following financial needs assessment estimates the total cost and amount of additional financial assistance funding that would be necessary to correct existing pollution problems at facilities that will remain in business for more than 10 years.

The amounts presented are considered to be estimates based on the best data currently available. Following the completion of the feedlot registration requirements, January 2002, these estimates should be re-examined.

C. "Upgrade" Definition

For the purposes of this report the term "upgrade" describes cost-share eligible structural improvements made at a facility. Other elements may also be required by the rules but are not cost-share eligible or not typically funded by the cost-share grant program. These include engineering assistance, development of manure management plans, manure handling and application equipment, permit application and environmental review, odor control plans, and feedlot closure. Cost estimates for most of these other elements are developed and discussed in this report; however, various options for state financial assistance are presented only for the cost-share eligible components of the potential "upgrade" costs.

IV. SUMMARY OF DATA COLLECTED

A. Data Sources and Quality

The data used in this study comes from a multitude of sources and was collected for purposes other than this report. Therefore, much of the data was incomplete (e.g. data was not available for all counties) and incompatible (e.g. data was reported in head of livestock when animal units were needed) and had to be adjusted or converted to be useable in this report. Past efforts to estimate noncompliance with 7020 rules have been based more on professional judgment than on the available data. This is the first comprehensive effort to gather evaluations of compliance from local staff. In many cases information has been derived by surveys of local feedlot officers, asking them for their best knowledge or judgment. In other cases, counties provided more precise information from local feedlot inventories. To overcome these difficulties, we have attempted to include as much data as possible, averaging values on a statewide basis to reduce the effect of aberrant data and then rounding the numbers to only a few significant digits. Although these estimates have been developed using the best available data at this time, it is acknowledged that there are deficiencies in the data's reliability and validity.

The data used in this report is from:

1997 US Census of Agriculture, National Agricultural Statistics Service, USDA

- Total farm numbers
- Change in farm numbers
- Farm size and species raised

2000 and 1999 Minnesota Agricultural Statistics Report, MDA

- Change in farm numbers
- Total livestock population and proportions

Agricultural Best Management Loan Program, MDA

- Cost of practices
- Costs by size and species produced

Local Area Reporting System, BWSR

- Cost of practices
- Engineering costs
- Funding sources for practices

County Level 2 and Level 3 Inventories

- Distribution of non-compliant operations by facility size and species produced

This report provides estimates of costs given the information available at this time. It is expected that the registration process under the rules will provide more accurate data in the future, including farm numbers, production capacity and species raised. Therefore, this report should be updated periodically as more reliable and accurate data becomes available.

B. Total Feedlot Numbers

The feedlot rules establish a registration process (7020.0350) that will accurately tally all feedlots in the state. This registration will not be completed until January 1, 2002. Therefore, other sources of information were used to estimate the total population of feedlot operations.

County and MPCA feedlot permit and certification of compliance records are incomplete on a statewide basis. This data shows the maximum permitted production level for each facility, but it does not reflect the actual size of operation, whether the site has been abandoned, is currently

idle or in full production. With the delegation of some permitting and other feedlot rule responsibilities to many counties, standardized data collection and reporting has not yet been established.

At the time of this report, there were 32 counties that had completed a Level 2 or Level 3 feedlot inventory. The information provided in these inventories is not consistent from county to county, primarily due to each county's unique data collection and storage methodologies. Other differences included the local government's interpretation of the feedlot definition, whether the maximum permitted number or the livestock inventory at time of inspection was reported, whether abandoned or idled facilities were included and whether the site was evaluated for potential environmental problems. Extrapolation from this geographically limited, inconsistent database to all other counties for feedlot numbers was not reasonable, given county variations in farming practices and production.

There were also some specialized data sources, such as for dairy farms under the Department of Agriculture's inspection program, or the Board of Animal Health's testing for pseudorabies. However, these sources also provided too narrow of scope to allow extrapolation of feedlot numbers to the state as a whole.

Therefore, the 1997 US Census of Agriculture was used to estimate the total number of feedlots in the state, as of December 31, 1996. This database is based on a mail survey that had an 80% response from all operations with more than \$1,000 in farm related income and at least one head of the reported livestock species. This census data, collected as of December 31, 1996, was expanded by the USDA to estimate statewide populations. Although US Census of Agriculture reporting is mandatory under federal law, the accuracy of the data is dependant on the responses of the individual farmer and some responses may have been incomplete.

The Minnesota Department of Agriculture and the Office of Strategic and Long Range Planning commissioned a special evaluation of the data to tabulate feedlot numbers by species within the size categories required by statute. Despite the detailed information available through the US Census of Agriculture database, several inconsistencies have been identified. Operations that produce more than one species would appear in this tally more than once, for example, a facility that produced both beef and pork would be reported twice. For the purposes of this report, the collaborating agencies concluded that this double counting was acceptable because most facilities with multiple species have different manure management techniques to manage the waste produced (i.e. an operation with beef and pork production, the beef manure is typically managed by scrape and haul, while the hogs are often produced in confinement buildings with concrete manure pits), the MPCA typically permits separately each species produced, and the cost for facility upgrades will vary by the number and species produced. While the above data characteristics increase the number of facilities, those operations that produce the same species at multiple sites are reported only once. In this case, a farm with two sites would be tallied in the US Census of Agriculture data only once because only one farmer reports the production from both facilities.

Despite the many limitations in this data collection system, there are no other statewide, uniform data available. Therefore, the US Census of Agriculture database is the most reliable to use at the present time.

The US Census of Agriculture data is reported by farmers in units of number or head of animals at the facility as of December 31, 1996. However, the 7020 rules are applied by animal units and the legislature requested this report based on categories measured in animal units. Animal units are a means to standardize production in terms of manure generated so as to provide relative comparison among farms of different sizes and different species. Therefore, the head of animals reported in the US Census of Agriculture needed to be converted to animal units for this report. The Minnesota Agricultural Statistics Report (2000 p. 70) reported the number of animals of each species by general class. The general class reported in the Minnesota Agricultural Statistic report, for example "beef cows", "milk cows" and "calves under 500 pounds", were evaluated in relation to the regulatory animal unit equivalency (7020.0300 subp. (5)), assigning 1 AU to beef cows, 1.4 AU to dairy cows, 0.2 AU to calves under 500 pounds,

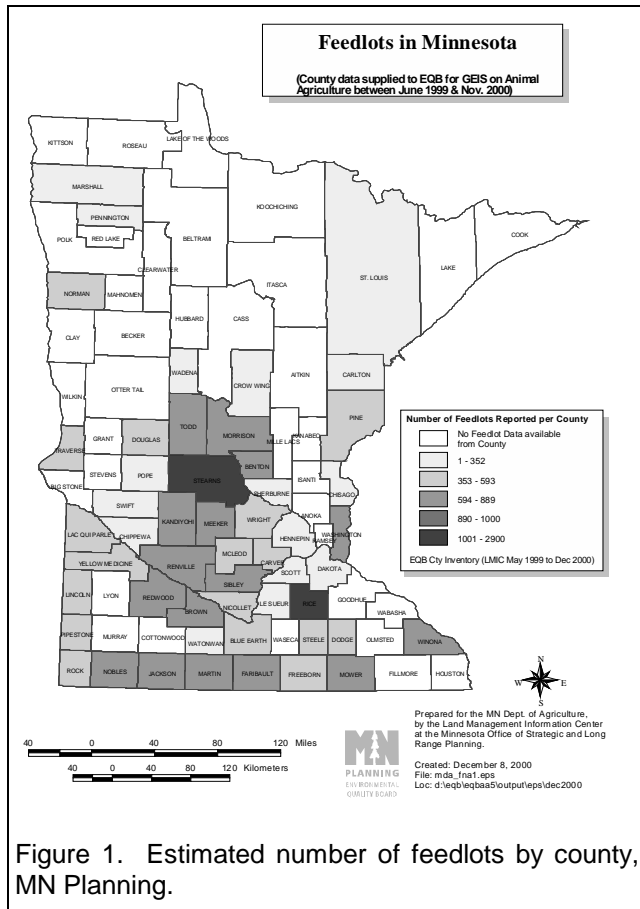


Figure 1. Estimated number of feedlots by county, MN Planning.

and so on for all the reported general classes. The general class was then combined by production type (dairy, beef, pork, etc) and the weighted average animal unit for each production type was calculated based on the statewide population of each general class. These average animal unit conversion factors are shown in Table 2. During the special US Census of Agriculture tabulation, the reported number of head at a facility was multiplied by the average animal unit conversion to determine which feedlot size category would apply to the operation. Through this procedure an estimate by size category of operation and species was generated. Table 3 shows a summary of the special US Census of Agriculture tabulation evaluating hogs, dairy, cattle, poultry and sheep by size of operation and species raised. For the purpose of this report, 38,468 is used as the number of feedlot operations in Minnesota.

Figure 1 shows the estimated number of feedlots in each county.

Table 2. Animal unit conversion factors to convert head of animals in US Census of Agriculture Data to report feedlot size categories.

Species Produced	Factors used to convert US Census of Agriculture number of animals to animal units
Hogs	0.27
Dairy	0.89
Cattle	0.81
Chickens	0.004
Turkey	0.015
Sheep	0.1

1. Data from 7020 rules and 2000 Minnesota Agricultural Statistics Report

Table 3. Total number of operations by size and species produced in Minnesota, including operations with \$1,000 farm related income and at least one animal of the listed species as reported in the 1997 US Census of Agriculture.

Species Produced	<10 AU	10-49 AU	50-99	100-299 AU	300-499 AU	500-999 AU	>1000 AU	TOTAL
	Number of Feedlot Operations by Size and Species							
Hogs	1,466	1,395	1,198	2,148	592	425	288	7,512
Dairy	444	4,005	3,595	1,478	55	24	2	9,603
Cattle	5,122	8,379	1,638	567	25	12	2	15,745
Poultry	2,560	41	47	152	72	51	58	2,981
Sheep	2,155	430	28	11	3	n/a	n/a	2,627
TOTAL	11,747	14,250	6,506	4,356	747	512	350	38,468

1. Data from special tabulation of 1997 US Census of Agriculture.

The data shown in Table 3 summarizes the reported feedlots in the US Census of Agriculture at the end of 1996. Although the accuracy of each number cannot be determined, a few comparisons were made to verify the data. The MDA Dairy Farm Count records for the end of 1996 showed 10,622 inspected dairy farms, a difference of 1,000 farms between the two data sources. By applying the observed change rate for each size category of operation (rate of change is shown in Table 9) for dairy farms from 1996 to 1999 to the US Census of Agriculture total dairy farm number, the predicted number of dairy farms in December 2000 was 8,314, close to the observed MDA Dairy Farm Count, 7,744, Table 4. (The MDA Dairy Farm Count records did not record the standing inventories of dairy farms until 1999; therefore, a same date comparison by size of operation cannot be made between the MDA Dairy Farm Count and the 1997 US Census of Agriculture.)

