
Livestock Nutrient Management Program

**Report of Program Activities
January 1 - December 31, 2007**



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Acronyms used in this report:

AFO	Animal Feeding Operation
CAFO	Concentrated Animal Feeding Operation
DOH	Department of Health
EPA	Environmental Protection Agency
LNMP	Livestock Nutrient Management Program
MOU	Memorandum of Understanding
NMP	Nutrient Management Plan
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service (a branch of the US Department of Agriculture)
PCHB	Pollution Control Hearings Board
RCW	Revised Code of Washington
WSDA	Washington State Department of Agriculture
WSU	Washington State University

Note: The following terms are defined on page 17 of this report.

- Animal feeding operation (AFO)
- Designate as a CAFO
- Large concentrated animal feeding operation (Large CAFO)
- Manure
- Medium concentrated animal feeding operation (Medium CAFO)
- Process Wastewater

Executive Summary

WSDA's Livestock Nutrient Management Program carries out the state's dairy nutrient management program and coordinates with the Department of Ecology on the regulation of those dairies and other Concentrated Animal Feeding Operations (CAFOs) that hold a National Pollutant Discharge Elimination System (NPDES) permit.

This report summarizes the inspection and enforcement activities of the Livestock Nutrient Management Program in 2007. It also summarizes the significant activities and issues the program was involved with during the year.

There were 517 dairies listed with the Livestock Nutrient Management Program at the end of 2007, a net decline of 10 dairies from the start of the year. WSDA inspectors conducted 281 routine dairy inspections during 2007, with 85% of these inspections conducted within 22 months of the previous routine inspection, the program's new inspection interval goal.

In 2007, inspectors found 276 (98%) of the 281 dairies they inspected through the routine inspection program to be in compliance with their nutrient management plans. Five facilities had a combination of site or implementation problems that required formal enforcement. Of the 276 compliant dairies, 30 (11%) had some minor issues that resulted in a warning letter from the inspector. Lagoon assessment, conducted in the fall, included visiting 84 facilities with 164 lagoons. Six facilities (7%) required follow up by inspectors.

WSDA responded to 45 complaints about dairies and four operator-reported discharges and participated in 10 joint inspections with EPA in 2007. Together, there were 16 formal enforcement actions taken as a result of these 59 inspections. During the year, enforcement was taken on 11 discharges to waters of the state. This compares to three documented discharges in 2006. The most common water quality complaints related to manure applications to fields. Other complaints involved storage of manure or silage, or animals with access to surface water.

Ecology remains the agency responsible for administering the Concentrated Animal Feeding Operation (CAFO) permit. Ecology issued a revised state General CAFO permit in June 2006 and WSDA has coordinated with Ecology staff to provide technical assistance to review permit documents and inspect the facilities operating under the new permit. Due to changes in CAFO requirements, the number of dairies and feedlots covered by general or individual permits declined from 110 at the end of 2005 to 35 at the end of 2006 and 31 at the end of 2007. Coordination between the two agencies on CAFOs and other livestock and water quality issues has been guided by a memorandum of understanding. Updates to the MOU were under discussion at the end of the year.

Other significant program activities in 2007 included assisting the Natural Resources Conservation Service in technical training for nutrient management planners, increased coordination with the Department of Health, and completing development of the draft rule that establishes numeric ranges for the public disclosure of certain information local and state

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agencies may hold about livestock operations. Program staff also coordinated with Ecology to host the annual national CAFO Roundtable in September with participants from around the country and to address several emerging issues that overlap with the dairy and livestock programs.

The WSDA Livestock Nutrient Management Program has a biennial budget for 2007-2009 of \$1,198,600. The two funding sources are the Water Quality Account and the Water Quality Permit Account.

Livestock Nutrient Management Program Strategy

Updated December 2007

The mission of the Livestock Nutrient Management Program is to protect water quality from livestock nutrient discharges and to help maintain a healthy agricultural business climate. This is to be achieved through clear guidance, education, technical assistance, equitable enforcement of state and federal water quality laws, and good communication with industry, related agencies and other stakeholders. By working with local and state partners, the program can better identify regulatory and technical issues and find solutions that are workable and protect water quality.

Following are the program's key strategies:

- ◆ Carry out the existing regulatory and inspection program for dairies and permitted CAFOs.
 - Inspect every dairy at least every 22 months and inspect non-dairy CAFOs in coordination with Ecology.
 - Ensure that inspectors have technical expertise and good communication skills.
 - Provide effective guidance to producers to achieve compliance.
 - Carry out needed enforcement actions effectively and in a timely manner.
- ◆ Coordinate with technical and educational agencies and industry to assist producers in better protecting the state's water quality.
 - Identify producer needs for technical assistance and guidance.
 - Coordinate with NRCS, the Conservation Commission, Conservation Districts and WSU Extension to ensure that regulatory staff and technical assistance providers across the state have appropriate training and expertise.
 - Identify technical issues that will benefit from new information or improved guidance to producers for more effective implementation.
 - Coordinate with Conservation Districts and the Conservation Commission to support timely response by Districts to referrals for plan updates or technical assistance.
 - Work with NRCS and other stakeholders on NRCS state practice standards that are required of AFO/CAFO operations.
- ◆ Coordinate with Ecology, other stakeholders and the facilities required to hold a CAFO permit on technical issues and field inspections.
 - Provide technical assistance to Ecology on nutrient management plans and field issues.
 - Coordinate with Ecology regarding overlapping issues related to nutrient management on livestock operations.
 - Work with Conservation Districts, WSU, NRCS and industry to help educate and provide assistance to Animal Feeding Operations (AFOs) to avoid discharging to waters of the state.

