

Permitting Large Dairies

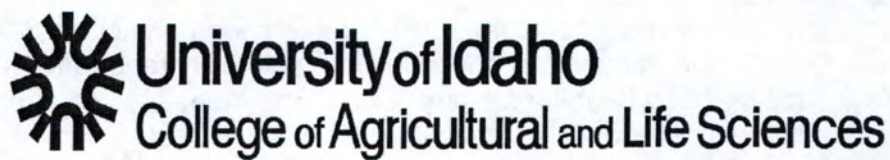
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PERMITTING LARGE DAIRIES¹

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The Idaho Situation and Brief History

Prior to the early 1990's dairy cow numbers in Idaho had been declining or stable. The high point had been reached in 1944 at 277,000 head and then declined until 1978 to only 139,000 head. Dairy policy helped raise that number to 175,000 in time for the dairy reduction program in 1983 and a rebound to 174,000 head for the dairy termination program in 1986. After bottoming at 160,000 head, numbers began climbing and really began accelerating in 1994. At the same time, facility sizes began increasing. At first a 1,000 to 1,500 cow facility was "big". By 1998 you had to have over 2,500 cows to be "big" and a few "Grandé" facilities of between 5 and 10 thousand head have been built.

Pre-MOU

How this looked depended on one's perspective. Dairy men viewed the whole process as "what problem" or "no problem". At the time the EPA was the only regulatory agency in town – rarely we might add – and their view was that these CAFO's had major potential for pollution. For the general public it was a bit of a "Shock and Awe" situation that eventually turned ugly. In their view they simply stank.

The 1990's was a good economic period in Idaho and as the economy grew so did many rural towns. Owning your piece of the country was desirable and the rural urban interface came face-to-face. Often.

Increasing concentration of animals, increased rural subdivisions, greater concern about the potential environmental consequences of the waste issues and water quality issues heightened concern about the advisability of more dairy expansion. To cap things off there was little to no regulation by state and local entities over dairy operations.

The EPA was charged with checking on water quality violations. Their enforcement usually meant coming to town in the spring and citing 6 to 10 facilities for pollution of canals or streams. Fines typically ranged from \$20,000 to \$50,000. This grabbed headlines every spring. The dairies would appeal and normally get the fine reduced to a few thousand dollars. No real change would occur and next year someone else would be the target of enforcement. This persisted through the mid-1990's.

- Most Dairy men failed to see a problem, either real or as public perception
- Access of animals to water ways was an issue

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- Most operations lacked or had inadequate runoff control
- Agronomic application of wastes (solid and liquid) was minimal
- Lagoons would discharge into canals, sometimes by design

A brief Regulatory history

The 1972 Clean Water Act made it illegal to discharge pollutants into waters of the United States from a specific point unless permitted. Idaho is an undelegated state. EPA funded a study in 1985 to look at surface water pollution. In May of 1987 the EPA issued Idaho a general permit to regulate waste water discharges from Idaho CAFO's. That expired in 1992. As a response to the NPDES permit in 1987 Idaho developed waste management guidelines for CAFO's to assist operators and regulators understand best management practices (BMP) to prevent pollution and aid in compliance with State and Federal regulations.

In 1990 the legislature passed the Idaho Nutrient Management Act that required a formal plan for nutrient management in impaired river basins. The Mid-Snake river Basin is designated as impaired. A Mid-Snake plan was developed with input from all interested parties. This was revised in 1997 and continues to be the basis for Idaho dairy regulations.

A proposed draft to revise the EPA permit was developed by EPA with public input in 1993-94. Meanwhile the Dairymen's organization – United Dairymen of Idaho (UDI) – conducted an independent evaluation of the dairy waste issue and reported findings at the annual meeting that fall. Awareness of the situation was raised considerably as a result.

Post-MOU

As a result of the awareness of the situation, potential problems and increasing public scrutiny, UDI formed a task force to change the way regulation was handled. This group met through 1994 and continued into 1995. The memorandum of understanding (MOU) was signed and went into effect in October of 1995. The MOU had the full support of Governor Batt and was signed by the Idaho state Department of Agriculture, Idaho Department of Environmental Quality, the US-EPA and the Idaho Dairy Association.

The MOU converted from a system that was complaint driven and regulated by EPA and DEQ to an inspection system regulated by the ISDA Dairy Bureau. Since the Dairy Bureau is on all dairies 1 to 2 times per year for Grade A/B inspections adding waste compliance to the inspection made sense. The MOU also provided a "Big Stick" with the ability of the Dairy Bureau to stop shipment of milk from farms in non-compliance.

The process was implemented in 3 phases. First were initial inspections of waste systems and identification of potential waste issues. The second phase was to bring dairies into compliance with short term and long term solutions. Inadequate storage of wastes, especially liquid waste, was a problem for many dairies. Of approximately 1150 dairies in 1996, nearly 800 were in non-compliance and over 400 had discharge violations. Lined storage of 180 days and a 25 year 24 hour

weather event need to be met. EQUIP funds aided many operations in affording the compliance measures necessary.

The third emphasis of the program was to address issues around transfer of title on existing facilities, new dairies, construction standards, and planning/zoning issues. The solution to that was legislation requiring comprehensive nutrient management plans for all dairies. That involved training nutrient management planners, producer awareness and education of responsibilities and a due date of July 1, 2001 for plans to be filed with IDSA. In addition, new facilities or ownership changes had to have a plan filed prior to ISDA issuance of a milk permit.