Compatible Level 2 and Level 3 inventories for 29 counties can be compared to the total number of feedlots reported in the US Census of Agriculture. For these 29 counties, the individual Level 2 and 3 inventories differed from the US Census of Agriculture county data by an average of +/- 50%; however, on a statewide basis the variations balanced each other such that the two sources reported approximately the same number when taken as a whole (a difference of only 1,000 sites among these 29 counties), though the inventories tended to report more sites than reported in the US Census of Agriculture. One possible reason for some of this variation may be that the county feedlot inventory reports the capacity for production, including all feedlots, active and inactive, within the county individually, while the US Census of Agriculture reports the current standing inventory of livestock and the number of feedlots with active production on a particular date, based on individual responding farmers. This suggests that although there are more feedlot sites than reported in the US Census of Agriculture, the sites that are reported probably contain most of the state's livestock inventory, while the production from the unreported sites is probably low.

It is apparent from Table 4, that the baseline data from the 1997 US Census may not be the most accurate or precise for the purposes of this report; however, at the present time, it appears to be the best data available with universal, standardized coverage for the entire state. Therefore, it is used as the basis for most estimates made in this report.

Table 4. Comparison of the 1997 US Census of Agriculture reported dairy farm numbers, estimated December 2000 dairy farm numbers based on 1997 US Census and average annual observed change in farm number rate and the December 2000 MDA Dairy Farm Count Records for dairy feedlots.

Species Produced	<10 AU	10-49 AU	50-99	100-299 AU	300-499 AU	500-999 AU	>1000 AU	TOTAL
	Number of Feedlot Operations by Size and Species							
1997 US Census	444	4,005	3,595	1,478	55	24	2	9,603
2000 PROJECTION based on 1997 US Census	336	3,035	2,724	1,937	191	83	7	8,314
2000 MDA Dairy	60	814	3,885	2,656	204	94	31	7,744

1. Data from 1997 US Census of Agriculture and Minnesota Department of Agriculture Dairy and Food Inspection Section.

C. Feedlots under 7020 Rules

Although the US Census of Agriculture data reports all facilities meeting the \$1,000 income threshold with at least one head of the indicated species, not all facilities fall under the 7020 rule requirements. Under the feedlot rules, facilities less than 10 AU are not required to register. As shown in Table 3, 11,747 are excluded in the <10 animal unit category. In addition, facilities with less than 50 animal units and that are outside of shoreland and other sensitive areas are also excluded from the registration process. Although there is no accurate information that has measured this criterion, the Feedlot Financial Needs Workgroup estimated this parameter through information reported by MDA, MPCA and BWSR staff from various communications with county officials. Table 5 shows the estimated percentage of farms with between 10 and 49 animal units by species that are within shoreland areas, which accounts for approximately 40% of all facilities between 10 and 49 animal units. Shoreland areas include sites within 300 feet from rivers, streams, and delineated flood plains and sites within 1,000 feet of the high water mark of lakes, ponds and flowages (103F.205).

Table 5. Estimated percentage of feedlots with 10 to 49 animal units that are located within shoreland areas.

Species Produced	Percentage of 10-49 AU Feedlots in Shoreland Areas	Number of 10-49 AU Feedlots in Shoreland Areas
Hogs	40%	558
Dairy	90%	3,604
Cattle	90%	7,541
Poultry	25%	10
Sheep	25%	107

1. Typical value estimated by MDA, MPCA and BWSR staff and from various communications with county officials.

By applying the above percentage to the facilities listed under the 10-49 animal unit size category shown in Table 3 and excluding all facilities less than 10 animal units, approximately 24,300 feedlots from all size categories would currently fall under the rule, Table 6.

Table 6. Estimated current number of feedlots that would be required to register under 7020 rule.

Species Produced	Number of Feedlots under 7020 rule.
Hogs	5,210
Dairy	8,760
Cattle	9,790
Poultry	390
Sheep	150
TOTAL	24,300

1. Calculated from Table 3, Table 5, and 7020 rule requirements.
2. Numbers shown are rounded.

D. Estimated Number in Non-compliance to State Rule 7020

The number of feedlots that do not comply with the rules has not been accurately documented in the past. Some Level 2 and Level 3 inventories ¹ report on a site-by-site basis if the facility complies with the rules or has a potential environmental threat. However, there were 32 such inventories available statewide, and only 11 inventories consistently reported environmental problems throughout the inventory. Therefore, with this limited distribution of data, existing inventories could not be used to provide a statewide estimate of the number of feedlots that would not comply with the rules.

To overcome this data deficiency, a survey of County Feedlot Officers in delegated counties or Soil and Water Conservation District and county environmental staff was conducted. This survey addressed several of the key issues of this report:

1. How many facilities do not comply with the rules?
2. How many facilities would come into compliance with less than \$3,000 of improvements?
3. How many facilities would require more than \$3,000 to come into compliance?
4. How many facilities need to develop manure and nutrient management plans?
5. How many facilities would require handling and application equipment upgrades to comply with the rules?

The survey instrument is shown in Appendix B. The form was sent out to all counties; 51 counties responded, Figure 2. These responses come from 60% of the counties in the state and include approximately 90% of all feedlots as calculated from the 1997 US Census of Agriculture. This response rate may be inflated because of differences between what the US Census of Agriculture reports as a feedlot and what the local governments consider a feedlot. Nevertheless, the workgroup feels the results of this survey are representative of the state and are as reasonable an estimate of actual conditions that can be made at this time, even though it lacks detailed on-site environmental evaluations as required by Level 3 inventories. To enhance the accuracy of this survey, only information about those feedlots visited by local staff was requested. This is believed to increase the reliability of the data because only sites with at least a firsthand, on-site visit are considered. It is recognized that in some cases the visit might have been caused by a complaint or some other violation that would bias the result to include a

¹ The state has three levels of inventories, Level 1, the simplest, that reports whether or not livestock are in a confined situation; Level 2, which provides the number of head on site as well as distances to surface waters, wells and if a basin is present; and Level 3, which includes the information from Level 2 inventories as well as information about the size of basins and lagoons and a FLEVAL (Feedlot Evaluation System) rating which objectively evaluates whether a facility has a potential discharge to surface or ground waters.

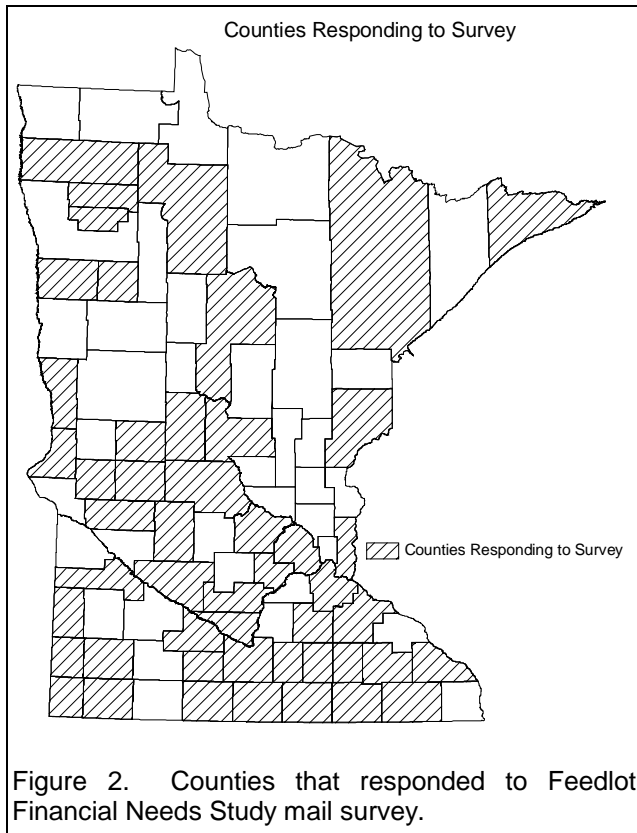


Figure 2. Counties that responded to Feedlot Financial Needs Study mail survey.

high percentage of non-compliant sites. However, without a firsthand visit, any information provided would have been merely conjecture by the responding local staff.

The statewide estimated percentage of noncompliant feedlots was determined by calculating the percentage of all noncompliant feedlots identified during on-site visits to the total number of all feedlots visited by local staff. The survey indicated about 40% of all visited sites might need additional improvements to facilities, operations or management to comply with feedlot rules. By applying this percentage to the total number of feedlots in the state as shown in Table 6, the total number of operations that do not comply can be estimated. Currently, about 10,000 operations are not in compliance.

Section 7020.2003 subpart 5 of the rules attempted to differentiate between minor, interim corrective measures and implementation of all practices necessary to come into full compliance. Minnesota Statutes, section 116.07, subdivision 7,

paragraph (p) also differentiated between measures that the operation could be expected to complete without the MPCA forcing implementation through enforcement actions. In an attempt to identify this difference between simple modifications and major improvements, the survey asked how many facilities would comply with the rules if minor improvements costing less than \$3,000 would be implemented. Such minor improvements might include rain gutters, simple diversion berms or vegetated buffer areas.