Livestock Nutrient Management Program Update

The Washington State Department of Agriculture (WSDA) established the Livestock Nutrient Management Program in 2003 to carry out the Dairy Nutrient Management Act, Chapter 90.64 RCW, and to assist the Department of Ecology (Ecology) in the regulation of those dairies and other Concentrated Animal Feeding Operations (CAFOs) that hold a National Pollutant Discharge Elimination System (NPDES) permit. The program staff works closely with other regulatory entities and technical resource agencies in enforcing standards and in providing technical assistance for producers regarding their water quality protection responsibilities. WSDA and Ecology operate under a Memorandum of Understanding in executing the CAFO permit regulatory program and coordinating on livestock and water quality issues.

Dairy Nutrient Management

The Dairy Nutrient Management Act, enacted in 1998, requires all licensed dairy farms to develop and implement nutrient management plans to prevent the discharge of livestock nutrients to surface and ground water. WSDA's goal is to inspect each of these dairies at least once every 22 months. Inspectors evaluate the facilities, nutrient management practices and record keeping for any risk of livestock nutrients impacting water quality.

A dairy farm may be required to obtain a permit from the Department of Ecology if it is a Large CAFO that has a discharge or if it is a medium or smaller dairy that has a direct discharge or a discharge that is determined to be a significant contribution of pollution to surface or ground water. For those dairies that are required to have a CAFO permit, WSDA inspectors also evaluate compliance with permit conditions and coordinate with Ecology on permit administration, including nutrient plan review and compliance.

When the program was transferred from Ecology to WSDA in 2003, there were 580 licensed dairies and 246,297 milking and dry cows. The number of dairies has declined each year, while the number of animals has remained relatively unchanged. As of December 31, 2007, there were 517 dairies listed with the Livestock Nutrient Management Program (LNMP) with about 250,000 milking and dry cows. In 2007, there were 17 new dairies licensed and 27 that went out of business. Of the 17 new dairies receiving licenses in 2007, most were existing facilities that changed hands.

Required Implementation of Dairy Nutrient Management Plans

The Dairy Nutrient Management Act requires that all dairies develop and implement a nutrient management plan (NMP or plan) after they receive their dairy license. The minimum requirements for the plan were established by the Conservation Commission in 1998 in accordance with the Act and require use of the Natural Resources Conservation Service practice standards. Newly licensed dairies have six months to develop a NMP and an additional 18 months to implement the plan. Where an existing plan needs to be updated, WSDA inspectors generally identify a completion date.

Local Conservation Districts must approve each plan as meeting the minimum plan requirements. The District and the producer must both certify that the plan is fully implemented. Plan implementation includes having all facility elements in place as well as carrying out all identified management activities and record keeping. The great majority of licensed dairies have certified plans. A recent review of WSDA's certification records revealed some inaccuracies. Updated information on dairy compliance with the certification requirement and deadlines will be available in mid-2008.

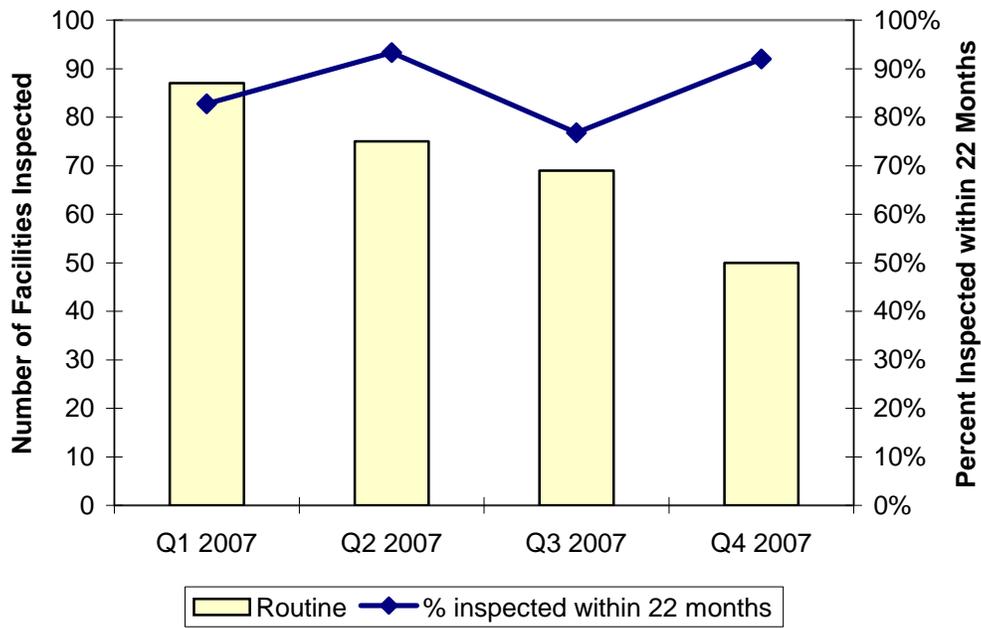
Dairy Inspections

Routine inspections are the backbone of the program. These are conducted on a regular basis throughout the year. WSDA inspectors also conduct lagoon assessments in the fall and provide technical assistance inspections on request. During 2007, WSDA inspectors conducted 281 routine dairy inspections, provided nine technical assistance inspections and covered 84 facilities in its fall lagoon assessment.

