

MAINE STATE LEGISLATURE

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**REPORT TO THE MAINE LEGISLATURE
On the
IMPLEMENTATION OF THE NUTRIENT MANAGEMENT PROGRAM**



February 15, 2008

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Maine Department of Agriculture, Food & Rural Resources

Division of Animal Health & Industry

EXECUTIVE SUMMARY

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In accordance with 7 MRSA §4213, this report is presented to the Joint Standing Committee on Agriculture, Conservation and Forestry. It describes the status of the Nutrient Management Program and the development and accomplishments of the program.

The purpose of the Nutrient Management Program is to address non-point source pollution from agriculture, as well as point sources from “concentrated animal feeding operations” (CAFOs) by promoting best management practices on Maine's farms and by ensuring their implementation through a variety of efforts. Development and implementation of Nutrient Management Plans requires specialized technical assistance and knowledge. There are 180 Certified Nutrient Management Planning Specialists in Maine to prepare and certify Nutrient Management Plans, of which 636 are in place covering 131,897 acres and 99,728 animal units. During 2007 and early 2008, eight training events were approved by the Department for a total of 32 nutrient management recertification credits. These programs were held either in conjunction with the University of Maine Cooperative Extension (UMCE) and/or the Natural Resources Conservation Service (NRCS), or independently by the Department. In addition, there were monthly on-line classes through the Livestock and Poultry Environmental Stewardship Curriculum each worth one credit. (It appears that not many people are taking advantage of these on-line classes at this time.) Among the events offered was a two day bus tour of anaerobic digesters in Vermont with presentations on farms’ experiences with digesters and information on utility involvement, support by state agencies and participation by consumers in a ‘green power’ program that all contributed to their success. Other notable training events included a two day training session for Agricultural Service Providers, a certification workshop offered by UMCE and eight presentations given at the Agricultural Trades Show in Augusta on a variety of subjects.

During 2005, the legislature reinstated the Nutrient Management Coordinator position and a new coordinator was employed in October of that year. Reinstatement of this position was essential to keep important aspects of the program moving forward.

Probably one of the more significant aspects of the Nutrient Management Law is the financial burden placed on farmers with its implementation. To mitigate this impact, a Nutrient Management Grant Program was established to help farmers comply with the Nutrient Management Law. Subsequently, the 119th Legislature appropriated \$2.5 million to provide farmers with funding for manure storage and handling systems. In 2002 and again in 2003, voters approved an additional \$2.0 million and \$1.0 million, respectively, for funding additional projects. To date, 119 farms in 12 counties have been awarded grants on a cost-share basis. An additional grant program, Phase II Supplemental, was initiated in October 2006. Details of this program will follow in this report. Unfortunately, sufficient grant funds are not available to meet all needs.

The Nutrient Management Loan Program provides farmers with low-interest (2%) loans when grant funds must be supplemented to cover the cost of a project, or when a project is not eligible for a grant. The Loan Fund has been poorly utilized for reasons to be explained below, and changes to this program to allow funding for resolving a broader array of environmental issues were proposed in 2006. Revisions to Maine’s tax laws allow farmers to exempt manure storage structures from property taxes, as well as to take a sales tax exemption on materials used in construction of manure storage or handling systems. These tax provisions are not well known, are underutilized and should be promoted aggressively.

Concentrated Animal Feeding Operations (CAFOs) must comply with federal and state regulations and, if required, obtain a combined Livestock Operations Permit/Maine Pollutant

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Discharge Elimination System (LOP/MEPDES) Permit from the Department of Agriculture and the Department of Environmental Protection (DEP). Seven farms have been inspected and issued Provisional Livestock Operations Permits, however, these provisional permits now have expired. Recent estimates indicate that approximately 60 farms may require LOPs. It is likely that many of these farms will not require a MEPDES permit. Three Maine farms underwent "CAFO" inspections in late 2005 and 2006 by the Environmental Protection Agency (EPA), the Maine Department of Environmental Protection (DEP) and the Maine Department of Agriculture. The EPA plans to conduct three or more inspections during 2008. Although the specific farms to be inspected have not been finalized, it is likely that the list will include at least one poultry and two large dairy operations. Since Environmental Protection Agency rules regarding permitting of livestock facilities are evolving, this will require additional coordination between the Department, DEP and EPA.

Reinstatement of the Nutrient Management Coordinator position is keeping all aspects of this program moving forward. "The Nutrient Management Rules" and nutrient management-related "Rules for the Disposal of Animal Carcasses" require updating. The "Rules for the Agricultural Compliance Program" have been completed, and public hearings were held in January 2007. The rules were finally adopted in May, 2007. Training and certification of Nutrient Management Planning Specialists must continue. Follow-up on Phases II, II Supplemental & III of the Nutrient Management Grant Program, the Loan Program, tax exemption provisions and other aspects of this program, is essential. A new initiative, establishing and implementing a Phase IV Nutrient Management Grant Program is underway, but will continue to require a substantial investment of time and personnel resources.

Rapidly changing policy positions by EPA and USDA's Natural Resources Conservation Service (NRCS) continue to require close scrutiny by the Department. Changes in Environmental Quality Incentives Program (EQIP) rules, whereby funding of projects may be based on "Total Maximum Daily Load" (TMDL) criteria, might target benefits to certain high-priority watersheds thereby excluding others that also have urgent needs. In addition, it is unknown whether EPA's evolving rules regarding CAFOs and AFOs (Animal Feeding Operations) will lean toward more enforcement activities or toward a more enlightened approach of providing enhanced technical assistance. Moreover, our long-standing federal partner for providing technical support, USDA's NRCS, is placing more emphasis on privatization of technical assistance rather than providing it by their own employees. Private Technical Service Providers (TSPs) have been available for writing Comprehensive Nutrient Management Plans (CNMPs), and for other projects, with funding from USDA's Environmental Quality Incentives Program (EQIP). Recently, NRCS has stated that funding is not likely to be available for updating CNMPs when they expire or become outdated due to changes in the farm operations. In addition, at the present time, budget analysts have noted reduced funding for many conservation programs in the 2007 federal "farm bill". Consequently, the decreasing availability of technical specialists for applying conservation practices to the land is a trend that must be reversed through on-going work and vigilance by this Department.

BACKGROUND

The Nutrient Management Law, originally passed in 1998, required the Department of Agriculture to establish rules for conducting a Nutrient Management Program and to adopt standards for Nutrient Management Plans. These actions were completed by December 15, 1998

and were ratified by the Legislature the following Spring. In addition, amendments to the Nutrient Management Law were made in 1999, 2001 and again in 2002. These were necessary as the development of the program required additions to the rules to describe specific processes or simply to correct or change the existing rules to better reflect how the program was working in reality.

These changes included giving the Commissioner the authority to revoke certifications and permits and to issue provisional permits for certain livestock operations. They also included tax exemptions for manure storages, appeals processes, and defining nutrient management plans as confidential business information. However, recently proposed Rules by EPA may require certain sections of CAFO nutrient management plans to be available for both EPA and public review. The most recent changes were added to define the recertification process for Nutrient Management Planning Specialists.

After the rules were approved, the Department began implementation of the various elements of the program based on the timeline set in legislation. The primary areas of implementation were the training and certification program for Nutrient Management Planning Specialists, establishment of the Nutrient Management Review Board, issuance of variances, enforcement of the winter spreading ban and the establishment of a permitting program. In addition, it was necessary to develop a data management system (now in the process of being modified), to identify funding sources for manure storages, and to negotiate agreements with the Maine Department of Environmental Protection (DEP) about how the Nutrient Management Program would interface with DEP programs that had overlapping or similar jurisdictions. All these important components of the program have been successfully addressed, and ongoing efforts continue to identify areas of the program requiring modifications to meet future goals.

IMPLEMENTATION/ONGOING EFFORTS

The implementation of the Nutrient Management Program truly is being accomplished through a partnership approach. Many players have roles in making the various pieces of the program work. The Department of Agriculture has, of course, taken a leadership role in developing and coordinating the different components of the program. The University of Maine Cooperative Extension (UMCE) has had a primary role in conducting certification training workshops for consultants, farmers and agency people. They also have worked in concert with the Department to develop the outline of a nutrient management plan and guidance materials to assist planners who develop plans.

The University of Maine Cooperative Extension completed a project in 2005 that developed and adopted integrated cropping and livestock production systems on small and mid-size family farms. Environmentally sound manure management was a key component of this research and extension project. The integrated system encouraged within-farm diversification or across-farm cooperation where farmers with individual crop and livestock enterprises shared a land base, labor, equipment or other capital, and exchanged plant nutrients, primarily animal manure, for feed crops. Projects in Maine emphasized cooperation between dairy producers and potato growers, and primarily involved the adoption of more crop rotation practices. The potato farmers utilized manure from dairy operations to offset fertilizer needs and add organic matter to their cropland soils, while dairy farmers were able to rotate corn onto potato land at appropriate time intervals. The success of this experiment is providing opportunities for a substantial

number of small and mid-size farms with specialized production systems that now benefit from implementing additional, financially beneficial and environmentally sound practices.