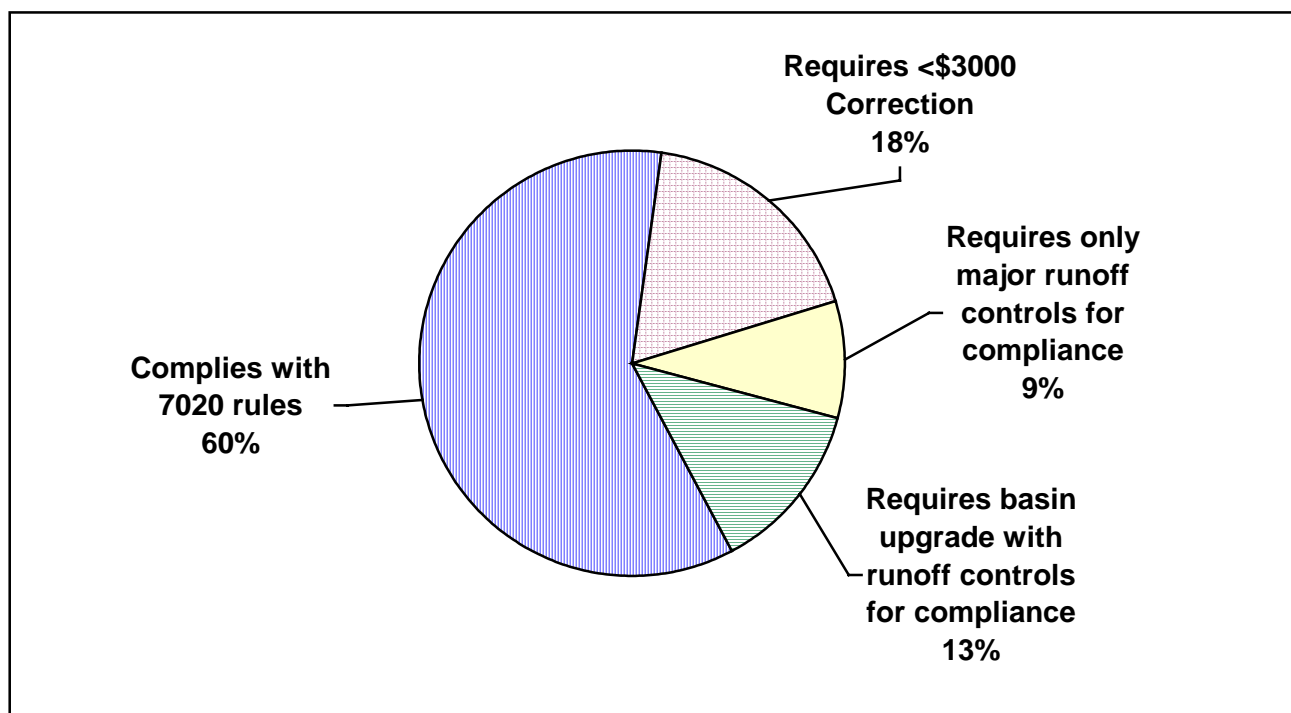
The survey suggested that about 18% of all feedlots would come into compliance with minor corrections costing less than \$3,000, while 22% of all feedlots would require major corrections such as new or expanded storage facilities and more expensive diversions, filter strips, buffers and other feedlot improvements. The survey also attempted to separate non-complying facilities into those that need just major runoff controls and those that required improved manure storage facilities as well as runoff controls. However, due to inconsistent responses, only the number of minor corrections costing less than \$3,000 and those costing more could be reliably determined. For informational purposes only, the 22% major correction estimate could be divided into two types: about 9% of all feedlots would require only major runoff controls while 13% of all feedlots would require both a basin or storage upgrade and runoff controls, Figure 3 and Table 7.

Table 7. Local Government estimates of noncompliance to 7020 rules.

	Percentage	
Number of Counties Responding	60% of all counties in state responded	
Number of Feedlots in Responding Counties	90% of all feedlots required to register under rules are included in responding counties	
Number feedlots visited	45% of feedlots in reporting counties were visited	
Number visited sites that do not comply with state and local rules	40% of all visited sites do not comply with rules	
<hr/>		
<i>Number of sites with <\$3,000 corrections</i>	18% of all feedlots	
<i>Number with major runoff corrections only</i>	22% of all feedlots	9% of all feedlots
<i>Number with basins and runoff corrections</i>		13% of all feedlots

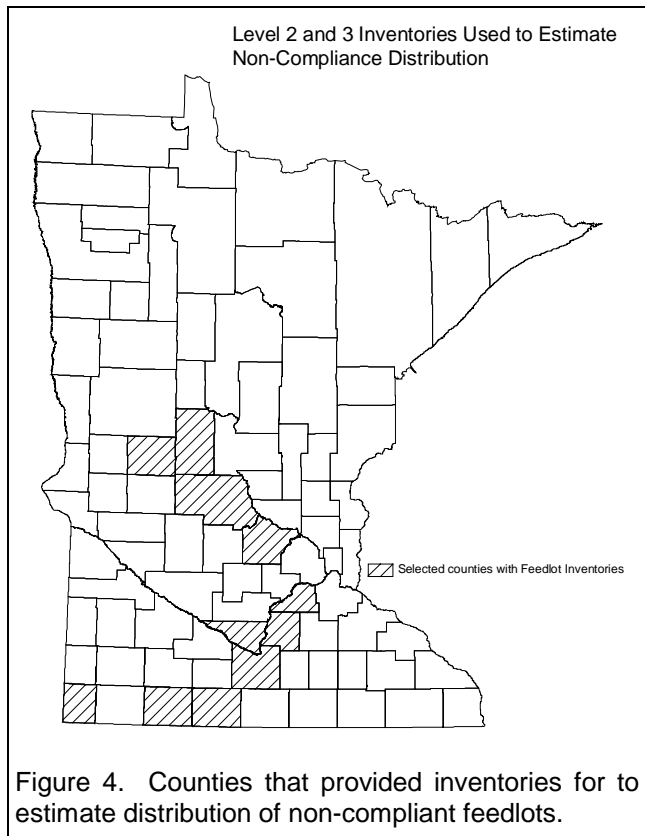
1. Percentages shown are rounded.
2. The data is taken from a survey of County Feedlot Officers and Soil & Water Conservation District staff.

Figure 3. Local government estimates of noncompliance to 7020 rules.



1. Percentages shown are rounded.
2. This data is taken from a survey of County Feedlot Officers and Soil & Water Conservation District staff.

Although this survey provides a statewide estimate of the percentage of feedlots that would not comply with the 7020 rules, it provides no means to evaluate non-compliance by the size of operation as required by the legislation or the type of species raised. In order to break down the non-compliant facilities by size of operation and species produced, the available Level 2 or 3 inventories from eleven counties that had both size and species information, as well as potential environmental problems were evaluated to estimate the average percentage of the feedlots that do not comply by size and species, Figure 4. In these eleven inventories, there were 957 sites that were identified as having a potential environmental problem. By comparing the number of non-complying sites by species and operation size to the total number of non-complying sites in



all the inventories (957), a typical distribution of non-compliant operations can be developed, regardless of the size of the livestock industry within the individual counties or the completeness of the individual counties' inventory. This distribution is shown in Table 8.

Because the feedlot inventories did not consistently include poultry and sheep, it was assumed for this report that the percentages of those facilities that does not comply would be consistent with the statewide estimate of non-compliance (40%) and proportional to their contribution to the total feedlot population, as shown in Table 3. These estimates of non-compliant farms are shown in the poultry and sheep rows of Table 8. Because poultry and sheep's contribution to the total number of feedlots is so small, such estimates are reasonable. However, to make the total of all percentage equal 100%, the value for cattle operations 10-49 AU was reduced to compensate for poultry and sheep. This small adjustment to the 10-49 cattle category, one of the largest groups in this analysis, does not greatly affect the

evaluation's outcome of financial impact, yet it makes a necessary mathematical correction.

Table 8. Distribution of non-compliant feedlots by size of operation and predominate species raised.

Species Produced	10-49 AU	50-99	100-299 AU	300-499 AU	500-999 AU	>1000 AU	TOTAL
	Percent of non-complying sites that would not comply with rules based on Level 2 & 3 inventories						
Hogs	1.4%	7.3%	8.4%	3.9%	1.4%	0.1%	22.4%
Dairy	2.3%	7.4%	16.2%	1.3%	0.2%	0.1%	27.5%
Cattle	11.6%	16.2%	11.1%	5.0%	2.8%	0.4%	47.2%
Poultry	0.2%	0.2%	0.7%	0.3%	0.2%	0.3%	1.9%
Sheep	1.1%	0.1%	0.0%	0.0%	0.0%	0.0%	1.1%
TOTAL	16.5%	31.2%	36.3%	10.5%	4.6%	4.6%	100%

1. Data from selected Level 2 and Level 3 county inventories that contain environmental assessment data.
2. Numbers shown are rounded.

E. Declining Feedlot Numbers

Over the 10-year time compliance schedule outlined in state rule 7020, it is expected that a number of feedlots will go out of business. It is assumed that only those sites with a high likelihood to continue operations for the full ten year implementation schedule would actually receive state and/or federal financial assistance. To estimate the feedlot loss rate, the rate of change between the 1996 and 1999 livestock operation numbers reported in the respective Minnesota Agricultural Statistics Annual Reports was calculated based on size of operation and species raised for hogs, dairy and cattle operations. The midpoint of the reported size range of

operation, in head of livestock, was converted to animal units using the conversion factors listed in Table 2. Poultry and sheep were not reported appropriately in the Minnesota Agricultural Statistics Report; therefore, 1992 and 1997 US Census of Agriculture reports were used to calculate change rates for poultry and sheep. The US Census of Agriculture did not include size of operation detail for poultry; therefore, the decline rate was calculated for the industry as a whole for the state, hence all categories have the same value.

Several exceptions were made to these change rates to reflect the actual farm economy and application of feedlot and cost-share rules.

1. There was a 16% increase in the number of hog operations in the 500-999 animal units category. Because feedlots greater than 500 AU are not eligible for state cost-share, yet the mathematical effect of a 16% annual compounded rate of increase is so great, a net change of 0% was used for this size category in this report.

2. Dairy operations in the 300 to 499 category have increased at 36% per year, yet the dairy industry has been suffering an average decline of 5.8% percent per year. Because an average annual increase of 36% per year would significantly skew the number of dairy operations that would require corrections, a different value (+7%) was empirically calculated such that this size category would increase, yet the overall dairy industry would decline by the observed 5.8%. This value corrects for some growth in this category as smaller farms that would be eligible for cost-share expand to maintain financial solvency, yet results in the overall industry average of about 6% decline in total dairy farm numbers per year.

Table 9. Estimated average annual rate of change in number of feedlot operations.

	10-49 AU	50-99	100-299 AU	300-499 AU	500-999 AU	>1000 AU
Species Produced	Estimated Annual Rate of Change in Number of Operations by Size and Species					
Hogs	-9.4%	-9.4%	-6.7%	-2.0%	(16%) 0.0%	0.0%
Dairy	-6.7%	-6.7%	-3.2%	(36%) 7.0%	0.0%	0.0%
Cattle	-0.6%	-0.6%	4.0%	-0.4%	-0.4%	-0.4%
Poultry	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%	-1.7%
Sheep	-6.5%	-8.0%	-6.2%	-6.7%	-8.0%	

1. Numbers shown in () indicate actual calculated value. Numbers without () are values used in this evaluation.
2. Data calculated from 2000 Minnesota Agricultural Statistic Report.