Routine Inspections

Starting in 2007, the routine inspection interval goal was reduced from 24 to 22 months. The shorter interval means that a facility will be inspected at different seasons of the year over time. With the reduction in the number of dairies, a shorter interval is possible with existing staff. In the last year, 85% of all routine inspections, including 100% of identified high-risk facilities, were completed within the 22-month interval. Figure A shows the number of routine inspections conducted by quarter and the percent of facilities whose inspections were completed within the 22-month interval in 2007.

Figure A. Routine Inspections by Quarter, 2007



Evaluating implementation of a dairy's nutrient management plan is the key element of every routine inspection. By keeping the plan current with facility size and operations and by properly following the plan practices, operations should not pose a risk to water quality. Site and field management activities prevent surface water runoff, and keeping manure applications at agronomic rates prevents nutrients from leaching below the crop root-zone to ground water or nutrients and bacteria running off the fields. Record keeping and proper soil and manure testing are key management tools to ensure agronomic applications from year to year. Inspectors spend at least half of the inspection time reviewing records with operators and discussing their meaning and usefulness.

Inspectors document any conditions that create a high potential to discharge. To ensure timely follow-through by the operator, inspectors schedule follow-up inspections and may require a facility to send in information by a specified date. In addition, inspectors may refer the operator to the local Conservation District for technical assistance to address implementation or plan issues. Where operators do not follow through, compliance actions are taken.

In 2007, inspectors found 276 (98%) of the 281 dairies they inspected through the routine inspection program to be in compliance with their nutrient management plans. Five facilities had a combination of site or implementation problems that required formal enforcement (Figure B). Of the 276 compliant dairies, 30 (11%) had some minor issues that resulted in a warning letter from the inspector.

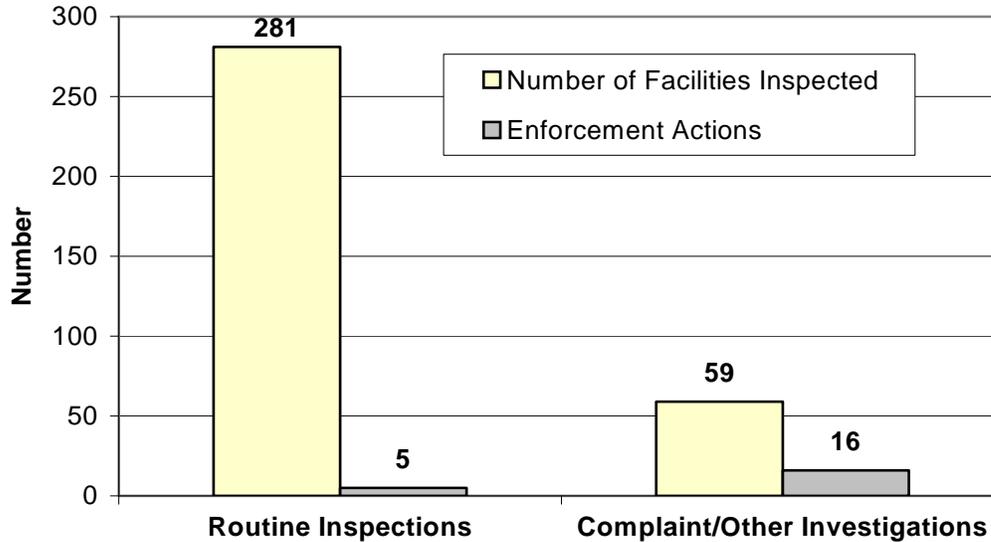
Lagoon Assessments

For the third year running, WSDA focused some of its fall activity on lagoon assessments. The purpose of the assessments is to check whether lagoons are ready for the rainy fall and winter seasons and to raise the awareness of operators of the importance of having their lagoons empty and in good condition for the winter. Assessment work is generally accomplished in one or two days. The inspectors sometimes work together in an area and other times work separate areas.

WSDA inspectors select both target areas and specific lagoons to assess. Letters are sent to all operators in the selected areas several weeks ahead of time. The notification provides a date or dates that the inspector might show up. The assessments do not take much time and not all operators notified are visited. These 'sweeps' assess the condition of the lagoon dikes, lagoon levels and the amount of solids in the lagoons. Doing the assessments early in the fall gives an operator time to address any identified problems.

In 2007, facilities were selected for lagoon assessment in Whatcom, Snohomish, Skagit, Lewis, King, Grays Harbor, Pacific, Grant and Yakima counties. Some facilities were targeted due to previous lagoon issues. Of the 84 facilities visited, 164 lagoons were assessed and six facilities (7%) required follow up by inspectors. The assessments done this year combined with the routine inspections done during the fall in Lewis, Grays Harbor and Thurston counties proved helpful when flooding occurred in those counties in early December. The majority of flooded lagoons had been recently visited and lagoons had been found in good shape for the winter with minimum levels of manure.

**Figure B. Formal Enforcement Actions on Dairies
by Inspection Type, 2007**



Inspection Findings

The following items are areas of facility management and nutrient management that inspectors have spent the most time addressing with producers in 2007. The items are listed in descending order of frequency and are the same as in 2006.