The project spanned three years and involved the collaboration of ten institutions across three states with participants from eight different disciplines. The three states (Iowa, Maine and Michigan) represented the Northeast, the Mid-West and the Great Lakes regions of the country. Knowledge gained and farmer adoption experience from this project is applicable to a significant portion of the U.S. agricultural sector.

The USDA Natural Resources Conservation Service (NRCS) continues to be a strong partner by having many of their professional staff trained and certified for preparing CNMPs. During the early development of this program, NRCS provided a liaison person to work with the Department on technical aspects of the program. NRCS also assisted the department by providing technical assistance for the very successful Nutrient Management Grant Program during Phases I, II, and III, and the ongoing Phase II Supplemental. Additionally, they have worked closely with Department staff incorporating the requirements of the State's Nutrient Management Law and Rule into the NRCS requirements for Comprehensive Nutrient Management Plans. This dialog continues.

The UMCE county offices and the Soil and Water Conservation Districts (SWCDs) have hosted workshops and training sessions and have been the front line delivering information to farmers throughout the state. The Maine Department of Environmental Protection (DEP), the Finance Authority of Maine (FAME) and the Maine Municipal Bond Bank all have been partners with the Department putting together and administering the Nutrient Management Loan Program. The private sector also has taken an interest in the program. Several private firms have trained individuals to write and certify nutrient management plans to assist farm operations that need Livestock Operations Permits or guidance with the Nutrient Management Grant Program. Without the commitment and hard work by so many individuals and agencies, it would not be possible to continue implementing such a far reaching program. The main components of the program are described below, with recent achievements included for each of them.

Grant Received to Conduct a Survey of Best Management Practices (BMP) Adoption

The Department has a commitment to study the rate of adoption of BMPs by Maine Farms. This was included as part of the statewide strategy for reducing non-point source pollution. In 2003, the Department applied for and received a grant for \$50,000 from the Coastal Zone Management Program through the State Planning Office (SPO). Field data collection for this project began in 2004 and is in progress. Data evaluation and a progress report will be completed as soon as possible. This project will allow the Department to evaluate the extent of adoption of various BMPs on selected Maine farms, to assess the effectiveness of some of them and to focus future programs and policies on reducing non-point source pollution from agriculture.

Update of the Nutrient Management Law and Rules

In 2001, the Department proposed and adopted amendments to the Nutrient Management Law and Rules to enable the Commissioner to issue variances on the implementation dates of the Nutrient Management Law. The Nutrient Management Rules also have been amended through rulemaking to reflect changes made to the Nutrient Management Law, and include the process by

which the Commissioner can issue variances on Nutrient Management Law implementation dates. Other changes included in the rules were an appeal process for variances, a process for revocation of Nutrient Management Planner Certification and revocation of full or provisional Livestock Operations Permits, and some changes on Concentrated Animal Feeding Operations (CAFO) designation. Rulemaking in 2002 added a recertification process enabling Certified Nutrient Management Planning Specialists to acquire recertification credits and keep their certification valid.

The Nutrient Management Rules again need to be updated based on legislative changes adopted in 2003, and on other recently identified concerns. These updates must include changes in the status of compost and other soil amendments as they relate to the Nutrient Management Law. In addition, a number of inconsistencies between the law and rules have been identified over time and need to be corrected at the time of the next rulemaking.

Nutrient Management Planner Training and Certification

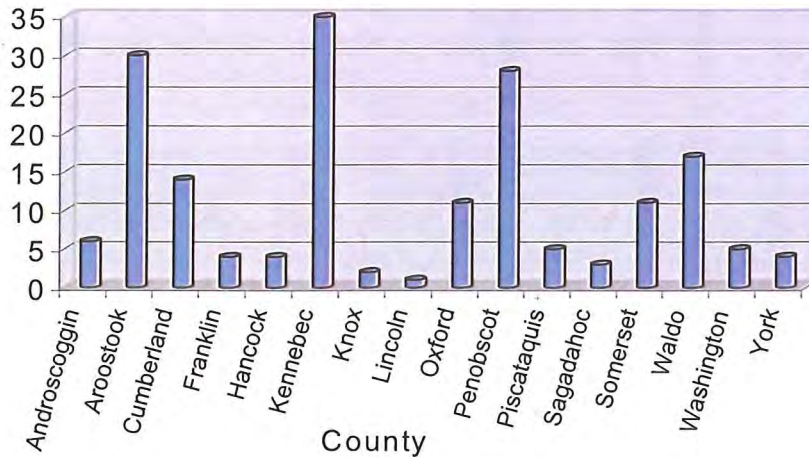
An important component of the Nutrient Management Program is the availability of Certified Nutrient Management Planning Specialists (CNMPS) who can prepare and certify Nutrient Management Plans for Maine's farming community.

The University of Maine Cooperative Extension has made a major commitment to develop and deliver training sessions to prepare farmers, consultants and agency people for this certification. There are two categories of certification, a private one for farmers who want to prepare and certify their own plan and a commercial/public one for people who want to be able to prepare and certify plans for anyone requesting it. Certification as a Nutrient Management Planning Specialist requires that an individual pass a certification exam administered by the Department. Applicants who do not pass the exam are allowed to retake it three weeks after failing the original exam. Once an applicant has passed the exam, he/she is issued a certificate that is valid for five years.

The number of certified people is summarized in Figure 1. Of the 151 people who have passed the exam, 59 are farmers and the remaining 92 are either agency personnel or private consultants. There are an additional 29 people who qualify as Nutrient Management Planning Specialists because they have been certified by the American Agronomy Society as Certified Crop Advisors (CCAs) or by other organizations. This makes a total of 180 people who are qualified to write and approve nutrient management plans in this State. This number has increased in the last year with 8 new commercial/public planners and two new private planners becoming certified in 2007. We may also see an increase in the number of private certifications from farmers who had their initial plans prepared by a commercial planner, but want to get certified to update and recertify their plan themselves.

The Department keeps a record of Certified Nutrient Management Planning Specialists per county, as detailed in Figure 1. There is a concentration of certified planners in Kennebec, Aroostook and Penobscot Counties. Each of these counties has 25 or more persons certified to prepare Nutrient Management Plans.

Figure 1: Geographic Distribution of Certified Nutrient Management Planning Specialists



Recertification Process

The recertification process is the logical continuation of the initial certification process described above. The intent is to have the planners attend events on topics relating to Nutrient Management issues, to expand their knowledge and keep them updated on new research and development. Nutrient Management Planning Specialists that are certified through the State of Maine need to acquire 6 recertification credits per 5 years for a private license and 10 recertification credits per 5 years for a public license.

The Department has put in place a process that enables planners to receive credits for approved events, and for events to be considered for recertification credits. The process to request recertification credits, some informational flyers and the database used to keep track of the credits, have been developed and now are being used. The rulemaking to formalize the process was completed, and the amended rules were formally adopted in May 2002.

Winter Manure Spreading Ban and Variances

The ban on winter manure spreading is effective December 1 of a calendar year through March 15 of the following calendar year. This prevents spreading during the time of the year when the potential for nutrients to reach water bodies is at its greatest.

The Department received only 2 requests for variances for the winter of 2002-2003. Both of these requests were approved and both were for a limited time to allow the manure level in a pit to be lowered to ensure that the pit would have sufficient capacity to get through the winter. This number of variance requests was significantly fewer than the 15 approved in 2001-2002. The number of winter spreading variance requests increased dramatically in 2003-2004 to 75. This was greater than the total number of requests for the three previous years. The increase occurred as a result of the unusually wet fall, which prevented many farms from getting equipment onto fields and prevented them from lowering manure storages enough to be able to accept the amount of manure that would be generated during the winter months. Many of these farms were

able to get onto their fields for the first time in months just before the ban went into effect. Most of them needed several days of additional time to lower their storages sufficiently to get through the ban period. This startling increase in the workload at a critical time of the year put a severe strain on the Department personnel reviewing and approving requests. This was exacerbated by the fact that NRCS was unable to assist in the process. The result was that the normal process for issuing variances had to be abbreviated. Had a mechanism been in place that would have allowed the Commissioner to move the spreading ban date ahead about two weeks when extreme conditions warrant it, this situation could have been handled much easier. The Nutrient Management Review Board, however, decided that the present system is working satisfactorily and, therefore, a Rule change was not needed at that time.

The 2004-2005 season enjoyed drier field conditions which resulted in 0 variances requested. In contrast, the spring and fall seasons of 2005 exhibited excessive rainfall making most field activities, particularly the emptying of manure storage facilities, generally impossible. Consequently, during the winter of 2005-2006, 65 variances were granted that allowed spreading until December 31, 2005. Several producers were granted brief extensions for spreading into early January 2006. Two requests were denied because criteria established for granting a variance were not met in these situations. The spring, summer, fall, and early winter seasons of 2006-2007 manifested some of the heaviest rainfall on record resulting in extremely wet and soft field conditions. These ubiquitous, wet field conditions, coupled with unseasonably warm temperatures and no permanently frozen ground until mid January 2007, prohibited many farms from emptying manure storage facilities prior to the winter spreading ban period. Consequently, the largest number of requests to date, 83 spreading variances and, subsequently, 15 extensions for spreading into January 2007, and 3 extensions into February were granted. Two requests were denied because criteria established for granting a variance were not met by these farms.