Table 10 shows the estimated number of feedlot operations by size and species that will require improvements to comply with state rule 7020, based on the previously described data. Because the US Census of Agriculture data, the County Feedlot Officer Survey and the Level 3 inventories are all independent assessments, combining this data has resulted in some numerical inconsistencies. The numerical distribution of non-compliant sites is calculated based on the estimated total number of non-compliant sites in 10 years (not the individual number of operations listed in each cell of Table 3) and the reported percentage distribution of non-compliant sites by size and species in a few inventories, Table 8. This calculation has resulted in some cells in Table 10 having more facilities to fix than what was calculated as the future population after 10 years of declining farm numbers. It is believed that these inconsistencies are due to differences in how farm numbers are reported for the US Census of Agriculture and the Level 2 and 3 county inventories, the use of a constant decline rate for the full ten-year period, and the adjustment to the cells with increasing number of farms. The data in the TOTAL row and column may be reasonable estimates of non-compliance by size or species of operation given the data and information available to us at this time; however, the precision of the values reported in each of the table's cells is subject to the limitations of that information and data.

Table 10. Number of feedlots that will require improvements over the next 10 years.

Species Produced	10-49 AU	50-99 AU	100-299 AU	300-499 AU	500-999 AU	>1000 AU	TOTAL
	Number of Sites that would not comply with rules						
Hogs	40	531	608	281	99	7	1,566
Dairy	150	539	1,178	91	15	7	1,980
Cattle	833	1,178	805	365	205	31	3,417
Poultry	3	15	50	24	17	19	128
Sheep	19	4	2	0	0	0	25
TOTAL	1,045	2,267	2,643	761	336	64	7,116

1. Data calculated from prior tables.

F. Cost of Manure Storage and Runoff Control Improvements

The Minnesota Department of Agriculture's Agricultural Best Management Practices loan program has provided over 700 loans for agriculture waste management including basin construction, diversions, feedlot improvements, manure handling equipment and application equipment. Of these loans, detailed information including size of operation, species raised and total cost of the entire project was available for over 200 manure management practices (total cost of improvement or other data was not provided by Local Governments for the remaining 500 projects). Table 11 shows the average cost of major constructed practices such as basins and runoff control projects and equipment for handling and applying manure. Inadequate information was available for poultry; therefore, the overall average for all constructed practices (\$40,000) was used for those facilities. In reviewing the types of practices implemented on sheep and small beef operations where pasture feeding is typical, runoff control projects are common. The average cost of runoff control projects, without storage basins, is about \$20,000. This cost was used for all sheep projects and cattle operations with less than 50 animal units.

Table 11. Average expense for constructed practices or equipment required for compliance to state rule 7020.

Species Produced	Constructed Practice	Equipment Costs
Hogs	\$37,000	\$17,000
Dairy	\$50,000	\$22,000
Cattle (<50 AU)	\$20,000	\$22,000
Cattle (>50 AU)	\$40,000	\$22,000
Poultry	\$40,000	\$21,000
Sheep	\$20,000	\$21,000
Overall Average	\$40,000	\$21,000

1. Costs shown are rounded.
2. Data from Agricultural Best Management Practices Loan Program.

An expense of \$3,000 per operation was used to estimate the total cost of implementing practices where minor corrective measures would bring the site into compliance. The expenses per practice shown in Table 11 were used to estimate the total cost of major corrective measures based on the distribution by size and species produced.

It is estimated that a total of about \$165 million is required to finance the constructed projects that would bring all feedlots that stay in business over the ten-year period into compliance with state rule 7020, Table 12.

Table 12. Cost for construction of basins and runoff control practices for compliance to state rule 7020.

Species Produced	10-49 AU	50-99 AU	100-299 AU	300-499 AU	500-999 AU	>1000 AU	TOTAL
	Total cost for repairing sites that would not comply with rules						
Hogs	850,000	11,530,000	13,230,000	6,080,000	2,140,000	105,000	\$33,935,000
Dairy	4,400,000	15,540,000	34,010,000	2,620,000	420,000	205,000	\$57,195,000
Cattle	10,340,000	27,510,000	18,800,000	8,500,000	4,780,000	735,000	\$70,665,000
Poultry	100,000	320,000	1,170,000	530,000	420,000	425,000	\$2,965,000
Sheep	230,000	10,000	0	0	0	0	\$240,000
TOTAL	\$15,920,000	\$54,910,000	\$67,210,000	\$17,730,000	\$7,760,000	\$1,470,000	\$165,000,000

1. Values shown have been calculated from prior tables in this report and have been rounded to reflect precision of available information.

G. Engineering Assistance Costs

Most feedlot runoff control and manure storage practices implemented to bring feedlots into compliance with the feedlot rules involve engineering. The general phases of engineering assistance include planning (including site surveys), design and construction inspection. State and federal financial assistance programs for conservation and pollution abatement on private lands recognize the need for technical assistance to implement projects.

The estimated costs for feedlot runoff and manure storage upgrade needs shown above are based on past project costs that predominately do not include engineering assistance costs. State and federal cost-share and loan programs used for feedlot pollution abatement are supported primarily by separate public engineering assistance capability. State and federal feedlot cost-share programs are also focused on small feedlots, where private engineers often cannot make a profit providing assistance and the feedlot operator waits for public engineering assistance. Private engineering assistance is not eligible for cost-share via the federal Environmental Quality Incentives Program (EQIP); however, it is eligible for state cost share assistance. Therefore, this report maintains the traditional perspective of separating the cost of engineering from the cost of construction.

The cost of engineering assistance needed to implement feedlot pollution abatement projects can vary substantially, depending primarily on site conditions and the scope of the problem. Based on available state and federal program information, engineering assistance costs for feedlot pollution abatement projects averages 15% of construction costs. Therefore, the estimated current cost of engineering assistance needed to implement feedlot runoff and manure storage upgrades at feedlots with less than 1,000 animal units is \$25 million.

H. Nutrient Management Planning Costs

The feedlot rules require development of a manure management plan with specified components, at the time of permit application, for all feedlots with 100 or more animal units that are required to obtain an National Pollutant Discharge Elimination System, State Disposal System, interim or construction short-form permit (7020.2225, Subpart 4). All required manure management plans are to be reviewed annually and updated when significant changes occur.

Feedlot facilities with an open lot, less than 300 animal units and a pollution hazard that enter into an open lot agreement to install interim corrective measures by October 1, 2005 and final

corrective measures by October 1, 2010 are not required to obtain a permit and, therefore, do not need a manure management plan, unless requested by the commissioner of the MPCA or county feedlot pollution control officer. The MPCA estimates that approximately 60% of all feedlots between 100 and 300 animal units will elect to make improvement under the open lot agreement and would be exempted from preparing a manure management plan. This would result in approximately 1,000 facilities with less than 300 animal units needing a manure management plan.

Feedlot facilities with a capacity greater than 300 animal units that do not need a permit still need a manure management plan that complies with the feedlot rules by January 1, 2005, except when manure is applied by a commercial animal waste technician or certified private manure applicator. There are an estimated 1,200 feedlots with between 300 and 999 animal units that need to request a permit and submit a manure management plan to comply with the feedlot rules. It is assumed that half of these facilities would use a certified commercial or private manure applicator; and therefore, would be exempted from the manure management plan requirement. The remaining 600 feedlots in this size category would be required to develop and submit a manure management plan. (Currently, there are approximately 300 certified commercial animal waste technicians in Minnesota; however, only a few of these commercial applicators are known to offer nutrient management planning services that address all sources of nutrients on lands where manure is applied. The 2000 session laws required a report from the MDA with recommendations for training, examination, certification and costs of a private manure applicator certification program.)

The typical cost of developing a new manure management plan that complies with the feedlot rules is estimated to range from about \$1,000 to \$2,800, with an average of \$1,800, based on communications with nutrient management specialists at the USDA Natural Resources Conservation Service in Minnesota, the University of Minnesota Extension Service and the Cenex Land-O-Lakes cooperative. Primary reasons for the variability of costs for plan development include the number and location of fields involved, manure type and nutrient content, and variability of soils and crop rotations where manure is applied. The total estimated cost for development of new manure management plans for 1,600 feedlots is approximately \$3 million. Updates to these plans are estimated to cost between \$500 and \$1,500, with an average of \$900 per plan. Assuming the plans only need revision every two years, the average annual statewide cost for updating these plans will be \$700,000. Therefore, for the ten year period, the total cost to initially prepare the plans and periodically update them is \$10 million.

I. Manure Handling and Application Equipment Upgrades

Cost-share funds will assist farmers to finance structural practices to collect and store manure and to prevent runoff. Equipment to load, transport and apply the manure to lands has not been an eligible cost-share expense, though these practices are eligible for Ag BMP and CWP loans. The survey of county feedlot officers also asked for the number of operations that would require manure handling equipment upgrades to comply with the rules. The reported estimates varied widely and several counties failed to respond to this question. To reduce the bias of those counties reporting very large numbers, the median reported value was calculated. It is estimated that approximately 10% of all livestock operations need to improve their equipment to manage their generated waste. This percentage is used with the entire number of feedlot operations that survive the full ten years, or approximately 1,800 farms will need to upgrade manure handling equipment at an estimated total cost of \$38 million to comply with the rules.

V. CURRENT FINANCIAL AND TECHNICAL ASSISTANCE FOR FEEDLOTS

Financial and technical assistance for feedlot pollution abatement are available through a number of state and federal programs for conservation and nonpoint pollution reduction. These programs are administered by several state and federal agencies, often in cooperation with Soil and Water Conservation Districts and Counties. The types of assistance available fall into three general categories:

1. Grants (cost-share);
2. Low interest loans; and
3. Technical assistance (engineering and manure management).

Following are summaries of the various programs, including the recent average annual amount expended for feedlot pollution abatement. Data from the BWSR Local Area Reporting System for calendar years 1998 and 1999 indicate that on average, construction of cost-shared feedlot pollution abatement projects were funded 50% by cost-share grants, 25% by low interest loans and 25% by feedlot owner cash or private loans. The limit on the combined total of state and federal feedlot cost-share is 75% of the project's total eligible costs, or \$50,000, whichever is less.