Requirement: NMPs require soil and manure testing and record keeping for proper field applications.

Common Problems:

1. Regular testing and record keeping is not always done.
2. Information is not always used properly from one year to the next to adjust field applications to control or reduce nitrogen or phosphorus levels in the soil.

WSDA Action: Inspectors spend at least half of their inspection time with producers going over this information and its use. All operators with these issues are referred to their Conservation District or their consultant for technical assistance.

Requirement: NMPs must be current with the number of animals and acreage available for applications or amount of manure exported.

Common Problem: Some facilities have changed over time and plans are out of balance. There may be excess nutrients compared to available acres to apply to and arrangements to export nutrients off site may be inadequate or uncertain.

WSDA Action: Inspectors require the operators of these facilities to get their NMP reviewed and updated, and to better document both their export arrangements and the transfers that take place.

Requirement: Field applications need to be made at agronomic rates (the rate at which nutrients will not leach below the root zone of the crop and will be fully taken up by the plants) and need to comply with timing restrictions or buffer requirements for each field to prevent runoff.

Common Problem: Applications have been made at the wrong time or on inappropriate fields. Buffers may have been reduced or ignored.

WSDA Action: Inspectors discuss the importance of the timing of applications, conditions of fields, and buffers for water quality protection with the operators. Operators are referred to their Conservation District or their consultant for technical assistance.

Requirement: Proper lagoon management requires maintaining the integrity of the lagoon dike and retaining full lagoon capacity. Capacity is maintained through proper solids management and properly emptying the lagoon during the application season.

Common Problems:

1. Allowing damage to dike conditions due to overgrazing, not controlling burrowing rodents, or not controlling vegetation so that potential leaks can be detected quickly.
2. Letting solids accumulate or not pumping liquid levels down.

WSDA Action: Inspectors stress the importance of year-round management of the lagoon structure and solids content, proper liquid applications and discuss the capacity of the storage system compared to the number of animals. Operators are referred to their Conservation District or their consultant for assistance.

Requirement: Facility infrastructure, such as gutters, curbs, pumps and pipes, must to be managed and regularly maintained to protect water quality.

Common Problem: Some operators have created or increased the risk of having a discharge through management decisions or lack of proper maintenance.

WSDA Action: Problem areas are identified for repair or improvements. If needed, the operator is referred to their Conservation District or their consultant for assistance.

Observed Improvements

Producers are making improvements in their use of data from required soil and manure samples for more effective field applications. During inspections, WSDA inspectors emphasize accurate record keeping and use of soil test data. This can result in more efficient and proper nutrient applications. This emphasis is showing positive results in many operations. Operations that have had high nutrient levels in their soils have seen those soil test levels drop. Some producers have also found that they can reduce their purchase of commercial fertilizers and still maintain desired levels of production. Record keeping and tools for better applications are also the subject of ongoing technical discussions with staff from Conservation Districts, WSU Extension, Ecology and the Natural Resources Conservation Service in order to provide consistent and effective assistance to producers.

Observed Obstacles

The majority of dairy operators rely on Conservation Districts to provide the basic nutrient management planning expertise and service to operators. Because NRCS standards are the technical standards for the plans and federal cost-share programs, local NRCS staff has historically been involved in plan development either directly or in a review capacity. This has

been particularly important for dairy operators in areas where a district is too small to have its own staff planner. Over the last several years, the availability of NRCS staff to participate in the NMP process where there is no federal cost-share project has significantly decreased. This has reduced the ability of some districts to complete needed NMP revisions, to develop new plans in a timely fashion, or to provide needed on-site assistance.

Recent Conservation District funding levels have increased to assist non-dairy agriculture. While this work is also important, it has reduced the staff time and expertise available to help dairies. There continues to be a need for dairy planning and technical assistance. Regardless, dairy producers are responsible for taking any necessary actions to protect water quality.

Complaint Response and Investigation

WSDA inspectors respond to all dairy-related water quality complaints as well as most other water quality complaints that appear to involve Animal Feeding Operations (AFOs). Most complaints come from the general public but some come from local health departments or other local agencies. The complaints are received directly by WSDA staff or are referred from Ecology to WSDA through Ecology's complaint response system. When received directly, WSDA staff forward the complaint information on to the Ecology system for tracking. In some cases, WSDA coordinates with Ecology to respond to non-dairy AFO complaints, depending on staff availability.

WSDA staff investigates complaints by conducting on-site inspections or by contacting the local Conservation District. If the complaint indicates a possible discharge, a field investigation is always initiated. When problems are documented and follow-up is needed, the inspectors require specific reporting by the facility or conduct follow-up inspections. The operator is also referred to the local Conservation District, if appropriate, for technical assistance. Complaints that relate to air quality, odor or flies are referred to the local air authority or health department and the facility is referred to the local Conservation District for assistance.

If the complaint investigation finds that the problem is from a non-point source, such as pastured animals or manure applications on land not controlled by a dairy, WSDA refers the complaint to Ecology for follow-up. Depending on local ordinances, some non-dairy, non-CAFO complaints are better handled locally. Inspectors coordinate with the local agencies to ensure that they refer these complaints to the local authority for follow-up.

WSDA also responds to operator-reported discharges and conducts joint inspections with EPA, on request.