Throughout 2007, the compliance officers tried to visit as many farms who had requested spreading variances as possible. The purpose was to see how they were planning to avoid the need for variances in the future. The visits encouraged farms to focus on timely spreading and advance planning.

The summer and fall of 2007 proved to be more conducive to field work in general, which allowed most farms to empty their storages before the winter spreading ban period. As a result of the better weather conditions and the additional effort to raise awareness, only four farms sought and received variances to spread beyond the December 1 deadline. Deep snow conditions eventually ended spreading activities. Some field stacking continued as a way to divert manure from storages that still had insufficient freeboard to make it through the winter.

Nutrient Management Plans

The mandatory Nutrient Management Plan is a key element of the Nutrient Management Law. A Nutrient Management Plan is a management tool designed to evaluate the amount of nutrients needed compared to those available on a farm. The plan also includes setbacks from sensitive resources and existing uses, erosion control best management practices (BMPs) and provisions for manure storage for a minimum of 180 days production of manure.

A farm operation is required by legislation to develop and implement a Nutrient Management Plan if:

the farm confines and feeds 50 animal units or more at any one time
the farm stores or utilizes more than 100 tons of manure or compost per year, not generated on that farm
the farm is the subject of a verified complaint of improper manure handling (i.e. checked and confirmed by the Department of Agriculture) or
the farm stores or utilizes regulated residuals

Nutrient Management Plans for most farms had to be completed and approved by January 1, 2001. The Department issued 40 variances on the completion date of January 1, 2001, mostly because of the high volume of plans our cooperators (SWCD, NRCS) had to complete on or around the deadline.

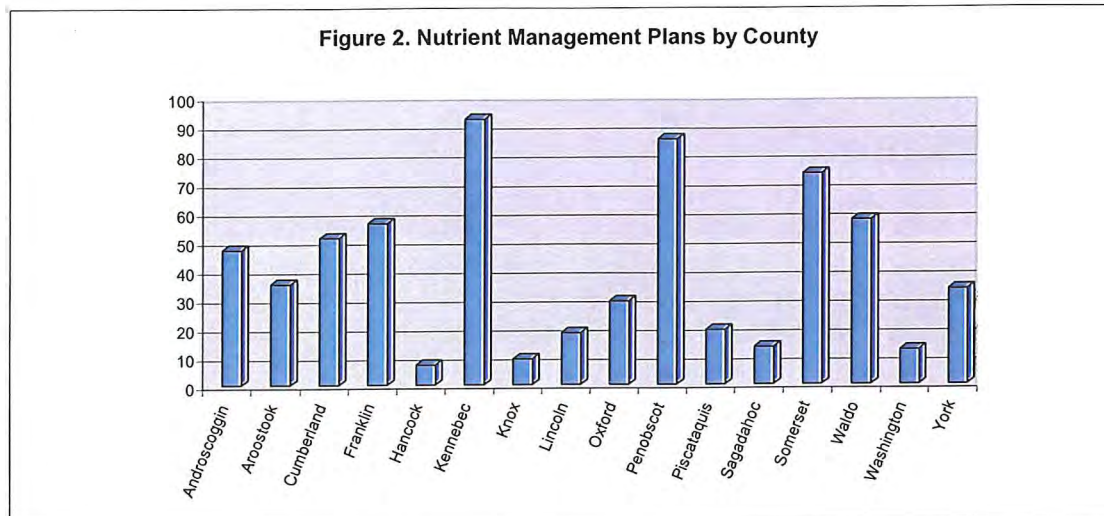
As of September 2001, three farms were known to be operating without a plan or a variance. Later that fall and into 2002, the Department and the Nutrient Management Review Board took steps that resulted in two of these farms voluntarily coming into compliance. One operation remained out of compliance until the fall of 2002, when enforcement actions were sought. The situation was resolved in court.

Farmers had until October 1, 2007 to fully implement their plans. This time span between development of a plan and full implementation allowed farmers to arrange financing, buy equipment and build or upgrade storage and handling systems that were needed to implement the plan. It was expected that those parts of the plans that did not require structural changes or major investments would be implemented as soon as the plan was approved. The time frame for full implementation of plans completed after the October 1, 2007 date has not been established either by legislation or rule. The Nutrient Management Law will need to be amended to remove the past implementation dates and to establish a time frame for implementation of new plans. One logical scheme would be to require implementation of provisions of the plan that do not require capital investment within six months while those requiring capital investment may take 12 to 18 months to fully implement.

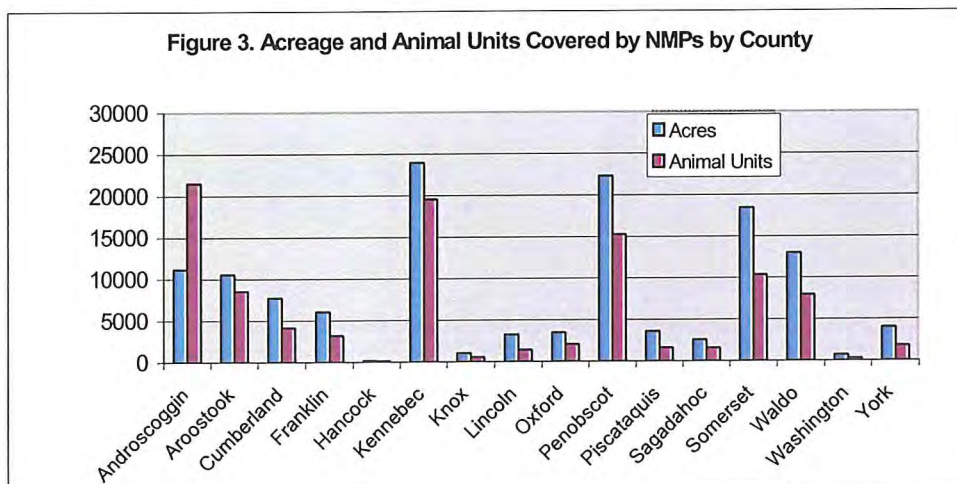
Since many of the State's Nutrient Management Plans were developed in 2001 and are valid for five years, many plans required updating and recertification in 2006. This presented a challenge to certified planners for updating these plans in a timely manner. Consequently, 66 variances to nutrient management plan development were granted to keep the farmers in compliance with the Nutrient Management Law and to maintain their Right-to-Farm protection while their plans were being updated. Many of these plan updates were completed in 2007. Between those updated and the new plans prepared, there were 114 plans certified in 2007. Those plans covered 24,288 acres of farmland and 14,385 animal units.

The development and implementation of Nutrient Management Plans is expected to result in a more effective use of nutrients, including manure, on agricultural land, and a reduction in the impact of nonpoint source pollution associated with agricultural operations on water quality.

There are currently 636 Nutrient Management Plans in place throughout the State, and Figure 2 shows how these plans are distributed. Of these plans, 408 are up to date and 228 need to be updated. Among this latter group are about 45 to 50 'farms' that only had nutrient management plans in order to accept residuals or manure from other sources. Note that the number of Certified Nutrient Management Planning Specialists in Figure 1 has a similar distribution, indicating that there are more planners in the areas with the greatest need.



The 636 plans cover a total of 131,897 acres and 99,728 animal units, where one animal unit is equal to 1,000 pounds live weight. Figure 3 shows how these totals are distributed throughout the



counties. An interesting point here is the number of animal units and acreage managed under Nutrient Management Plans in Androscoggin County. Since manure production from the number of animal units in this county exceeds the land base for spreading, some of the nutrients produced have to be exported to other counties to be utilized, where there are suitable soils that need those extra nutrients. This illustrates how the information from Nutrient Management Plans may provide information needed for planning purposes. On a local scale, the farmers can make an informed decision on how and where to utilize the nutrients to minimize the impact on water quality. On a larger scale, the areas with a deficit of nutrients can be compared to those with excess nutrients to determine the potential for moving nutrients to those areas that need them.

FINANCIAL ASSISTANCE

To comply with the winter manure spreading ban described in the Nutrient Management Law, producers either need to have a manure storage facility that meets the requirements of the Department or have identified suitable stacking sites where manure can be stored until it can be spread. These requirements have placed a significant financial burden on some Maine farmers. For this reason, the Department of Agriculture helped develop a Nutrient Management Grant Program and a Nutrient Management Loan Program, intended to help farm operations comply with the Nutrient Management Law.

Nutrient Management Grant Program

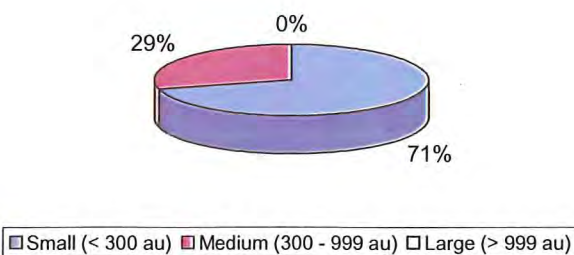
The purpose of this program is to help Maine farmers comply with the Nutrient Management Law by providing cost sharing for manure storage and handling systems. This program has been implemented in three major phases plus a supplemental phase and a fourth phase is proposed, all of which are discussed below:

Phase I - Nutrient Management Grant Program

The Nutrient Management Grant Program funds for Phase I were appropriated by the 119th Legislature. A total of \$2.5 million was allocated to facilitate the construction of new or retrofitting of existing manure storages and handling facilities on Maine's farms. The Department received a total of 145 proposed projects, with a total cost for all projects submitted of \$15.4 million ranging from \$5,500 to \$1.19 million per project. Some projects were not eligible to receive 100% funding as they exceeded the maximum allowed reimbursement because certain equipment requested was ineligible. Low-priority projects, although potentially environmentally beneficial, could not be funded.