A. Cost-Share Grants (current total of \$4.9 million per year)

Clean Water Partnership Grant Program (CWP) – MPCA: This competitive program provides funds to local government units to address a broad range of nonpoint source pollution problems. Local government unit recipients must have completed a watershed diagnostic investigation and provide 50% non-state match in order to receive project implementation funding. This program typically spends about \$300,000 for feedlot upgrades annually.

Section 319 of Clean Water Act (319) -- EPA through MPCA: A competitive program awarding federal grants to local government units and other state and local entities to implement the state nonpoint source management plan, including feedlot pollution abatement and manure management pilot projects. Applications are ranked according to MN rule criteria. A 50% non-federal match is required. Approximately \$300,000 from this program goes into feedlot corrections annually.

Environmental Quality Incentive Program (EQIP) – NRCS: A competitive program focusing 66% of total funding into annually designated priority areas and 33% to the remainder of the state. Approximately 50% of the current EQIP cost-share funding is directed to environmental quality improvements at livestock operations. In recent years, approximately \$1.2 million and \$0.4 million per year has helped cost-share construction of waste management systems in the priority areas and remainder of the state, respectively. Cost-share is only for solutions to existing pollution problems (i.e. will not share costs for feedlot expansion). The NRCS typically funds 50-70 feedlot runoff control and manure storage structures per year. Approximately \$0.4 million per year is used for other livestock pollution abatement practices, including incentive payments for about 100-120 new nutrient management practices per year on farms with livestock operations. Currently, about 80% of federal feedlot cost-share funds go to operations with less than 300 animal units. In total, about \$2 million is available annually through this program for feedlots.

Local Water Planning (LWP) Challenge Grants – BWSR: A competitive program awarding grants to local government units to accelerate implementation of comprehensive local water plans. A 50% non-state match is required. Some local government units use these challenge grants for high priority feedlot pollution abatement. About \$300,000 is used annually for feedlot improvements.

Regular State Cost-Share Program – BWSR: Competitive and non-competitive grant funding to private landowners through SWCDs for a wide variety of erosion control and water quality improvement practices, including feedlot pollution abatement. Cost-share is only for solutions to existing pollution problems (i.e. will not share costs for feedlot expansion). About \$500,000 per year is typically used for abatement of feedlot problems.

Feedlot Water Quality Management (FWQM) Cost-Share – BWSR: Competitive grant funding to feedlot owners through SWCDs for feedlot pollution abatement only. Cost-share is only for solutions to existing pollution problems (i.e. will not share costs for feedlot expansion). Two key program priorities include feedlots in riparian areas (i.e. in shoreland, near sinkholes and in certain well-head protection areas) and feedlots with the highest pollution potential (based on the Feedlot Evaluation Model). Data from 1998 and 1999 indicates that approximately 75% of this cost-share goes to feedlots with less than 300 animal units. All of this program's \$1.5 million per year appropriation is used for feedlot pollution abatement.

Table 13. Summary of available state and federal grant funding for feedlot projects.

GRANT PROGRAMS Name of Program	FY '01 Appropriation	Recent Average Annual Amount Expended for Feedlots	Typical Number of Facilities Funded Annually	Constructed Practices	Application Equipment	Engineering & Administration	Nutrient Planning & Education	Eligibility Requirements
Clean Water Partnership Grant Program, (CWP) - MPCA State & Federal funding sources	\$2,300,000	\$280,000	6	X		X	X	Feedlot must be within the watershed project area and cannot be under an enforcement action.
Section 319 Clean Water Act Non-point Source Grant Program - MPCA Federal funding sources	\$3,000,000	\$322,000	11	X		X	X	Competitive program for all types of Nonpoint Source projects. Must be in the eligible project area.
Environmental Quality Incentive Program - NRCS Federal funding sources	\$4,000,000	\$2,000,000	170	X			X	Agricultural producers, Max. size <1000 Animal Units, Max. grant amount up to 75% or \$50,000, whichever is less. Existing problems only.
Local Water Planning - BWSR State funding sources	\$2,600,000	\$300,000	15	X		X	X	Implement priorities of Local Comprehensive Water Plan.
State Cost-share Program – BWSR State funding sources	\$2,620,000	\$500,000	25	X		X		Max Size <500 AU. Max grant up to 75% or \$50,000 whichever is less. Approved by local SWCD Board. Wide range of conservation practices are eligible.
Feedlot Water Quality Management Cost-share - BWSR State funding sources	\$1,500,000	\$1,500,000	70	X		X		Max Size <500 AU. Max grant up to 75% or \$50,000 whichever is less. Approved by local SWCD Board. Only constructed feedlot pollution abatement is eligible.
TOTAL	\$16,020,000	\$4,902,000	297					

1. The Department of Natural Resources and the Health Department do not provide funds for feedlot improvements or operations.
2. NRCS number of projects includes 50-70 feedlot runoff and manure storage projects and 100-120 other livestock pollution abatement and manure management incentive projects.
3. Information collected by MDA from respective government agencies.

B. Loans (current total of \$3.1 million per year)

Agricultural Best Management Practices Loan Program (Ag BMP) – MDA: This program provides loans to farmers for various water quality improvement practices, including feedlot pollution abatement. These projects might include constructed practices such as manure storage basins, manure stacking areas, clean water diversions, rain gutters and filter strips. Loans are restricted to farmers or farm supply businesses. The maximum loan amount is \$50,000 with a maximum term of 10 years and 3% interest. This program is most often administered locally by a Soil and Water Conservation District or county environmental office.

In recent years, this program has provided about \$6.5 million annually for all eligible best management practices. Feedlot related practices constitute about 40% of all the practices funded through this program or about \$2.6 million dollars per year for agricultural waste management projects. About \$1.4 million has gone for constructed practices and \$1.2 million for manure handling and application equipment loans per year.

Rural Finance Authority (RFA) – MDA: The Rural Finance Authority provides financial assistance to a variety of farms through loan participation programs. Feedlot improvements and pollution abatement are eligible through the Agricultural Improvement Loan Program. However, this type of farm improvement has been a small component in the overall use of this program.

Clean Water Partnership (CWP) Loans – MPCA: This competitive program awards loans to local government units who have completed a required watershed investigative study for nonpoint source pollution reduction, including feedlots. A 50% non-state match is required. Applications are ranked according to MN rule criteria. This program has provided loans totaling about \$3.2 million annually, of which about 15% (\$500,000) has been used for feedlot improvements.

The column “Recent Average Annual Expenditure for Feedlots” in Table 14 reflects the amount of funds that has been spent on feedlot improvements given the current combination of new appropriations to these loan programs and revolving funds from prior appropriations. These loan programs help fund many other types of nonpoint pollution reduction projects. If the total amount of funds available through these programs is reduced, the funding level for feedlot practices will also be reduced.

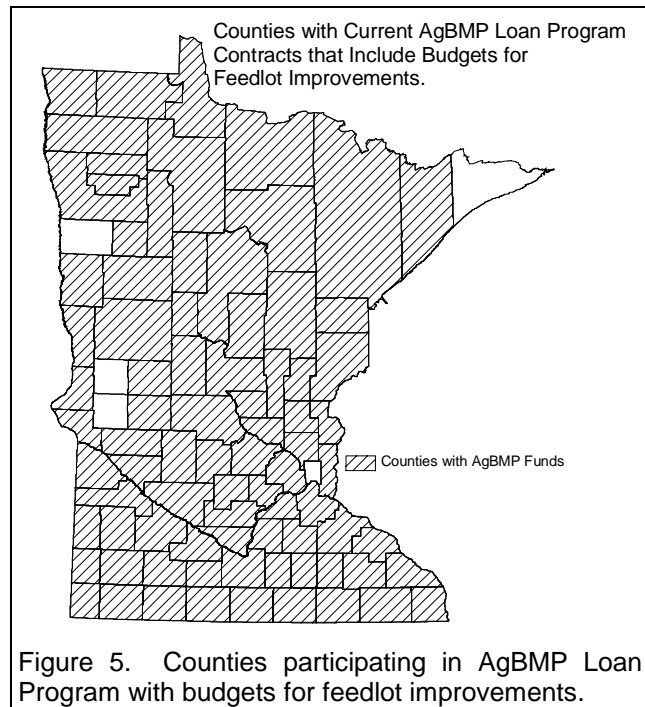


Figure 5. Counties participating in AgBMP Loan Program with budgets for feedlot improvements.

Table 14. Summary of available state and federal loan funding for feedlot projects.

LOAN PROGRAMS Name of Program	Anticipated Revolving Funds Available in FY '01	Recent Average Annual Amount Expended for Feedlots	Typical Number Annually Funded	Constructed Practices	Application Equipment	Engineering & Administration	Nutrient Planning & Education	Eligibility Requirements
AgBMP Loan Program Constructed Improvements – MDA Federal and State funding	\$4,000,000	\$1,400,000	60	X		X	X	Farmer, Rural Landowner, Farm Supplier. Project Approved by LGU Max Loan Amount \$50,000, Max. Size < 1000 Animal Units
AgBMP Loan Program Manure Handling Equipment – MDA Federal and State funding		\$1,200,000	70		X		X	
Clean Water Partnership Loan Program - SRF, (CWP) –MPCA Federal funding sources	\$1,200,000	\$500,000	25	X		X	X	Feedlot must be in the watershed project area and cannot be in an enforcement action.
Ag Improvement Loan Program-MDA State funding sources	As need from bond sales	\$50,000	2	X		X		Max Net Worth: \$250k, 45% loan participation Max loan amount \$125k
TOTAL	\$5,200,000	\$3,150,000	157					

1. Assumes that total funding available to the program remains constant at current levels.
2. Information collected by MDA from respective government agencies.

C. Technical Assistance (current total of \$1 million per year)

1. Engineering Assistance

Feedlot operators have three primary sources of engineering assistance for planning, design and construction inspection of feedlot upgrades for pollution abatement:

- Soil and Water Conservation Districts (SWCDs);
- USDA Natural Resources Conservation Service (NRCS); and
- Private engineering consultants.

SWCDs, the NRCS and the BWSR have a longstanding cooperative relationship to provide financial and technical assistance for conservation practices and environmental protection on private lands in Minnesota. This includes engineering assistance for feedlot upgrades to meet state water quality protection standards and periodic monitoring of implemented practices. The NRCS maintains numerous conservation practice planning, design and specification standards applicable to feedlot upgrades, in cooperation with SWCDs, the BWSR and MPCA. Both federal and state cost-share programs for conservation practices on private lands use these standards.