In 2007, WSDA responded to 45 complaints about dairies. This compares to 28 complaints in 2006 and 37 complaints in 2005. Of the 45 complaints responded to in 2007, 17 were discovered to have valid water quality-related issues and resulted in six warning letters and 11 formal enforcement actions. The most common water quality complaints continued to be related to manure applications to fields. Other complaints involved storage of manure or silage, or animals with access to surface water.

WSDA also responded to four operator-reported discharges and participated in 10 joint inspections with EPA in 2007. All four of the self-reported discharges and two of the joint EPA inspections resulted in formal enforcement actions. Together, there were 16 formal enforcement actions taken as a result of 59 inspections conducted in response to complaints, operator-reported discharges and EPA requests (Figure B).

WSDA inspectors also responded to 13 complaints about non-dairy AFOs with four requiring follow-up investigation and one that required formal enforcement action.

Compliance Activity

When violations are discovered and investigated, the inspectors make a recommendation for enforcement and send their report and documentation to the Olympia office for final decisions and administrative enforcement actions. WSDA uses enforcement tools from Chapter 90.48 RCW, Water Pollution Control, and also complies with Chapter 43.05 RCW, Technical Assistance Programs, to insure proper process is followed when taking enforcement actions and to encourage voluntary compliance when possible.

There are four enforcement tools used by the program when a violation occurs or there is a risk to water quality.

- **Warning Letter**
A warning letter is a letter issued by an inspector to inform a facility that it poses a risk to water quality. Problems that may prompt a letter include: needing an updated plan to better address current activities or not following certain elements of the Nutrient Management Plan, such as those related to soil testing, proper records, or using buffers. A warning letter is an informal action providing documentation for both the operator and WSDA that there are problems that need to be addressed. Warning letters can also be used for administrative purposes when operators miss the deadlines for getting plans approved or certified or submitting their biennial registration.
- **Notice of Violation**
A Notice of Violation (NOV) may be issued when a minor discharge occurs, when permit conditions are violated, or when circumstances pose a continuing or serious potential to discharge to waters of the state. A Notice of Violation may also be issued when operators have not responded to administrative notices regarding their plan approval, plan certification or registration. The NOV identifies the compliance problem and requests information from the producer on how the violation occurred, what was done to fix it, and how it will be prevented in the future. WSDA uses the information as part of its decision on whether to take additional enforcement action.
- **Administrative Order**
An Administrative Order can be issued after an NOV to ensure that necessary compliance action is taken. It is used when issues identified by a previous NOV are not addressed or are repeated. The Administrative Order requires specific actions in specified timelines by the producer to regain compliance, stop a discharge, or prevent future discharges. A variety of

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requirements, depending on circumstances, may be included. An Immediate Action Order may be issued in emergency circumstances without prior issuance of an NOV. Orders can be appealed to the Pollution Control Hearings Board (PCHB).

- Civil Penalties

Civil penalties can be issued for violations of chapter 90.48 RCW, Water Pollution Control, and for administrative violations of chapter 90.64 RCW, Dairy Nutrient Management.

The amount of the penalty for violations of chapter 90.48 RCW is based on the severity of impacts, the cause, action taken by the operator and history of the facility. The statute allows for a penalty of up to \$10,000 a day per violation. The program uses a matrix to aid in setting an appropriate penalty. These penalties can be appealed to the PCHB. The producer may also request relief of the penalty amount from the department prior to appealing to the PCHB.

Civil penalties can be issued under chapter 90.64 RCW when operators fail to register or miss the deadlines for getting nutrient management plans approved or certified. The statute sets a penalty of \$100 for failure to register and a penalty of \$100 per month (with a cumulative maximum penalty of \$5,000) for failure to meet plan deadlines.

Enforcement actions taken

During 2007, 21 formal enforcement actions were taken against 18 dairies. Eleven of the actions were the result of discharges to waters of the state. The majority of violations and discharges occurred in the first five months of the year. One civil penalty of \$3,000 was issued for a water quality violation after silage leachate was discharged to a ditch and then into waters of the state. Where a discharge is relatively small and contained, the Act allows a penalty to be waived for first-time offenders. In addition, 36 warning letters were issued in 2007 to address administrative issues or situations that posed a risk to water quality. One NOV was issued to a non-dairy animal feeding operation.

Enforcement Actions Taken on Dairies, 2007

Enforcement Action	Number Issued
Warning Letter	36
Notice of Violation	17
Administrative Order	3
Civil Penalties	1
Civil Penalties, lack of certification*	17 facilities

* Number of facilities assessed civil penalties during 2007. Does not include all facilities not in compliance with certification requirements.

Other Program Highlights

Staff Stability

For the first time since the program moved to WSDA in July 2003, there were no staff changes during the year. As a small program that depends on strong technical expertise, staff stability is important in working effectively with both producers and stakeholders. In 2007, program staff continued to expand working relationships with Ecology staff working on water quality improvement projects (known as TMDLs) or other livestock-related activities. Staff also worked with local shellfish districts and other local stakeholders. WSDA staff continued to make presentations to local dairy and cattle organizations as well as local shellfish and watershed groups in 2007 regarding program activities and issues.

Grant Program

Civil penalties from violations of Chapter 90.64 RCW are used to provide grants for research or education activities that assist livestock operations to achieve compliance with state and federal water quality laws.