Of the \$7.3 million in grant requests for approvable projects, the Department was able to fund just over \$2.3 million. The amount available covered only one third of the total requested amount for that round of funding. As a result, the Department sought additional funds to expand the grant program and was successful in getting \$2.0 million approved as part of a bond package. This was used to establish the second round of grants (identified as Phase II to distinguish it from the original round of grants).

Figure 4. Grantees by Size of Operation



Phase II – Nutrient Management Grant Program

The Phase II process was similar to Phase I in that an RFP was issued, grant proposals were accepted and a review and ranking process was followed. The applications were reviewed, prioritized and recommended for funding by the Nutrient Management Review Board. Funding was committed to

44 projects in Phase II. Five grantees have declined the funds that were earmarked for their projects. The funds that were declined equaled \$299,745, and were reallocated to the Phase II Supplemental grant program discussed below. Since then, 32 farms have completed construction

and requested their funds, one has initiated construction and received partial payments, and three have not requested any funds. (see Table 1 below). According to the contracts for the projects, all the projects had to have been completed by a certain date. Since these four projects had not been completed and no extension was requested, the contracts expired. The farms subsequently received letters indicating that the funds were no longer available for the projects. The Department will be contacting the next farms on the list of Phase II Supplemental applicants to determine if they still need funds for their projects.

Figure 4 shows the distribution of projects under Phase II according to the size of operation, where one animal unit (AU) is equal to 1,000 pounds of live animal body weight. Twenty-nine of the funded projects were on smaller farms (<300 AU), while 12 projects were on medium size (300 – 999 AU) farms. There were no projects on large operations in this round of grants. This distribution is similar to that observed for Phase I, which had 26 on small farms, 12 on medium farms and two on large farms. In Phase II, almost \$1.1 million (57%) in funding went to small farms and the remaining 43% went to medium size farms. Again, no funds were awarded to large farms in this round.

Phase III Nutrient Management Grant Program

In November 2002, Maine voters approved another bond issue that contained \$1.0 million for the Nutrient Management Grant Program. These funds are being used to provide grants under Phase III of the program. Due to changes in the NRCS EQIP rules and policies, a number of changes were made to the Phase III Program to make the two programs work together efficiently. The Nutrient Management Review Board and Department staff met several times with NRCS to discuss changes to the EQIP program in order to develop recommendations on any changes that were needed for Phase III.

Among the changes recommended were:

- *Increase the percent of cost share from 75% to 90%
- *Increase the maximum amount of Nutrient Management grant funds for any project from \$100,000 to \$125,000.
- *Give equal weight to requests for solid and liquid systems.
- *Allow innovative systems for managing manure to qualify for the program.
- *Allow construction of compost pads.
- *Restrict applicants to those who do not have a valid contract for a Nutrient Management Grant.
- *Place more emphasis on environmental benefits in the ranking system.
- *Give some credit to those who are willing to invest larger share of their own money into the project in the awarding of points in the ranking system.
- *Rearrange the application form to make it clear which costs are eligible for funding under this program and which are not.

The RFP for Phase III of the Nutrient Management Grant Program was announced in December 2003. The signup period extended from January 1 to February 13, 2004. During this time, the Department received 29 applications for Phase III grants. These applications were reviewed by a subcommittee of the Nutrient Management Board, rated according to criteria set out in the RFP and ranked in order of priority for funding. Funding was committed to 21 projects for a total planned expenditure of \$1,276,639. Twenty projects have been completed, while 1 farm has

begun its project and received partial payments. One farm declined the funds that were allocated for its project, \$125,000.

Eighteen funded projects were on smaller farms (<300AU), while 3 projects were on medium size farms (300-999AU). A larger percentage (86%) of Phase III farms was in the small farm category than was the case in Phase II, which was 71%. Medium size farms comprised only 14% of the Phase III total compared with 29% for Phase II. \$1,023,815 was allocated to small farms, while \$252,824 was designated for medium size farms. Seven of the State's counties were represented in Phase III, and corresponding funds awarded are depicted in Table 1.

Grant funds awarded for Phases I, II, III and Phase II Supplemental are summarized in Table 1. It should be noted that the grand total of grant funds awarded in Table 1, \$6,110,030.00, is inconsistent with the amount of funds appropriated from the general fund and from bonding, which was \$5,500,000.00. The reason for this apparent inconsistency is that of these funds, \$610,030, were not utilized by some recipients in earlier phases and were reallocated.

Table 1. Grant Funds Awarded by County

County	Phase 1	Phase 2	Phase 3	Phase 2 Supplemental	Phases 1, 2, 3 & 2 Supplemental
<i>Androscoggin</i>	\$267,993.00	\$125,760.00	\$261,500.00	\$80,000	\$735,253.00
<i>Aroostook</i>	\$160,200.00	\$406,639.00	\$275,015.00	\$74,338	\$916,192.00
<i>Cumberland</i>	\$26,920.00	\$35,000.00			\$61,920.00
<i>Franklin</i>	\$88,000.00	\$196,196.00	\$211,406.00		\$495,602.00
<i>Kennebec</i>	\$500,762.00	\$129,600.00	\$124,509.00		\$754,871.00
<i>Knox-Lincoln</i>	\$19,868.00	\$58,767.00		\$40,000	\$118,635.00
<i>Oxford</i>	\$295,238.00				\$295,238.00
<i>Penobscot</i>	\$571,257.00	\$379,362.00	\$218,535.00	\$120,561	\$1,289,715.00
<i>Piscataquis</i>	\$198,594.00			\$19,400	\$217,994.00
<i>Somerset</i>	\$188,781.00	\$265,662.00	\$168,906.00	\$11,350	\$634,699.00
<i>Waldo</i>	\$92,617.00	\$266,660.00	\$16,768.00	\$19,350	\$395,395.00
<i>York</i>	\$89,770.00	\$45,000.00		\$40,000	\$174,770.00
Totals	\$2,500,000.00	\$1,908,646.00	\$1,276,639.00	\$424,745	\$6,110,030.00

Finally, the distribution of projects throughout the state for Phases I, II and III is depicted in Figure 5, while the distribution of funds is displayed in Figure 6. Note that Aroostook County had the most projects funded (12), while Waldo, Penobscot, Somerset and Franklin were close behind with 10,10, 9 and 8 projects, respectively. The distribution of funds around the state was similar but not identical to the distribution of projects. Aroostook County was awarded 21 % of the funds, while Penobscot, Somerset, Franklin and Androscoggin received 19%, 14%, 13% and 12 %, respectively. It is interesting to note that, while Waldo County scored near the top in terms of number of projects, it garnered only 9% of the funds. This is a reflection of individual project size and, generally, indicates the magnitude of farm manure storage requirements.

Although they are not depicted in Figures 5 and 6, the awards from Phase 2 Supplemental alter the distribution of funds slightly as Penobscot, Androscoggin and Aroostook Counties received the largest shares in this round of funding.

Figure 5

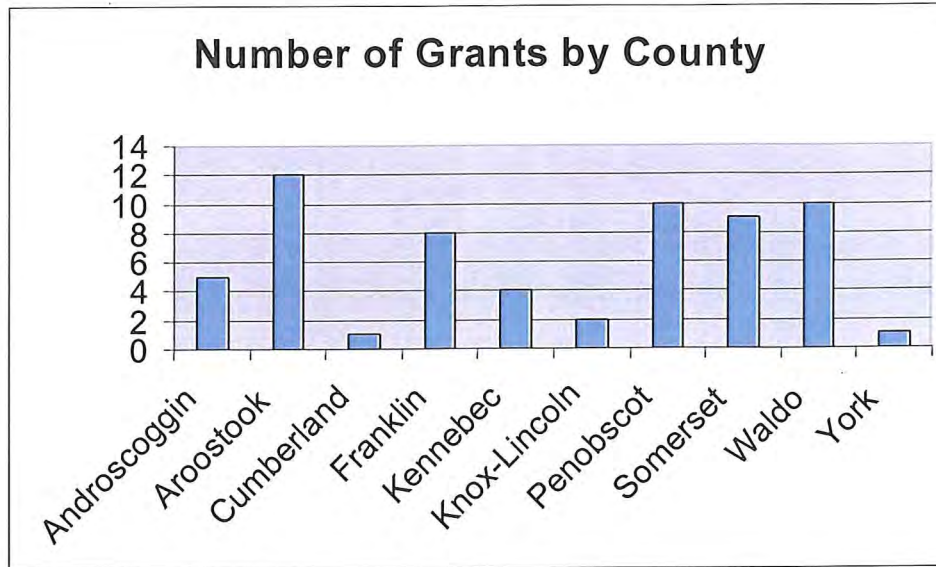
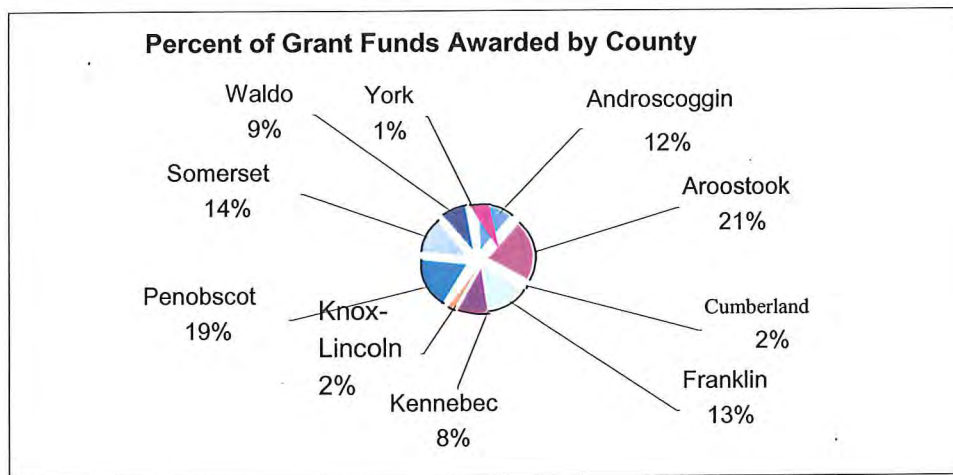