NRCS Engineering Assistance – USDA:

The seven NRCS areas in Minnesota, Figure 6, have one area engineer and one or more engineering technicians in each, and sometimes additional engineer trainees in high workload areas. NRCS staffing in Minnesota was reduced during the 1990's, but has remained relatively stable in recent years. Feedlot engineering assistance is a major workload for many of the NRCS area offices. Most of the NRCS engineering assistance for feedlots supports the federal Environmental Quality Incentives Program (EQIP).

The NRCS focuses feedlot engineering assistance on operations with less than 500 animal units. While systems designed with private engineering assistance are eligible for EQIP cost-sharing, EQIP does not cost-share the costs of private engineering assistance. In recent years, the NRCS has provided direct engineering assistance for approximately 50-70 complete feedlot pollution abatement systems per year in Minnesota.

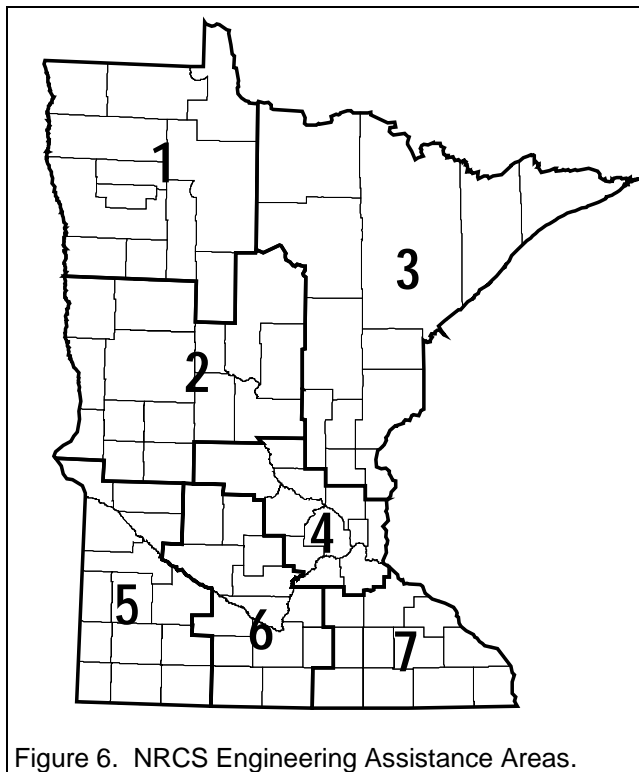


Figure 6. NRCS Engineering Assistance Areas.

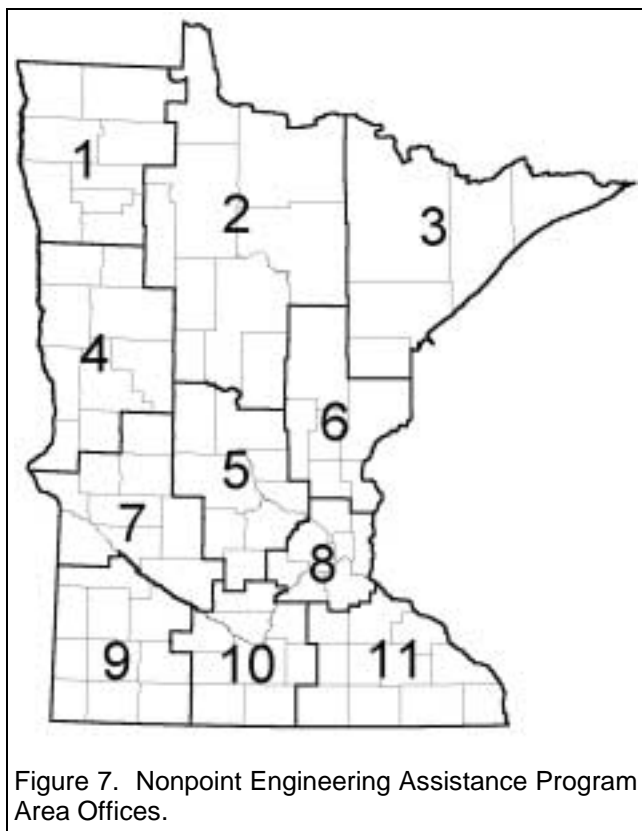


Figure 7. Nonpoint Engineering Assistance Program Area Offices.

Non-Point Engineering Assistance (NPEA) Program – BWSR: Grant funds are provided to 11 joint powers organizations of Soil and Water Conservation Districts (SWCDs) statewide, Figure 7, that employ engineers and technicians to assist landowners to plan, design and implement conservation practices, including feedlot pollution abatement practices. The NPEA program was created in 1994 when money from the State Revolving Loan Fund (SRF) was appropriated for nonpoint source pollution reduction via the Agricultural Best Management Practices Loan Program administered by MDA and the Clean Water Partnership Loan Program administered by MPCA. NPEA program staff also provide feedlot engineering assistance for the state Feedlot Water Quality Management and regular Cost-Share programs administered by the BWSR, and the federal EQIP administered by the NRCS.

The NPEA program greatly increased the availability of engineering assistance for feedlot pollution abatement through SWCDs.

In recent years, the NPEA engineers and technicians have assisted approximately 80 to 120 small feedlots per year. The size of feedlots assisted is limited by eligibility criteria for the various grant and loan programs involved. Due to increasing program staffing costs, the

engineering assistance capacity of this program will be reduced with time, unless additional funding becomes available.

Consulting Engineers – Private Industry: Private consulting engineers have assisted an increasing number of feedlots, due to the ongoing federal, state and local government focus on feedlot pollution abatement. Engineering assistance from private engineers to plan, design and implement feedlot upgrades to fix existing environmental problems is an eligible state cost-share expense though it is not eligible for federal cost-share. BWSR estimates that private engineers assist approximately 50 – 60 feedlots per year that involve federal and/or state financial assistance.

When NRCS or NPEA program staff provide engineering assistance for feedlot pollution abatement projects, there is no engineering cost to the feedlot owner. Therefore, eligible feedlot owners will usually wait for SWCD or NRCS engineering assistance unless other factors such as feedlot expansion plans, owner financing timeline constraints or possible formal enforcement actions for a feedlot rule violation require immediate upgrades. Private consulting engineers are not interested in assisting feedlots where they have little opportunity to make a profit. The construction inspection phase of small feedlot projects is reportedly most problematic in this regard for consultants, due to travel and time requirements. Therefore, small and/or complex feedlot sites that do not involve a major expansion in conjunction with fixing an existing pollution problem typically seek engineering assistance from SWCDs or the NRCS.

It is estimated that in recent years public and private engineers have assisted a total of approximately 180 to 250 small feedlots per year that receive state and/or federal financial assistance for pollution abatement.

2. Manure Management Technical Assistance

Feedlot operators may have several potential sources of technical expertise for comprehensive manure management plan development and updating including: independent and cooperative crop consultants, NRCS, University of Minnesota Extension Service, local Soil and Water Conservation Districts and Counties. Some of these resources are not available in all areas of the state.

Federal EQIP projects in Minnesota currently assist the development of approximately 120 new nutrient management plans per year and updating of about 220 plans per year. Approximately half of these plans are developed by private crop consultants and the remaining half by NRCS staff.

Several pilot nutrient management planning and incentive projects are ongoing in Minnesota, funded by EPA 319 grants and counties. It is estimated that these pilot projects assist approximately 20 – 40 feedlot operations per year. These projects are helping to identify the most effective public-private partnerships for improved manure and inorganic fertilizer management that effectively manage risks for crop production and water quality protection.

Table 15. Summary of available state and federal funding for technical assistance for feedlot projects and rule implementation.

TECHNICAL ASSISTANCE Name of Program	FY '01 Appropriation	Recent Average Annual Amount Expended for Feedlots	Typical Number Annually Funded	Constructed Practices	Application Equipment	Engineering & Administration	Nutrient Planning & Education	Eligibility Requirements
Non-Point Engineering Assistance - BWSR State funding sources	\$1,130,000	\$600,000	100			X	X	State and/or federal conservation project cooperation. Implemented via joint powers groups of SWCDs. Engineering only.
NRCS Engineering and Agronomy Assistance Federal funding sources	\$800,000	\$400,000	60			X	X	Agricultural producer, Engineering assistance generally limited to operations with 500 or less AU.
TOTAL	\$2,930,000	\$1,000,000	160					

1. Information collected by MDA from respective government agencies.
2. The MPCA provides grants to counties for implementation of 7020 rules. These grants total about \$1.4 million and are for rule implementation and administration only. They cannot be used for technical assistance or installation of manure management practices.

VI. IMPLEMENTATION ISSUES

A. Costs by Size and Species Produced

This study has estimated that over 7,000 feedlot operations (Table 10) will need upgrades to comply with the 7020 rules. The following tables show the cost of structural feedlot runoff and manure storage improvements that are required by the 7020 rule by the size categories required by the legislature (Table 12) and by species produced (Table 16).

Table 16. Cost for construction of basins and runoff control practices for compliance to state rule 7020 by size of operation.

	10-49 AU	50-99 AU	100-299 AU	300-499 AU	500-999 AU	>1000 AU	TOTAL
Percentage of total cost by size of operation	9%	33%	41%	11%	5%	1%	
Cost	\$15,920,000	\$54,910,000	\$67,210,000	\$17,730,000	\$7,760,000	\$1,470,000	\$165,000,000

1. Values shown are rounded.
2. Summary of data shown in Table 10 and Table 12.

Table 17. Cost for construction of basins and runoff control practices for compliance with state rule 7020 by species produced.

Species Produced	Percentage by Species Produced	Total Cost by Species Produced
Hogs	20%	\$33,935,000
Dairy	35%	\$57,195,000
Cattle	43%	\$70,665,000
Poultry	2%	\$2,965,000
Sheep	0%	\$240,000
TOTAL		\$165,000,000

1. Values shown are rounded.
2. Summary of data shown in Table 10 and Table 12.

B. Minor Corrective Actions

The responses from local county contacts suggest that 18% of all facilities, some 3,200 farms, that do not currently comply could come into compliance with minor improvements costing an average of \$3,000. Many of these practices require minimal engineering and could often be constructed by the farmer, such as installing rain gutters, minor regrading of the landscape and establishing vegetated buffer strips around the feedlots. Under the rules, operations that implement these interim remedial practices would be granted additional time, until 2010, for construction of practices that would fully comply with the rules. The estimated cost to install these interim corrective measures is \$10 million. We have made no estimate of the cost for follow up practices beyond the interim corrective measures because we are unable to determine from the available information, the number of facilities that might require such additional upgrades.