In 2007, WSDA provided funding to WSU to extend an existing research project from two years to four years. This \$36,000 grant allows WSU to continue working with Ecology to address cycling of nitrogen from crop to animals and back to fields and looks at levels in the soil and potential losses to ground water.

Besides the nitrate study grant, \$8,000 was set aside to help fund a livestock composting project by WSU that's expected to start in 2008. The balance in the grant program's account as of December 31, 2007, including the funds obligated, was \$80,284. Developing a more formal grant program was postponed during 2007 to allow the fund to build in order to accommodate larger proposals or a greater number of proposals.

Rulemaking on Disclosure of Nutrient Management Information

Work continued in 2007 to develop the rule on disclosing certain nutrient management information only in ranges. WSDA began developing the rule in the spring 2006. Staff met with stakeholders to discuss information and approaches to use in order to meet the intent for both confidentiality and meaningful information. During the winter of 2006-2007, a final approach was determined and agreed to by stakeholders. The formal rule making process is expected to proceed in 2008.

Program Funding

The WSDA Livestock Nutrient Management program has a biennial budget for 2007-09 of \$1,198,600. The program has two primary funding sources:

- \$1,143,000 from the Water Quality Account; and
- \$55,600 from the Water Quality Permit Account.

While the total budget is essentially unchanged from the 2005-07 biennial budget, the funding split is significantly different. Previously, the Water Quality Permit Account provided 24% of the program's funding. This was reduced to 5% with the current budget.

This change reflects the reduction in CAFO permit fee revenue. Under the revised federal CAFO rule, fewer dairies and other CAFOs are required to be under permit and pay permit fees. WSDA worked with Ecology in 2006 to develop a proposal to adjust the program funding to better reflect expected revenues and expenditures. That proposal was included in the Governor's recommended 07-09 biennial budget and subsequently adopted by the Legislature.

The program also has authority to expend up to \$59,000 from the Livestock Nutrient Management Account to provide grants for research or education activities. Moneys in the account are from penalties levied under the Dairy Nutrient Management Act.

The program has six staff: a program manager, one support staff and four field inspectors. One of the inspectors is the program's lead inspector. This position is responsible for some inspections, for preparing compliance documents, and provides support and guidance to the other field staff to address field and technical issues that arise and ensure consistency. The lead inspector also works closely with Ecology permit staff on permit administration and coordination.

Significant Activities and Issues in 2007

Joint Training Conducted on Comprehensive Nutrient Management Plans

WSDA staff worked closely with the Natural Resources Conservation Service, WSU and the Conservation Commission to develop and conduct a week-long training on Comprehensive Nutrient Management Plans (CNMPs) in October. A CNMP is required to be eligible for federal financial assistance for livestock facility improvements. The purpose of the training was to improve technical expertise across the state and to facilitate planners gaining NRCS certification as CNMP planners. The training included discussions on the overlaps and differences between the regulatory dairy and CAFO permit nutrient management plans and the voluntary NRCS CNMP. The core planning functions of assessing a site and identifying risk issues and the alternatives to address them are the same for all three plans. WSDA staff made presentations related to the state's dairy plans. All field staff attended as students in order to be better informed when working with operators on their nutrient management plans.

This training was attended by planners and technicians from the majority of Conservation Districts as well as private industry. It provided an opportunity for planners and agency staff to hear about regulatory and technical issues at the same time. More importantly, participants were able to discuss the issues and share expertise among each other.

WSDA and Ecology Co-host National CAFO Roundtable

In September, WSDA and Ecology hosted 98 participants at the annual national CAFO Roundtable. This 2½-day meeting brings together state and federal staff who administer or work with the federal CAFO program. The meeting included updates from EPA on the CAFO rule and provided a forum to discuss various policy and administrative issues in implementing the federal and state permit programs. The event included a field tour that visited a CAFO and a shellfish operation and discussed watershed connections.

WSDA Coordinates with DOH Shellfish Program

In the spring, WSDA staff met with the Department of Health (DOH) Shellfish program staff to present information on the Livestock Nutrient Management Program. During the meeting, staff discussed ways to coordinate and better address water quality issues related to livestock. One outcome was that each of the west-side inspectors spent a day with DOH staff observing and helping collect routine marine water quality samples used in assessing shellfish area conditions. The exchange of information and shared perspectives has proven to be a benefit.

WSDA and Ecology Focus on Implementing Split Program

In 2006, in light of changes to the federal CAFO rule and extensive discussions with stakeholders, WSDA and Ecology decided to put efforts to move administration of the CAFO permit program to WSDA on hold. The agencies decided instead to focus their efforts on implementing a program that kept CAFO permit administration at Ecology and the CAFO inspection program at WSDA.

Discussions were to occur in 2007 on how to best implement a split program with an expectation of revising the Memorandum of Understanding (MOU) that guides coordination between the two agencies on CAFOs and other livestock and water quality issues. Updates to the MOU were under discussion at the end of the year.

Under the split program in 2007, WSDA continued to coordinate with Ecology on administering the CAFO permit for dairies and provided field and technical assistance to Ecology in administering CAFO permits for non-dairy facilities. Staff in both agencies responded to non-dairy livestock-related complaints, coordinating on a case-by-case basis. WSDA may take preliminary compliance actions with a non-dairy facility. This includes referring the facility for technical assistance and writing warning letters. Where more enforcement is necessary, WSDA refers the facility to Ecology. Ecology continues to be responsible for water quality enforcement for non-dairy animal feeding operations and all other non-point livestock-related issues.