Figure 6



[Phase II Supplemental Nutrient Management Grant Program](#)

During mid 2006, it was determined that some monies in the Phase II and Phase III programs would not be utilized as planned. This was the result of the farmers' going out of business, completing their project under budget, or canceling their project. Consequently, \$424,745 became available for funding additional projects. This "new" grant program was called "Phase II Supplemental" in recognition of the fact that most of these funds originated from the earlier Phase II program. The Nutrient Management Review Board decided that projects funded under Phase II Supplemental should attempt to resolve environmental problems of either immediate or long-term concern, and that eligibility for funding be expanded to include a broader array of projects than had been the case in the past. Accordingly, a "request for proposals" was issued that included a listing of eligible projects, applicant eligibility criteria, and criteria for prioritizing funding of projects. The application period was October 1 through November 17, 2006. Fifty-seven applications were received, which far exceeded expectations, and many farmers, mindful of the small amount of funds available, decided not to apply for a grant. These 57 proposals

represented \$3.4 million in total project costs. Grant funds requested equaled \$1.8 million, with only \$424,745 available for disbursement from Phase II Supplemental. A sub-committee of the Nutrient Management Review Board reviewed each proposed project, evaluated it based on previously established criteria, prioritized the projects, and selected 15 grantees. The full Nutrient Management Review Board and the Commissioner approved the sub-committee's selections for funding. These projects are located in nine Maine counties from York to northern Aroostook. The grant totals from Phase 2 Supplemental for each county are listed in Table 1. Department staff met with these farmers and NRCS personnel for reviewing construction of these projects and for contract initiation. Given the number of applicants for this small pool of funds, there appears to be an enormous need for funds to resolve nutrient management and environmental concerns.

Proposed Phase IV Nutrient Management Grant Program

Despite accomplishments realized from the previous Nutrient Management Grant Programs and from other projects, many farms in Maine, whether small, mid-size or large, continue to have nutrient management-related problems that must be addressed. At this time, NRCS is estimating the average cost per livestock farm in Maine for meeting its nutrient management-related needs is \$200,000 - \$250,000. NRCS also is estimating that \$50,000,000 is required to meet the total need for Maine livestock farms and, as suggested in the discussion of the Phase 2 Supplemental grant program, this is a very conservative estimate. Conservation requirements of vegetable or crop farmers is estimated to be \$5,000,000-\$10,000,000.

Manure storage structures and milk house waste handling systems were constructed across the State by means of funds provided in Phases I, II and III of the Nutrient Management Grant Program as outlined above, and also by funding through USDA's EQIP program administered by NRCS. Although these grant programs achieved substantial progress for helping farmers comply with legal requirements in Maine's Nutrient Management Act, it is clear that much more nutrient management conservation work needs to be done.

Accordingly, in January 2006, the Nutrient Management Review Board decided that the Department should seek additional monies for a Phase IV Project through a bond issue. This proposed Phase IV Project would be similar to that of Phase III, but eligibility for funding would be expanded to include more nutrient management-related conservation practices similar to those offered in Phase II Supplemental. These projects could include: roofs for new or existing manure storage structures and livestock heavy-use areas; feed storage areas to include silage leachate, filter strips, diversions or high-flow, low-flow devices and; water control in barnyards to include roof run-off management and other pertinent practices. Compost pads, slaughterhouse waste utilization and on-farm carcass disposal, or other practices as deemed appropriate, also will be considered. Since every situation is unique, appropriate environmental remediation systems must be selected that achieve on-site specific goals.

In 2007, the Department included a request for funds for nutrient management purposes in a larger environmental bond. Because bond funding had been provided for nutrient management in the past, but not for some of the other requests, the legislature chose not to include the nutrient management request in the bond issue that went to the voters in November, 2007. The Department still intends, however, to submit the request again in the next round of environmental bond issues.

Nutrient Management Loan Program

The Nutrient Management Loan Program makes available to farmers a total of \$6 million for financing the construction or improvement of manure and milk room waste containment and handling facilities, and associated costs. It is often seen as a good supplement to the Nutrient Management Grant Program when grant funds do not cover the total costs of a project, or when a project is simply not eligible for a grant.

The Department of Agriculture continues to cooperate with DEP, the Maine Municipal Bond Bank and the Finance Authority of Maine (FAME) to deliver this program to farmers. FAME administers the Loan Program using funds provided from the State Revolving Fund made available by DEP and EPA. The Program offers a low interest rate loan (2%) for a maximum loan of \$350,000. In 2002, there were fourteen (14) closed applications (up from 11 the previous year) for a total of \$1,927,797 (up from \$956,993 in 2001). There were no expenditures from the loan fund for nutrient management projects during either 2003, 2004 or 2005. However, in 2006, one loan was finalized for \$165,000. There were no requests for loan applications in 2007 and only one at the start of 2008. Currently, there are eleven active loans which represent an expenditure of \$873,709. \$665,739 is available in the loan fund. Substantial, additional monies could be appropriated to this fund if needed, although there are no pending applications at this time.

The potential benefits of this loan fund constitute a significant means of providing large amounts of relatively low-interest capital for enhancing the viability of an important segment of Maine agriculture. The result of insufficient staffing, particularly a Nutrient Management Coordinator for several years, resulted in this program not being promoted sufficiently to make its availability and potential benefits widely known or understood. Outreach to the agricultural community must be initiated and coordinated by this Department by holding local workshops, the publication of promotional factsheets or brochures, and by increased interaction with local soil and water conservation districts.

The Department has taken a leadership role coordinating discussions with DEP, FAME and others to broaden the scope of this loan program to include eligibility, not only for manure-related structures, but also for equipment or projects that directly impact agricultural non-point source pollution reduction. The Nutrient Management Review Board directed the Department to pursue expanding funding eligibility for this program similar to that proposed in the Phase IV project discussed above. In late fall 2006, the Department submitted 17 additional practices to DEP for review and approval for funding by the loan program. These practices have also been submitted to EPA for approval. The EPA met with Department staff and made farm visits in 2007 to view some of the additional practices being proposed for inclusion in the program. At the time of this report, the EPA had not made a final decision on which practices it would approve.

Future increased awareness of the loan program, coupled with an enhanced selection of options from which to choose for conducting environmental remediation projects, may encourage more farmers to take advantage of this opportunity.

Tax Exemptions

Maine tax law contains two provisions that allow farmers to claim tax exemptions. One provision exempts manure storages from property taxes because they are pollution control structures. To qualify, a nutrient management plan must have been written and approved for the farm. The use of this exemption has been limited, with only two requests in 2003, which is the same as in 2002. The number of requests in 2004 increased to seven. There were four requests in 2005, and no requests were received in 2006. These have been handled through an informal process of communication between the agencies. Unfortunately, this informal process has proven cumbersome and inefficient. Neither local town officials nor Maine Revenue Service personnel adequately understand or have sufficient procedures in place to appropriately administer this program. This exemption has worked in these limited cases only because the Department's staff were able to act as liaison between the parties on an ad hoc basis to effect a positive outcome for the farmer.

The second provision allows farmers to take a sales tax exemption on materials used to construct a manure storage or handling system. Due to lack of staff, this provision has not been promoted and so has not been widely used. However, Department staff have met with personnel in the sales tax division of Maine Revenue Services to determine what is needed to formalize the process of applying for and approving this exemption. The sales tax division has taken on the task of developing a special form that farmers may complete when seeking this exemption. This process requires additional follow-up.

These two provisions in Maine tax law, enacted to help the State's farmers successfully compete in the marketplace and survive economically, clearly are underutilized. This is another arena in which the Nutrient Management Coordinator will provide education, coordination and guidance for farmers and public officials.

COORDINATION WITH DEP PROGRAMS/JOINT LOP/MEPDES PERMITS

The Maine Nutrient Management Program requires a livestock operation to obtain a Livestock Operations Permit (LOP) if it meets one of the following conditions:

The operation is new with 300 or more animal units (AU) or is expanding to greater than 300 AU.