C. Major Corrective Actions

The county feedlot officer survey also estimated that 22%, or 3,900 feedlots, would require major corrections. This includes practices such as repair or upgrading of storage basins, clean water diversion, manure containment and collection basins, curbs, retaining walls, vegetated filter strips. These are typically fully engineered and inspected as they are installed. Other limitations in addition to financial assistance will also limit the rate of construction, such as availability of engineers, experienced contractors, and construction weather, especially when installing basins. The construction of the major repairs could require the full ten-year period, if not longer, to complete. This program, if fully funded would require the construction of nearly 400 major projects per year. The total cost for major corrective measures is about \$155 million for construction and \$23 million for associated engineering.

D. Enforcement Authority

The current legislation prohibits the MPCA from taking any enforcement actions against any feedlot operation, except for imminent health threats, unless 75% cost-share is made available to the farmer. This limits the MPCA authority to regulate feedlot operations since there is less than \$5 million in cost-share available statewide currently, and the historical average cost-share award is only 50% of the project's total cost.

E. Priorities

The average farmer in Minnesota is over 50 years old. With the continuing downward trend in feedlot numbers, it is expected that many of the feedlots that are now operating will be out of business or in retirement by the end of the 10-year implementation period. In order to maximize the benefits of the financial assistance, it will be important to target the majority of these resources to the feedlots most likely to remain in production. This targeting effort may include operator and management factors, environmental concerns, size and production capacity, expansion potential, operational logistics, financial solvency, local economic conditions and other pertinent parameters

Other priorities may be established to allow facilities to make minor corrective measures and continue to operate through a portion of the 10 year period; however, it would be expected that the facility would either complete all corrective measures necessary to comply with the rules or to ultimately cease operations by the end of the 10 year period.

F. Local Government Units

The current cost-share and the Agricultural Best Management Practices Loan programs are driven by the work and accomplishments of the local government units, usually a Soil and Water Conservation District in conjunction with the county's environmental office. The local government units identify and prioritize operations most in need of repair. They will solicit the farmer's cooperation, develop options and provide guidance to achieve compliance, coordinate available technical assistance, assist the farm to apply for financial assistance and permits, provide assistance in developing engineering plans, inspections through practice construction and ultimately certification of completion. In most SWCDs, the staffing is limited to a manager, one to a few technicians and a clerk. Effective implementation of this program may be hampered by the limited capacity of local governments to enlist and assist potential clients through the administrative process and on site investigations for project approval and implementation.

G. Construction Limitations

A limitation that has been identified by counties through the AgBMP Loan program is the availability of qualified contractors and limited periods of construction. Program managers

report that highway departments and developing areas offer more lucrative opportunities to contractors than feedlot construction. Therefore, these projects receive first priority service over farm operations.

VII. STUDY CONCLUSIONS

A. Costs for Implementing Minnesota Statutes, section 116.07, subdivision 7, paragraph (p) and Current 7020 Rules

This report estimates the cost to feedlot operations to comply with the 7020 rules and the fiscal impact of Minnesota Statutes, section 116.07, subdivision 7, paragraph (p) to the state cost share program. The primary assumptions are:

- All constructed practices for facilities less than 1,000 AU, implemented to comply with the 7020 rules are eligible for some form of financial assistance.
- The cost-share award is calculated on the total cost of all eligible expenses.
- The cost-share grant amount is calculated as 75% of the total eligible cost. There is no limit to the maximum cost share award for facilities with less than 300 animal units. Facilities with 300 animal units or more have a maximum combined total of state and federal cost-share funds of \$50,000. (Because the average cost for improvements is less than \$50,000, Table 11, these maximum limits do not affect the cost calculations.)
- State cost-share is available only for facilities less than 500 animal units; federal cost-share and MDA's AgBMP Loan funds are available for facilities up to 1,000 animal units.
- The available funds will be targeted for facilities that are likely to be in production after the 10 years implementation time frame.
- The existing state and federal cost-share and other grant programs in Minnesota will continue to direct about \$5 million dollars per year to feedlot pollution abatement.
- The current estimate of total cost for all constructed practices is about \$165 million, of which about \$163 million would be eligible for state or federal cost-share.

To provide 75% cost-share funding to feedlot operators for implementing cost-share eligible practices that are required under state rule 7020, in accordance with the requirements MN statutes section 116.07, subdivision 7, paragraph (p), a total of \$122 million would need to be appropriated to the cost-share program over the next 10 years. This would require an increase to the state cost-share program of \$73 million during this time period, which is a \$7.3 million per year increase over existing federal and state funding, Table 18.

Table 18. Ten year and one year summary of total costs, eligible costs, available fund and additional need to meet MN statutes section 116.07, subdivision 7, paragraph (p).

	10 Year Period	One Year Average
Total Cost for Structural Upgrades	\$165,000,000	\$16,500,000
Cost Share Eligible Expenses	\$163,000,000	\$16,300,000
Amount of Cost-share Required to Match 75% of Eligible Expenses	\$122,000,000	\$12,200,000
Current Cost-share Funding Available (assumed to be constant)	\$50,000,000	\$5,000,000
Additional Cost Share Required to Meet Statutory Funding Level.	\$73,000,000	\$7,300,000

B. Other Costs Not Required under Minnesota Statutes, section 116.07, subdivision 7, paragraph (p).

In addition to these direct costs of construction, there are other costs associated with implementing the 7020 rules.

- The cost of designing and engineering the practices has averaged about 15% of the construction costs, or about \$25 million.
- The development of manure management plans will cost about \$3 million dollars. To keep these plans up to date, it is expected to cost an additional \$700,000 per year for a total of about \$10 million over the 10 year period.
- The estimated cost for manure hauling and application equipment is \$38 million. These costs are eligible through loan programs such as the Agricultural Best Management Practices or Clean Water Partnership Loan Programs.

The estimated total cost to the farmer for implementing the 7020 rule is about \$238 million, Table 19.

This study did not examine the cost of permit application, air quality plans, feedlot closure, local staff to administer the program, or agency staff to review feedlot permits.

Table 19. Summary of costs estimated by this study for implementation of 7020 rule over the next 10 years.

	Estimated Costs
Construction of Structural Upgrades	\$165,000,000
Engineering Assistance (15% construction costs)	\$25,000,000
Manure Management Planning and Updates	\$10,000,000
Manure Handling and Application Equipment Costs	\$38,000,000
TOTAL COST FOR 7020 RULE IMPLEMENTATION	\$238,000,000

Appendixes

APPENDIX A. ALTERNATIVES CONSIDERED

The animal agricultural industry in Minnesota contributes over \$9 billion to the state's economy and employs 153,000 people. Rapid changes in the rules regulating this industry can have a devastating impact to the individual farmers as well as the surrounding community that supports the agricultural industry. Changes in economic forces have also resulted in changes that have had severe impacts on the structure of this industry as compared to livestock production only 10 years ago. To meet the changes in the animal production industry, the rules that limit the environmental impacts of this industry have been changed, strengthening some measures that assure a clean and healthy environment, while providing a 10-year time schedule to implement the most costly provisions. In addition, Minnesota has historically provided financial incentives to the agricultural community to encourage their implementation of practices and rule requirements that result in public health and environmental benefits.

The legislature requested that the Commissioner of Agriculture study the impacts of the new feedlot rules and estimate the economic cost to the farmer and the cost to the state if the public cost-share programs provide 75% of the financing to implement environmental remediation practices. The Commissioner was also to make recommendations to the legislature for anticipated state spending to provide matching funds for upgrades.

Several options were considered, based on the assumptions presented in the main body of this report. These options include:

- No change in program implementation or funding levels
- 75% Cost-share as required under 116.07 subd. 7(p)
- \$3,000 and \$10,000 deductibles before the calculation of cost-share
- Average 50% Cost-share and 50% State funded loans
- Current Cost-share funding level with additional funds distributed as loans
- Maintaining historical funding levels with targeting of priority operations

The cost of upgrades to facilities larger than 1,000 animal units are not included in the following options because the rules require that they be in immediate compliance and are not eligible for financial assistance (estimated upgrade costs is about \$2 million). Therefore, the calculations for each of these options were made assuming the total cost of eligible projects is \$163 million. The rule provides a time schedule for compliance depending on the size of the facility; however, to facilitate easier comparisons among options, the average annual cost to implement the rules over the full 10 year period was used, \$16.3 million per year.

Assumptions common to all these options is that feedlot operators will complete the required projects within 10 years (except where stated otherwise) and will take advantage of all available low interest loans before they will use conventional financing or personal resources.

1. No additional state financing

a) Upgrade implementation required only when 75% cost-share assistance is provided and assuming constant state and federal at current funding levels until all feedlots upgraded

This option assumes that the current statute requiring 75% cost share funding be available before MPCA enforcement efforts can be exercised remains in place, the current funding level for the cost-share and loan programs remains unchanged and the farmer will not implement any practice without the full 75% cost-share matching funds. At this funding level (\$4.9 million per year), it would take about 25 years to fully fund the estimated cost-share eligible projects identified in this study.

Table 20. Option 1. a) Upgrade implementation required only when 75% cost-share assistance is provided and assuming constant state and federal at current funding levels until all feedlots upgraded.

Source of Funds	Total Amount for FY 02
State and Federal Cost-share	\$4,902,000
State Loan Programs	\$1,225,500
Other Farmer Contributions	\$0
TOTAL	\$6,127,500

b) Upgrade implementation required regardless of cost-share availability

This option assumes that the current statute requiring 75% cost-share funding be available before MPCA enforcement efforts can be exercised is modified or eliminated, that the current funding level for the cost-share and loan programs remains unchanged and that the farmer is expected to find alternative financing for costs beyond the available funding provided by the state and federal cost-share and loan programs. This option puts the bulk of the implementation expense upon the farmer, with feedlot operations annually using state and federal cost-share of \$5 million, state low interest loans of \$3.1 million and finding private financing for an additional \$8.3 million. Under this option, the average cost share contribution for projects required by the 7020 rule is 30% of the cost-share eligible expenses.