Administrative Complications Under Discussion

WSDA's administration of the Dairy Nutrient Management Act (Chapter 90.64 RCW) continues to be complicated by the nature of the statute, which has not been updated since 1998, when the requirement for dairy nutrient management plans was established.

For example, while the statute is clear about the process for a dairy's initial plan, it does not specifically address how to handle plan updates. Nor is it clear on which agency is responsible for addressing plan update issues, whether to incorporate NRCS standards that have changed since the plan was first written, whether updated plans need to be approved and certified, or how to handle plans developed by dairies with the assistance of private consultants.

Enforcement authority is also complicated by statutory construction. The transfer of the program from Ecology to WSDA in 2003 was accomplished through a single section of law, which gave WSDA "all powers, duties, and functions of the department of ecology pertaining to Chapter 90.64 RCW." By reference, WSDA was also given the enforcement authorities for dairies used by Ecology under Chapter 90.48 RCW, Water Pollution Control. The statute does not provide WSDA with the specific authority commonly found in other statutes it administers related to such things as right of entry and access to documents. The lack of direct, specific authority complicates WSDA's ability to effectively enforce the law.

WSDA spent time discussing these and other matters related to working under the current statute with the industry in 2007. WSDA will continue to work to develop consensus on areas where the statute might be updated in the future.

Discussions on Emerging Issues Initiated between WSDA and Ecology

Two topics related to dairy nutrient management prompted additional discussions between WSDA and Ecology. Both topics deal with situations where dairies take on activities that are typically regulated by Ecology or local health departments.

The first topic deals with the regulation of dairy operations, mostly small ones that process their milk on site. Between 2002 and 2006, the number of dairy farms also licensed by WSDA as

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milk processors increased from 11 to 43, largely due to the interest by the farms in producing and marketing their own milk products.

The additional wash water from the milk processing activity is typically routed to the manure lagoon along with the milk parlor water where it is eventually applied to fields as part of the agronomic crop application of nutrients. When the volume is very small, it may be discharged through a filter strip. This wastewater is generally addressed in the dairy's nutrient management plan, however, the cleaning and sanitizing products used in the milk processing activity may not be directly addressed. Regular inspections by the WSDA inspectors include reviewing the handling of the process water and whether it is land applied at agronomic rates and conditions.

As the number of these milk producer/ processor operations has increased, questions have been raised as to whether these operations should be required to have a state waste discharge permit issued by Ecology. WSDA and Ecology began conversations in 2007 to develop a common understanding on how these operations should be regulated and to clearly communicate the agreed-upon approach to producers and local health departments.

The second topic deals with anaerobic digesters located on dairies and digesters that send solids or liquid to dairies for field application. WSDA has worked with the two existing dairies that have on-site digesters to ensure that the applicable nutrient management plans are accounting for the correct volume and nutrient levels in the liquid and solids from the digesters.

Ecology becomes involved when a digester begins to use materials other than manure in the digester (co-digestion). This causes the digester to be considered an industrial activity. Handling the other materials on site and subsequent use of the solids from the digester can place a facility under solid waste regulations. The handling and use of the liquid output could require a state waste discharge permit. The solid or liquid output that returns to dairies must be covered by the dairy's nutrient management plans and proper applications are inspected by WSDA.

Discussions between WSDA and Ecology in 2007 focused on how the current regulations apply, what is needed to ensure proper environmental and health protection, and how to handle stand-alone facilities that are not located on a dairy. The Office of Regulatory Assistance also began facilitating discussions among the agencies and proponents of a digester project currently under development.

Compliance with the Federal and State CAFO Permit

Federal CAFO Rule Still Pending

The revised federal CAFO rule, initially issued by EPA in 2004, is still not final. Draft changes issued during the summer of 2006 are still under consideration. Topics of continuing discussion at the federal level include treatment of pathogens on permitted facilities and considerations regarding storm water handling on un-permitted facilities. It appears that the permit requirements of the final rule will not significantly differ from the current requirements in Washington's CAFO General Permit.

There is no reliable prediction on when the final rule will come out. WSDA staff will work with Ecology on implementing the rule when it finally comes out. Any changes will be reflected in new CAFO permits written after the rule is issued; current permits will not be affected.

Washington's 2006 CAFO General Permit Appealed

Ecology issued the state's CAFO General Permit in July 2006. The permit was appealed to the Pollution Control Hearings Board as not meeting the requirements of state and federal law. The hearing took place in May 2007. The decision issued by the Hearings Board in August 2007 was to uphold the permit as issued by Ecology with two changes.

- The Board ordered clarification that, if manure applications resulted in a field discharge where the nutrient management plan proved inadequate, no additional applications could be made to that field until the plan had been updated to ensure agronomic rates and application guidelines were properly established.
- The Board also ordered clarification of a section related to the plans that requires minimizing movement of nitrogen and phosphorus to the lowest achievable level.

The PCHB ruling has been appealed to Superior Court. The permit continues to be in effect during the litigation.