The operation meets the 1998 EPA definition of a Concentrated Animal Feeding Operation (CAFO) (1000 AU), or is designated as one by the Department.

The operation plans to expand beyond its land base for spreading or current manure storage capacity.

This permit is mandatory for a livestock operation meeting the criteria outlined above to operate in the State. Additionally, for operations meeting the EPA definition of a CAFO¹, a Maine Pollutant Discharge Elimination System (MEPDES) permit also may be required. The Maine Department of Environmental Protection has been given the authority to issue MEPDES permits by the EPA. The Departments of Agriculture and Environmental Protection cooperated to

¹ An operation is considered a CAFO under the Nutrient Management Rules if:

- It confines more than 1,000 animal units
- It confines between 301 and 1,000 animal units and that may or does discharge to the waters of the United States
- It has been designated a CAFO by EPA or its delegated permitting authority.

develop general language and conditions for developing a joint LOP/MEPDES procedure for those operations whereby the operator comes to the Department of Agriculture and obtains both permits through the same process. A common application package also has been completed. These cooperative efforts will facilitate the process, both for the applicant and for the issuing authorities.

EPA revised rules that govern National Pollutant Discharge Elimination System (NPDES) permits related to CAFOs in 2003. These proposed changes were challenged immediately by both environmental and agricultural industry groups. The U.S. Court of Appeals for the Second Circuit issued rulings regarding these issues in 2005. However, as of this writing, EPA has not completed the task of writing these new rules, which are undergoing federal inter-agency review. No date has been set for publication of these rules in the Federal Register. Consequently, the Department still is uncertain what impact these potential changes will have on Maine farmers, and we are not sure how many farm operations in Maine will be required to obtain a MEPDES permit.

An inspection of the DeCoster Egg Farm facility by the EPA in 2002 determined that this farm would not need a NPDES permit since there were no crop fields being managed by the farm and there would be no discharges to any water bodies. It may take some time before the Departments will know how many other large farm operations with finalized or provisional LOPs also will need a MEPDES permit.

LIVESTOCK OPERATIONS PERMITS ISSUED AND APPEAL

As of December 31, 2002, seven farm operations had been identified as needing a Livestock Operations Permit. These facilities have been inspected and issued a provisional permit. These provisional permits allowed the farm operations the opportunity to meet the requirements for obtaining a full permit and to fulfill the requirements of the law. However, the complexity of these permits required the availability of substantial blocks of time to work on them effectively and efficiently. Consequently, at this time, four farms are operating with expired provisional permits. As a result of changes in many farming operations during the last few years, there are about 60 farms that may require an LOP. Some of these will also require a MEPDES permit. The Department has identified these farms so that either provisional or finalized LOPs, and MEPDES permits, if required, can be issued. During 2007, the Department has sent letters to the largest and otherwise highest priority farms, encouraging them to start the application process. Application packets have actually been sent to 14 farm operations to initiate the process. The Department stands ready to advise the farms on the process and submission requirements. Nutrient management planners are also working with some of these farms to assist in data collection and submission of the applications.

In March of 2003, the Department issued its first full Livestock Operations Permit (LOP) to DeCoster Egg Farms. Soon after the issuance of the LOP to DeCoster Egg Farms, a group of citizens in Turner formally filed an appeal to the issuance. A hearing was scheduled before the Nutrient Management Review Board for June 2003, but was delayed at the request of the appellant. It was postponed until after September 1, 2003 and then rescheduled for March 2004. The primary issue raised was the effectiveness of odor and insect control BMPs.

The outcome of this hearing was that the Nutrient Management Review Board upheld issuance of the LOP, but with additional conditions. The appellant filed an appeal in Superior Court

regarding this ruling, as well as a civil suit against DeCoster. In February 2004, the petitioners appeal was denied by Superior Court and the Board's ruling was sustained. The civil suit also has been resolved.

NUTRIENT MANAGEMENT REVIEW BOARD

The Nutrient Management Review Board is a 7-member Board, with each member representing a different aspect of the agricultural community and the public. The Nutrient Management Review Board's duties include approving rule changes, hearing appeals on permit or certification decisions made by the Commissioner and making recommendations to the Commissioner on issues pertaining to nutrient management. The Board is staffed by the Department's Nutrient Management Program Coordinator. The Board was more active in 2003 than in the previous year, but again activity had to be limited since there was no Nutrient Management Coordinator working on issues that needed Board attention. The three areas of focus for the Board in 2003 were the Nutrient Management Grant Program, enforcement of the Nutrient Management Law and addressing the appeal to the Livestock Operations Permit that was issued to DeCoster Egg Farms. The Board reviewed the changing rules and policies regarding the NRCS EQIP program and recommended several significant changes for the Nutrient Management Grant Program (See section on Phase III of the Grant Program). In 2004, the Board's activity was quite limited with most of its time devoted to the DeCoster appeal and to the Nutrient Management Grant Program. During 2005 and early 2006, the Board's activities and concerns centered on recertification training for Nutrient Management Planners, issuance of variances to the winter spreading ban and the decline in availability of farm technical assistance from NRCS. Establishment of a Phase IV component of the Nutrient Management Grant Program was a top priority, along with expansion of eligibility of projects covered by the Nutrient Management Loan Program.

In January 2006, the Board issued a ruling regarding the use of Algefiber on farms. Algefiber, comprised of perlite and spent seaweed, is a by-product of carrageenan production and has agricultural value as a weak liming agent and soil conditioner. Carrageenan is a food additive used in ice cream, toothpaste and hundreds of other products. The Board ruled that Algefiber is not a regulated residual as defined by the Nutrient Management Law and, therefore, a Nutrient Management Plan is not required by farms utilizing this product. However, farms operating with a Nutrient Management Plan still must consider Algefiber's nutrient contribution when the "whole-farm nutrient balance" is calculated.

Later in 2006, much of the Board's time involved planning for the Phase II Supplemental and Phase IV grant programs, revisions to the loan program, and issues related to livestock operations permits and proposed changes to EPA's CAFO rule. Interaction with DEP personnel regarding agriculture compliance issues associated with certain livestock farms, the proposed Agriculture Compliance Rule, winter spreading variances and avian influenza considerations also were important agenda items. Reinstatement of the Nutrient Management Coordinator position has effected increased activity in all of these areas.

The Nutrient Management Review Board only met twice in 2007. Although they were updated on a number of important developments in the nutrient management arena, no policy actions or decisions were required.

AGRICULTURAL COMPLIANCE PROGRAM

The Nutrient Management Program works in very close collaboration with the Agricultural Compliance Program. The Agricultural Compliance Program investigates and addresses all agriculturally based complaints including odors, insects, improper manure handling, water contamination, improper disposal of farm wastes, cull potatoes and animal carcasses. The Department of Agriculture also cooperates with other agencies when complaints are associated with other regulated materials and activities on the farm.

In 2005, the Department's two Agricultural Compliance Officers, who cover the entire State, investigated and resolved a record number of formal complaints. Approximately 240 initial and repeat visits were conducted regarding specific issues involving complex agricultural or environmental situations. During 2006, the Agricultural Compliance Officers conducted approximately 180 initial and repeat visits, a smaller number than was the case in 2005. This reduction in visits was the result of vacancies in both the Compliance Officer and Compliance Supervisor positions following a retirement and a resignation. Significant amounts of time also were required for follow-up of several complex, on-going compliance issues.

In 2007, both positions were once again engaged in compliance work since one had been filled in September 06 and the second was filled in February 07. The number of initial and repeat investigations conducted jumped to over 280. Some of the increase was due to the backlog of cases from the previous year as well as the steadily growing number of new complaints (169) that came in during the year.

The Compliance Officers also inspect and provide technical assistance to farms seeking Livestock Operations Permits and/or MEPDES Permits, and Nutrient Management Plans. They also conduct farm visits to evaluate applications submitted requesting variances for applying manure to fields during the prohibited spreading period of December 1 through March 15.

In recent months, the compliance officers have also been asked to assist with deer farm inspections. Additional training was needed to familiarize them with deer farm licensing requirements.

In connection with the Compliance Program, the Department of Agriculture assists new operations upon request in developing best management practices (BMPs), and works with towns and the agricultural community to address issues associated with the Right to Farm Law, new developments and municipal ordinances.

This process is extremely efficient at correcting improper manure handling situations on farms where a problem has been reported and verified. In recent years, the Department of Agriculture has resolved many ground and surface water related complaints. This effort is ongoing and continues to be very successful, both for the farming community and for the general public.

One area of concern, however, is the rapidly increasing number of complaints about manure issues from non-commercial farm operations. More and more problems are being identified where there is only one to a half dozen animals (often horses) generating manure that is not being stored or managed properly. Many of these situations cannot be defined as a commercial farm and so did not come under the authority of the Right to Farm Law. Changes to the Manure

Law, 17 MRSA §2701-B, made by the Legislature in 2003 enable the Department to address manure-related complaints on these small operations with the same enforcement capabilities it has on larger farm operations. Clearly, the Nutrient Management Program is dependent upon these Compliance Officers to act as field personnel for providing essential services to farmers and others.