Table 21. Option 1.b) Upgrade implementation required regardless of cost-share availability.

Source of Funds	Total Amount for FY 02
State and Federal Cost-share	\$4,902,000
State Loan Programs	\$3,150,000
Other Farmer Contributions	\$8,248,000
TOTAL	\$16,300,000

2. 75% Cost-share as required under 116.07 subd. 7(p)

Minnesota statutes 116.07 subd. 7(p) requires that 75% cost-share funding be available before the MPCA may take enforcement action against any feedlot operation. Assuming that the intent of this requirement is that cost-share will be available to all projects at 75% of the total construction cost and that all corrective measures will be implemented within 10 years, the state and federal governments assume the greatest burden under this option, providing \$12.2 million per year in cost-share grants (federal cost-share for feedlot upgrade construction is currently \$1.6 million per year). The farmer is responsible for the balance, mostly through state low interest loans, but with some conventional financing or personal resources.

Table 22. Option 2. 75% Cost-share as required under 116.07 subd. 7(p).

Source of Funds	Total Amount for FY 02
State and Federal Cost-share	\$12,200,000
State Loan Programs	\$3,150,000
Other Farmer Contributions	\$950,000
TOTAL	\$16,300,000

3. \$3,000 and \$10,000 deductibles before the calculation of cost-share

This option would require all feedlot operators to contribute either \$3,000 or \$10,000 toward the proposed project before cost-share is provided, as described in 116.07 subd. 7 (p) 1 and 2. This contribution is the equivalent of a deductible and reduces the cost basis from which the cost-share is calculated. By reducing the basis before the cost-share contribution is calculated, it results in a reduction in cost-share need. However, because almost 45% of those feedlots that need upgrading should cost less than \$3,000 to correct, this virtually eliminates over 3,000 projects that are cost-share eligible by requiring the operator to shoulder the first \$3,000 of repair or, for these minor practices, to pay the full cost of repair themselves. This option benefits the least number of operations.

Table 23. Option 3. \$3,000 and \$10,000 deductibles before the calculation of cost-share.

Source of Funds	Total Amount for FY 02
State and Federal Cost-share	\$10,300,000
State Loan Programs	\$3,150,000
Other Farmer Contributions	\$2,850,000
TOTAL	\$16,300,000

4. 50% Cost-share and 50% State funded loans

Another option that was considered assumed that all projects would receive 50% cost-share funding and 50% funding through the state low interest loan programs such as the AgBMP or Clean Water Partnership Loan program. Under this option eligible facilities that remain in operation would receive full financing for required construction upgrades through equal amounts of grant and state low interest loans. Although the feedlot operator would have to repay the low interest loan, the farmer would not have to provide any other financial resources beyond those provide by the state.

Table 24. Option 4. 50% Cost-share and 50% State funded loans.

Source of Funds	Total Amount for FY 02
State and Federal Cost-share	\$8,150,000
State Loan Programs	\$8,150,000
Other Farmer Contributions	\$0
TOTAL	\$16,300,000

5. Current Cost-share funding level with additional funds distributed as loans

In this option, the current level of cost-share was held stable while all new funding initiatives would be directed through the various low interest loan programs. This keeps the state's contribution through the cost-share program to its historical funding level, while the assistance through the loan programs would significantly increase. This option provides full state financing for all required corrective measures with no other contributions by the feedlot operator.

Table 25. Option 5. Current Cost-share funding level with additional funds distributed as loans.

Source of Funds	Total Amount for FY 02
State and Federal Cost-share	\$4,900,000
State Loan Programs	\$11,400,000
Other Farmer Contributions	\$0
TOTAL	\$16,300,000

6. Maintaining historical funding ratios with targeting of priority operations

Cost-share programs allow grants for up to 75% of the cost of eligible projects. However, local Soil and Water Conservation Districts have the authority to set a lower rate for state cost-share funds to better implement local plans and distribute the available funds to the waiting clients. This, in combination with the \$50,000 maximum cost-share grant limit, has resulted in a historical average cost-share level of 50% state and/or federal funds combined with 25% state low interest loans and 25% other farmer contributions. This option assumes that the historical statewide average of 50% cost-share grant, 25% state loan and 25% farm contribution will be maintained, though individual projects may receive more or less funding base on local procedures and priorities. To implement this option, the current cost-share funding level would need to increase by \$3.2 million per year and the loan programs would require an additional \$1 million per year. Farmers must provide \$4 million through conventional loans or personal resources.

Table 26. Option 6. Maintaining historical funding ratios with targeting of priority operations.

Source of Funds	Total Amount for FY 02
State and Federal Cost-share	\$8,150,000
State Loan Programs	\$4,075,000
Other Farmer Contributions	\$4,075,000
TOTAL	\$16,300,000

APPENDIX B. EXAMPLE SURVEY OF COUNTY FEEDLOTS OFFICERS AND SOIL & WATER CONSERVATION DISTRICT MANAGERS

Please fill in the blanks or select the appropriate answer. Then press the SUBMIT SURVEY button and let us hear from you.

Name of person completing this survey

Name of county

a. How many feedlots in your county have had on-site visits or inspections within the last five years? #:

b. Of those inspected, how many would NOT comply with state and local feedlot rules (i.e. the facility has runoff problems; groundwater problems; does not have adequate storage)? #:

c. Of those inspected, how many would require a minor fix-up of runoff controls or simple changes in management (practices would cost less than \$3,000 to implement) to be in compliance? #:

d. Of those inspected, how many would require construction of major runoff control projects (more than \$3,000) to be in compliance? #:

e. Of those inspected, how many would require improvements to their manure storage facility to be in compliance? #:

f. How many feedlots in your county have more than 10 animal units? #:

How would you describe the accuracy of the above numbers?

- I guessed
- Estimates based on professional judgment
- Reliable estimates based on actual inventories and some professional judgment
- Actual inventory data

How many feedlot operations in your county need technical assistance in developing nutrient management plans for their manure?

How many feedlot operations in your county need to upgrade their handling and application equipment to effectively utilize their manure?

Please include your comments about this survey or suggestions about what should be addressed in the Feedlot Financial Needs Assessment in the space provided below.

Thank you for taking the time to complete this survey.

APPENDIX C. GOVERNOR'S 2002-2003 FEEDLOT BUDGET INITIATIVE SUMMARY

The Minnesota Pollution Control Agency (MPCA), the Minnesota Department of Agriculture (MDA) and the Board of Water and Soil Resources (BWSR) developed a funding package for the Governor's 2002 – 2003 budget that will assist livestock producers in complying with feedlot rules. This package addresses the needs of a targeted category of livestock producers for making environmental improvements in their feedlot operations and provides better customer service by state government to feedlot owners. Specifically, the Governor's proposal provides funding for cost-share and low-interest loans to targeted livestock producers for environmental upgrades, engineering assistance, and planning and assessment assistance. In addition, increased funding is provided to counties and the MPCA for permitting activities.

Financial Assistance to Producers

This interagency package of funding initiatives is targeted to assist livestock producers to comply with state feedlot rules. Currently, annual state and federal cost-share assistance provides about \$3.2 million in low-interest loans and \$4.9 million in grants for feedlot upgrades, which helps about 300 feedlots per year. Historically, state cost-share funding has, on average, covered about 50% of upgrade costs, even though up to 75% of upgrade costs are eligible for cost-share assistance. The Governor's new funding initiative provides a targeted approach to provide additional assistance to feedlots with between 300 and 500 animal units during the FY 2002-03 biennium. This category of producers was targeted because they must comply with the rules in a shorter period of time and because of the relatively high level of economic uncertainty for producers in this size category. Current levels of financial assistance would continue to be available to producers in other size categories. This initiative is based on option number 6 considered by the interagency team.

According to a recent MDA report mandated by the Legislature, Minnesota has approximately 38,468 livestock operations, with 24,300 required to register under the new state feedlot rules. About 7,100 feedlots would require upgrades to comply with these rules. The Governor's proposal would provide increased state financial assistance, targeted to feedlots with between 300 and 500 animal units. These feedlots do not have the option for interim upgrades that extend the deadline for full rule compliance until 2010 that is available to feedlots with less than 300 animal units. Eligibility for state feedlot cost-share is limited to feedlots with less than 500 animal units. Assuming the same historical 50% average cost share rate (with eligibility up to 75% remaining unchanged), this initiative would help approximately 60 additional producers comply with the feedlot rules annually, bringing the total number of feedlots assisted in this size category, including current funding, to 150 per year. The agencies will continue to reevaluate the estimates of state financial assistance needs for livestock producers as the registration and permitting processes under the updated rules are implemented. This will result in updated recommendations for funding for future budgets.

The Governor's Initiative to provide financial assistance to producers includes the following:

Annual Amount	For	Funding Source
\$700,000	Feedlot cost-share through BWSR	MPCA – Clean Water Partnership
\$500,000*	Feedlot cost-share through BWSR	BWSR – Regular State Cost-Share Program
\$350,000	Feedlot Low-interest loans through MDA	General Fund

*This is not new funding. It represents existing regular cost-share funding to be dedicated to feedlots for 2002-2003 biennium.

The Governor's Initiative also provides for the following planning and engineering financial assistance to provide better customer service to feedlot operators:

Annual Amount	For	Funding Source
\$113,000*	Feedlot engineering assistance through BWSR	BWSR – Nonpoint Engineering Assistance Program
\$140,000	SWCD engineers and technicians through BWSR	General Fund
\$175,000	Planning assistance to producers through MDA	MDA – Dairy Diagnostics

*Existing Nonpoint Engineering Assistance Program funding to be dedicated to feedlots for 2002-2003 biennium.

Regulatory Service Improvement

The Governor's proposal also includes funding to expedite the feedlot permitting process. Current law requires the MPCA to process feedlot permits in 60 days or the permits will automatically be approved. The registration and permitting requirements of the new feedlots rules require increased field presence by MPCA staff and regulatory partners. Therefore, the Governor's package includes funds for nine additional regulatory assistance staff at MPCA and an increase in funding for county-level regulatory programs. The Governor believes that this additional staffing will result in more efficient permitting and better service.

The Governor's initiative to provide improved service from regulatory agencies to producers includes the following:

Annual Amount	For	Funding Source
\$535,000	County feedlot program grants through BWSR	MPCA – Clean Water Partnership
\$725,000	MPCA feedlot regulatory assistance staff	General Fund