General Permit Implementation

The 2006 CAFO General Permit requires that all permit holders have a final nutrient management plan completed and implemented by January 21, 2008. WSDA worked with Ecology to remind both operators and planners of this deadline. (Note: the federal rule had required full implementation by July 2007 however, this date was later moved to 2009. The Washington CAFO permit relied on the federal date or January 21, 2008 whichever comes first, thus the Washington deadline is in 2008.)

As the CAFO nutrient management plans have come in, the regional inspector as well as the lead inspector have reviewed the plans and made recommendations to Ecology on improvements, if needed, or on accepting the plan as adequate. During 2007, WSDA inspectors reviewed and commented on plans for 15 facilities: 9 dairies, 4 feedlots and 2 poultry operations. Four plans were accepted by Ecology and 11 are undergoing revisions.

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As Ecology approves nutrient management plans developed for each permitted facility, WSDA staff will inspect the facility to evaluate implementation of the permit. The intent is to ensure that all facilities understand their new plan requirements and adjust their management to accommodate the additional requirements, activities and record keeping.

WSDA coordinates closely with Ecology when taking enforcement actions on permitted dairies and when considering action on non-permitted dairies that have a discharge and may become subject to the permit. WSDA inspectors also work with Ecology permit staff on verifying information on currently permitted facilities. A number of facilities requested that their permit coverage be terminated. Inspectors reviewed their files and inspected those facilities to determine whether they should continue to be covered or not.

At the end of 2006, there were 30 dairies and 5 feedlots under permit. By the end of 2007, there were 24 dairies and 5 feedlots under the 2006 General CAFO permit and two feedlots covered under individual permits. New coverage for two poultry operations and one dairy operation was not yet final.

Definitions of Key Terms

Source: Concentrated Animal Feeding Operation (CAFO) National Pollutant Discharge Elimination System (NPDES) and State Waste Discharge General Permit, effective 7/21/06, issued by the Department of Ecology.

"Animal feeding operation" or "AFO" means a lot or facility that meets both of the following conditions:

(a) It has animals (other than aquatic animals) have been, are, or will be stabled or confined and fed or maintained for a total of forty-five days or more in any twelve-month period; and

(b) Crops, vegetation, forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility where animals are confined.

"Designate as a CAFO" means the appropriate authority has determined that an AFO is a significant contributor of pollutants to waters of the state and issued a formal designation.

"Large concentrated animal feeding operation" or "large CAFO" means an AFO that stables or confines as many as or more than the numbers of animals specified in any of the following categories:

- (a) 700 mature dairy cows, whether milked or dry;
- (b) 1,000 veal calves;
- (c) 1,000 cattle other than mature dairy cows or veal calves. Cattle includes but is not limited to heifers, steers, bulls, and cow/calf pairs;
- (d) 2,500 swine each weighing 55 pounds or more;
- (e) 10,000 swine each weighing less than 55 pounds;
- (f) 500 horses;
- (g) 10,000 sheep or lambs;
- (h) 55,000 turkeys;
- (i) 30,000 laying hens or broilers, if the AFO uses a liquid manure handling system;
- (j) 125,000 chickens, other than laying hens, if the AFO uses other than a liquid manure handling system;
- (k) 82,000 laying hens, if the AFO uses other than a liquid manure handling system;
- (l) 30,000 ducks, if the AFO uses other than a liquid manure handling system; or
- (m) 5,000 ducks, if the AFO uses a liquid manure handling system.

"Manure" is defined to include manure, bedding, compost, and raw materials, or other materials commingled with manure or set aside for disposal or process wastewater.

"Medium concentrated animal feeding operation" or "medium CAFO" means an AFO that stables or confines the numbers of animals specified in any of the following categories:

- (a) 200 to 699 mature dairy cows, whether milked or dry;
- (b) 300 to 999 veal calves;
- (c) 300 to 999 cattle other than mature dairy cows or veal calves. Cattle includes but is not limited to heifers, steers, bulls, and cow/calf pairs;
- (d) 750 to 2,499 swine each weighing 55 pounds or more;
- (e) 3,000 to 9,999 swine each weighing less than 55 pounds;
- (f) 150 to 499 horses;
- (g) 3,000 to 9,999 sheep or lambs;
- (h) 16,500 to 54,999 turkeys;
- (i) 9,000 to 29,999 laying hens or broilers, if the AFO uses a liquid manure handling system;
- (j) 37,500 to 124,999 chickens, other than laying hens, if the AFO uses other than a liquid manure handling system;
- (k) 25,000 to 81,999 laying hens, if the AFO uses other than a liquid manure handling system;
- (l) 10,000 to 29,999 ducks, if the AFO uses other than a liquid manure handling system; or
- (m) 1,500 to 4,999 ducks, if the AFO uses a liquid manure handling system; and
 - (1) Pollutants are discharged into waters of the state through a man-made ditch, flushing system, or other similar man-made device; or
 - (2) Pollutants are discharged directly into waters of the state which originate outside of and pass over, across, or through the facility or otherwise come into direct contact with the animals confined in the operation.

"Process Wastewater " means water directly or indirectly used in the operation of the CAFO for any or all of the following: Spillage or overflow from animal or poultry watering systems; washing, cleaning, or flushing pens, barns, manure pits, or other CAFO facilities; direct contact swimming, washing, or spray cooling of animals; or dust control. Process wastewater also includes any water which comes into contact with any raw materials, products, or byproducts including manure, litter, feed, milk, eggs, or bedding.