During most of 2006 and early 2007, after the retirement of a veteran Agriculture Compliance Supervisor and the subsequent resignation of the Agriculture Compliance Officer to gain employment as an agricultural engineer, the Department had only one compliance person to cover the entire State. This situation came at a time when many challenges faced the Department regarding agricultural compliance issues, thereby testing the Department's ability to successfully prioritize investigations and fulfill required commitments.

COMPLIANCE AND ENFORCEMENT ACTIVITIES

Overall, 2007 was a hallmark year for resolving long standing compliance cases. Long term issues on four farms in Kennebec, Lincoln and Penobscot Counties received a lot of attention from the Department in 2007. Two of these were brought to a successful resolution, while the others had substantial progress made so that final resolution is likely in the coming year. Two other large cleanup cases were identified on farms in Oxford and Penobscot Counties that will be the focus of efforts this year.

Perhaps the most notable case involved a central Maine dairy farm that was designated a CAFO by DEP and issued a MEPDES permit in August 2006. This farm had a history of water quality and other violations going back to at least 1998. In late fall 2006, the provisional LOP of this farm was revoked by the Department of Agriculture for failure to comply with provisions of its permit. The farm appealed the revocation to the Department and requested a hearing. The appeal of the Department's revocation of the provisional LOP was denied. The farm appealed this decision to the Nutrient Management Review Board. Upon further review of this matter, the Department determined that this farm's provisional livestock operations permit had expired prior to the revocation hearing, therefore, an appeal to the Nutrient Management Review Board of the Department's previous decision was moot.

Beginning in the fall of 2006 and into 2007, the Department, DEP, the EPA and the US Department of Justice (DOJ) cooperatively initiated enforcement actions against the farm for multiple and continuing water quality violations. After several months of unsuccessful efforts to get the farm to comply with permit conditions and orders from the EPA and the court, the farm operation was shut down by the owner. The farm's financial backer then took over the operation and initiated a clean up operation. This was completed in the summer of 2007. Although the farm is still idle at the time of this report, there are plans to bring the farm up to standards and to start up operations again under new management.

MUNICIPAL ORDINANCES

Every municipality has a mandatory shoreland-zoning ordinance, which regulates activities within the shoreland zone (including agriculture). A code enforcement officer enforces the ordinance. Many municipalities have other ordinances, which regulate agriculture outside the

shoreland zone. If a municipality proposes an ordinance that could impact agriculture by restricting the use of BMPs, it is required to send a copy of the ordinance to the Department for review. Subsequent to this review, the Department notifies the municipality with its findings regarding the potential impact of the proposed ordinance on agriculture. The Department therefore is aware that some ordinances make it very hard for farmers to have a sustainable agricultural operation if an ordinance is too stringent (e.g., number of animal units allowed), and is working with municipalities to resolve any issues.

CONCLUSION AND FUTURE CHALLENGES

One conclusion drawn from the preparation of this report is that an impressive number of activities have been implemented and are underway right now in the Nutrient Management Program. There is a sense that the farming community, by interaction with the different players and activities of the Program, feels more comfortable with the whole concept of Nutrient Management and is getting more and more involved. Efforts in education, certification, financing, technical assistance and public relations, although limited, are paying off. There is, however, still a lot of work to be done.

A second conclusion is that, despite all the positive actions that have taken place to date, staying informed and involved at many different levels to ensure that the Maine Nutrient Management Program evolves and remains efficient continues to be a challenge. Reinstatement of the Nutrient Management Coordinator position was a significant, positive step for addressing these challenges and for delivering benefits to Maine farmers and other citizens.

Rulemaking

The Department has three sets of rules that have some impact on the Nutrient Management Program and some of these will require rulemaking in 2008. The Carcass Disposal Rules (Ch 211) were last revised in 1996, and many new BMPs have been developed that should be reflected in the rules. The initial work to prepare for revising these rules has been started, but a significant amount of work remains before they will be ready for adoption. Among other things, the Carcass Disposal Rules must be amended to include an enforcement section based on the penalty structure authorized by the legislature in 7 MRSA §1706.

The rules for the Right to Farm Law, now more appropriately entitled “Rules for the Agricultural Compliance Program”, were more than 20 years old and very obsolete. New rules that contain the processes for complaint investigation, as well as BMP development and enforcement, were drafted and were presented to the agricultural community in January 2007. The “Rules for the Agricultural Compliance Program” essentially outline procedures that have been utilized by the Department’s compliance officers for many years, but now will be more clearly defined. These Rules also provide a firm, legal basis for problem solving under the laws which they are intended to support, such as the Manure Law, the Nutrient Management Law, and other laws related to water quality issues. The Rules were finalized and adopted in May, 2007.

The Nutrient Management Rules also must be revised to reflect changes made to the law in 2003 and to correct inconsistencies that have come to light as the rules are being applied.

Follow-up on Phase II, Phase III and Phase II Supplemental Grants

Even though the Department continues in Phase III of the grant program, five of the Phase II construction projects were never completed and funds for those projects were withdrawn in order to make them available for other projects. A higher proportion of Phase III projects had been started or completed than was the case of Phase II projects. The alacrity of Phase III project initiation likely can be attributed to a 90% cost-share rate versus a 75% cost-share rate for Phase II projects. The lower cost-share rate resulted in a substantially larger financial outlay by the farmer, most of whom have limited discretionary dollars. This likely impeded progress in some situations. The Phase II Supplemental grant application and selection process was completed in 2006 while the notifications of awards to successful applicants, the development of contracts, and follow-up continued into 2007. The Department must continue to monitor progress on these projects to ensure that they have reached certain milestones before releasing payments.

Substantial progress has been made in recent years addressing non-point source pollution from agriculture. Availability to Maine farms of the Nutrient Management Program has been a major factor in this success. The Department is addressing the need for expansion of the Nutrient Management Grant Program into a Phase IV project to facilitate the construction of new or retrofitting of existing manure storage and handling facilities. The Phase IV project also proposes to expand eligibility of funding to include a broader array of practices for reducing non-point source pollution involving silage leachate, feed storage areas, heavy use areas and contaminated water runoff from barnyards, among others. As outlined above, the most likely funding mechanism for this endeavor would be through a bond package. If funding is successful, additional coordination with other agencies will be essential.

The Department must address the need for nutrient management plans for fish hatcheries, as mandated by the legislature. This will require the formation of an industry task force that will be staffed by the Department for the preparation of guidelines and the development and adoption of rules.

Follow-up on Nutrient Management Loan Program

The Nutrient Management Loan Program is the most underutilized tool available to farmers in the nutrient management arena. Yet, its potential benefit to Maine agriculture is highly significant. Extensive promotion of this fund must be done by workshops, the preparation of brochures and mailings. Additionally, the scope of this program is in the process of enhancement to include funding for additional types of pertinent equipment and projects, similar to those proposed in the Phase IV initiative, that are not allowed at this time. This is another activity that could yield substantial benefits to farmers and to Maine's environment. A Nutrient Management Coordinator now is available for coordination and for effecting these important changes.

Follow-up on Nutrient Management-Related Tax Exemptions

The two provisions in Maine tax law related to nutrient management also are underutilized. One provision exempts manure storages from property taxes because they are pollution control structures. Neither local town officials nor Maine Revenue Service personnel adequately understand or have sufficient procedures in place to appropriately administer this program. The other provision allows farmers to take a sales tax exemption on materials used to construct a

manure storage or handling system. Unfortunately, both provisions are little used. This is another arena in which the Nutrient Management Coordinator will need to provide education and coordination if these provisions are to have wider use.

Conflicting Priorities: Permitting vs Promoting Benefits for Farms

One of the ongoing conflicts within the Nutrient Management Program is the challenge of meeting statutory requirements such as issuing Livestock Operations Permits while trying to maintain communication with the ag community and promoting beneficial programs such as the loan and tax exemption programs. With potentially as many as 60 farms needing new LOPs and several others needing to submit applications because their original permit has expired, there is far more work than one staff person can manage. Even if the Nutrient Management Coordinator abandons all other priorities and focuses solely on permitting, only about a dozen permits could be written in 2008. One application currently being reviewed alone consists of four notebooks of material from two to five inches thick, all of which must be reviewed and evaluated for completeness and adequacy. Once that process is done then the work on the permit itself begins.

Other priorities such as the promotion of programs that would be beneficial to farms will probably continue to take a back seat to the regulatory mandates in the foreseeable future as long as staffing remains at its current level. Even some regulatory requirements such as the rules for nutrient management plans for fish hatcheries may continue to be postponed while higher priority tasks are focused upon.

Programmatic Changes in Nutrient Management Planning

Continuing changes in USDA and EPA rules and policies are creating a constantly evolving environment. Keeping up with the additional workload created by these changes is very difficult. Comprehensive Nutrient Management Plans are required for all farms that receive Environmental Quality Incentive Program (EQIP) funds, and soon will be a prerequisite for all farms receiving USDA benefits. All elements outlined in a farm's CNMP must be addressed in order for that farm to be considered in compliance with their plan and remain eligible for full USDA program benefits. While many of the provisions in the new USDA guidelines for CNMP development are similar to the State guidelines, there are a number of important differences. The Department does not plan to seek legislation or undertake additional rulemaking at this time to bring the State guidelines into line with these federal guidelines because the process for developing State NMPs generally is neither as complex nor as costly as that for developing more elaborate CNMPs. Rather, the Department prefers to encourage as many small farms as possible to develop a Nutrient Management Plan for their operations by maintaining the simpler requirements for NMPs.

Other changes in EQIP program rules in which projects based on TMDL criteria could target benefits to certain high-priority watersheds, thereby excluding others that also may have urgent needs, must be monitored carefully by the Department.

The Department also is faced with adjusting to new EPA guidelines for designating CAFOs, and determining if these changes will result in issuing permits to more farms in Maine - a complex and time-consuming process for limited Department staff. It is likely that approximately 60 large farms will require LOPs, and some may require MEPDES permits. Four farms are operating with expired provisional Livestock Operations Permits and require assistance from

Department staff in obtaining finalized LOPs. Finalized permits previously issued to farms must be updated soon. This will mean additional staff meetings with DEP to discuss the new procedures for designation of CAFOs and perhaps the development of a new agreement between the agencies on how this is to be done. Complicating these issues is the fact that EPA's positions continue to evolve regarding its approach to regulating CAFOs and Animal Feeding Operations (AFOs). Some of EPA's rules and procedures have been challenged, and the U.S. Court of Appeals for the 2nd Circuit has issued rulings affecting some of these issues. One issue of paramount concern for many livestock farmers in Maine and across the United States is the proposed shift by the 2nd Circuit Court and EPA to require that CAFO nutrient management plans, now confidential documents, be open to public review as part of the MEPDES permitting process. Results of this litigation will play an important role in future EPA procedures and requirements. Consequently, EPA must rethink its approach as to what is the best way to regulate these operations and the standards to which they should be held. In the past, enforcement activities were a primary focus. Recently, however, a welcome shift toward an attitude of problem solving through allowing enhanced technical assistance seems to be receiving more emphasis. Unfortunately, the source for this additional technical assistance remains elusive.

All of these potential changes create uncertainty and confusion when Department program administrators attempt to formulate policies that are in the best interests of agricultural producers and of the State's natural resources. Adequate staffing, which currently does not exist, is essential to keep up with continuing policy changes at the federal level.

In 2007, the Department evaluated the need for a new aspect to its Nutrient Management Planning Specialist Certification Program. NRCS staff now are required to be certified by NRCS for preparing Comprehensive Nutrient Management Plans, and they also require certification for writing and approving State Nutrient Management Plans. The Department evaluated the NRCS certification process to develop a simplified procedure that would link NRCS certification with the State program. However, NRCS has concluded that state certification of their employees should follow the same procedures as those required for all other potential nutrient management planners.

Technical Assistance Specialists

Perhaps the most serious challenge facing the Department and Maine agriculture is the shrinking pool of technical specialists available to apply conservation and nutrient management practices to the land. Our partner, NRCS, on whom farmers, landowners, soil and water conservation districts and others have relied for expertise and assistance, has incurred personnel attrition through retirements and inadequate funding, which is a loss of technical expertise vital for guiding and applying conservation projects to the land. These employees are not being replaced, and their experience and knowledge cannot be replaced quickly. Many federal "farm bill" projects have taken priority over those of nutrient management. All of these situations have left NRCS with limited ability to provide technical assistance to farms that are not locked into EQIP contracts. Consequently, there is a major shift away from providing technical assistance for applying practices to the land by federal employees, and toward an emphasis on contract administration with private technical service providers or other specialists.

The University of Maine Cooperative Extension System, another valuable partner essential for providing expertise in a myriad of disciplines to landowners, to this Department and to others,

also is experiencing a fate similar to that of NRCS. The local soil and water conservation districts, from which considerable expertise is available to farmers and others, generally are dependent upon interaction with NRCS, Extension and other organizations to have viable outreach programs. Although highly motivated to provide the highest quality customer service, which they do, soil and water conservation districts do not have adequate financing or staff to expand their programs at this time.

At a time when nutrient management programs and their implications for agricultural non-point source pollution reduction and point source pollution reductions from CAFOs are the number one priority of the Environmental Protection Agency, and considering the burgeoning demand for technical services for land application of appropriate conservation practices, it is incongruous that sufficient technical expertise is unavailable to meet demand. This trend of decreased expertise available to apply conservation practices to the land must be arrested and reversed to meet goals promulgated by the Maine Legislature and by federal authorities.

Consequently, it is clear that additional technical expertise must be obtained from sources other than that of our traditional partners. Fortunately, a few private-sector technical service providers (TSPs) are available to meet planning needs in some situations, but with the current extraordinary demands on the federal budget, decreased federal funding for conservation programs appears imminent. Nevertheless, the Department must continue to be proactive by providing leadership and by having the capability of meeting expanding, essential needs not being achieved by other entities. The acquisition of technical staff by the Department, particularly that for providing engineering and other technical assistance in the areas of nutrient management, water quality, agronomy and in other related disciplines must be considered by the Maine Legislature in the near future.

Work on Partnership Agreement with NRCS

During 2003, the Department discovered that some fundamental changes were happening within our long-standing conservation partner, NRCS, some of which have been described above. Those changes were impacting how the two agencies were interacting while trying to deliver conservation programs to the farm community. These changes were causing confusion about what roles and services each agency would be providing. Talks were begun between the Commissioner and the State Conservationist for NRCS and their staffs to sort out this relationship. Subsequently, in December 2004, a new written and formalized Memorandum of Understanding was established between NRCS and the Department "for their cooperation in the conservation of Maine's natural resources". Efforts now are underway and must continue between these agencies to map future joint activities that successfully and efficiently deliver conservation programs to the public with the limited personnel and financial resources that presently are available.

Unforeseen/Unplanned Events

Insufficient Department staff struggle to keep up not only with the essential daily workload, but also with constantly changing policies and unexpected events. Issues such as the DeCoster Livestock Operations Permit challenge, and other farm operations with major compliance concerns, deflect valuable staff time from other potentially productive matters. USDA, NRCS and EPA policy and programmatic changes create uncertainty and inhibit the efficient progression of establishing our own policies, procedures and accomplishments.

It will require additional program staff to relieve the backlog of tasks and to allow the Department to stay current with national policies and for the State to maintain a leadership role in agricultural conservation.

Evolution/Future Challenges of the Nutrient Management Program

Of course, without sufficient staff, only the most basic essentials of many programs can be addressed. Despite this fact, a number of concepts or ideas should be considered for future implementation. For example, the concept of nutrient management planning has been accepted quite readily by farmers, considering that the number of plans adopted to date, 636, far exceeds expectations. Farmers realize that the Nutrient Management Rules were developed by Maine farmers and others who understand the problems faced by Maine agriculture, and that they specifically relate to Maine's landscape and climate. This program has proven to be beneficial to farmers (and to others) both economically and environmentally. Another extremely important result of Maine's proactive approach to regulating itself in the nutrient management arena has been, for the most part, the preemption of certain restrictive regulatory mandates from EPA.

The apparent acceptance of nutrient management planning by the agricultural community suggests consideration of, perhaps, reducing the Nutrient Management Plan activation thresholds to fewer than 50 animal units or of reducing the manure or compost importation levels to less than 100 tons. Perhaps all cropland or small livestock operations should be considered for mandatory nutrient management planning? As previously mentioned, small livestock operations, particularly horses, are becoming an increasingly common source of complaint and potential environmental impairment. The network of certified planning specialists for preparing these Nutrient Management Plans would have to be expanded to achieve such an ambitious goal.

The Department should conduct an overview of the sources, availability and fate of nutrients in the State. Questions to be asked and answered include: where are nutrients generated; where are the utilization locations; which residuals, e.g., sludge, wood ash, Nvirosoil, Algefiber or other soil amendments are being spread and where, and what is their source. Manure, compost and chemical fertilizers should be considered. Some sites are licensed by DEP for spreading, yet these sites may not need additional nutrients for optimal productivity. Many materials are being imported to the State, yet this activity is not adequately monitored.

At what level should regulations be applied for all of the above – 5 sheep, 2 horses, 2 acres of crops, 8 tons of manure, etc? The answer is unknown at this time. The best approach to addressing these issues would be the appointment of an industry-wide task force consisting of farmers, soil scientists, extension educators, NRCS personnel, industry representatives and others, to formulate policies that are economically and environmentally sound. The Department is charged with maintaining and improving the health of Maine's agricultural land base, yet much information for fulfilling this mandate is unavailable. Sufficient Department personnel are not available at this time to evaluate these concepts.

Nutrient Management Program Staff

The Department is facing the challenge of trying to deliver a multifaceted program that has wide-reaching impacts on the agricultural community. Reinstatement of the Nutrient Management Coordinator position was essential to keep important aspects of the program moving forward. In the foreseeable future, additional staff will be required for implementing many of the programs

outlined above and for addressing new initiatives that undoubtedly will arise. A nutrient management specialist assistant, a planning and research associate, and an agricultural/environmental engineer, as well as secretarial assistance, will be required to keep this program moving in a direction essential for meeting federal and state legislative mandates, and for the protection of Maine's farmlands and other natural resources.

One proposal to meet some of the staffing needs is to obtain funds that would allow selected soil and water conservation districts to hire specialists. The primary purpose for the specialists would be to meet the outstanding needs for technical assistance to farms, but there could also be a roll assisting with other program objectives.