All Idaho dairies did meet the July 1, 2001 deadline for filing CNMP plans. The ISDA dairy Bureau has been reviewing these and many do not comply with at least some of the BMP requirements. In part, this is due to the fact that until the last 120 days only about 150 of 935 dairies had filed or were in the process of developing a plan. Many were rapidly put together to meet the criteria of something to file. Not the criteria of meeting BMP guidelines.

In 2002 the legislature, after extensive pressure from a concerned public, passed odor legislation. That has not been fully implemented as odor standards are being developed.

The Hoops

In Idaho to obtain a permit to build or expand a dairy there are several steps to go through. These are the same in either case. To obtain a permit dairymen start at the local level in counties that have a CAFO ordinance. While marking off the local check list they must also get federal and state permits taken care of.

Federal

Any CAFO in Idaho must comply with all EPA – CAFO/AFO regulations. A new rule went into effect December 15, 2002 requiring all CAFO's to apply for a non-point discharge elimination system (NPDES) permit. As with any good bureaucratic program, there are numerous pages listing a multitude of requirements.

In a nutshell, you first have to be an AFO, and then you might be a CAFO, in which case you are one of three kinds.

An AFO is any facility that confines animals for 45 days in any 12 month period. No vegetation is sustained in the confinement area. An AFO becomes a CAFO if:

- It has 700 or more mature dairy cows it is considered a "large-size" facility
- It has 200-699 mature dairy cows and it has discharged to the waters of the U.S. it is considered a "medium-size" facility
- It has less than 200 mature dairy cows, it has been previously inspected, it has discharged to the waters of the U.S., and has been designated as a CAFO it is considered a "small" CAFO.

If a dairy is a CAFO it must have an NPDES permit. If the operator is not sure they can call EPA and find out if they are. Once an NPDES permit is applied for

the operator must comply with the permit requirements. Major areas for permit compliance include a nutrient management plan, wastewater storage and application, manure storage and application, recordkeeping and annual reporting requirements.

Idaho will receive a single general permit from the EPA for the state. The permit will outline the final specific requirements that dairy producers will need to comply with. The permit is expected to be approved in the fall of 2004.

State

With the MOU in 1995, ISDA handles all regulations for CAFO's in the state. Waste regulations encompass both solid and liquid material, their storage, containment structures and land application. To facilitate the process for operators about six years ago the state began development of the "One Plan" internet site. This brings together various agencies and procedures for agricultural interests. Not only dairy but beef, other livestock and crops can work through the information and permits they may need at the state level all in one place. As the web page defines its concept:

"To provide an efficient way for farmers and agencies to interact so as to reduce the regulatory red tape and cross agency bottle necks farmers have faced. The OnePlan will provide a focal point where a grower can find the various conservation requirements of the assortment of agencies regulating them. More dramatically, The OnePlan site will provide data and downloadable software enabling the grower to develop a single conservation farm plan that will be pre-endorsed by the various agencies, thus streamlining and simplifying the entire regulatory process facing some farmers."

In 2001 when dairies were mandated to have CNMP's filed by July 1 the program was not generally operable. Some certified planners were able to access it but it was not able then to do a complete plan. Now, the ISDA routinely uses it to revise the plans not meeting standards and can usually do a plan in about 4 hours.

In addition to the CNMP a dairy is also often faced with a water right transfer. That is handled by the Idaho Department of Water Resources (IDWR). In western states like Idaho water rights are based on the doctrine of "first in time, first in right" or prior appropriation. In Idaho the right is for a specific amount or flow of water attached to a specific physical acreage.

In the 1980's a lawsuit over flows at Idaho Power's Swan Falls dam for adequate flows to generate power led to a moratorium on issuances of any new permits and eventually to the adjudication of all rights in the Snake River basin. That is 121,684 Idaho water rights. The adjudication process has been in process for 15 years, is 88% accomplished, and is planned for completion in 2005. One thing that has become certain is that the both aquifer and surface water have been appropriated to the max. And more.

In order to obtain water for a dairy the dairyman typically purchases crop ground with a water right. He then applies to IDWR for a transfer of the water from the

crop ground to the dairy location. He also applies for a change of use from crop to livestock. Part of the permit process is a public hearing on the transfer application. Any interested member of the public can testify at the hearing. This has been one of the most commonly used avenues by parties opposed to expansion of the dairy industry to protest. In several cases it has been successful, and has often resulted in delay and additional expense to the dairy to work through the hearing process.

Local

The late great Speaker of the House of Representatives and Irish-American "Tip" O'Neil once stated that "All politics is local". In Idaho local planning and zoning often plays a role in dairy siting.

Counties where cattle feeding or dairy has traditionally occurred have had lives stock ordinances for CAFO's in effect for some time. Other counties haven't had or still don't have CAFO ordinances. Nearly all of Idaho's 412,000 cows reside in south central or south western Idaho. Three south central counties –Jerome, Gooding and Twin Falls – have seen most of the historical development. Canyon County in southwestern Idaho has lately been a growing dairy area. More recently Cassia County, just east of Twin Falls County, has become home to several dairies. All counties conduct a public hearing on any zoning permit application such as a dairy. This provides another forum for input and protest.

5 County Comparison

	Canyon	Gooding	Jerome	Twin Falls	Cassia
Restricted to Specific Zones	Ag, Lt Industrial, Heavy Industrial	Ag Only	Agricultural	Agricultural, Ag Range Preservation	Residential Ag, Ag Prime, Multi-Use
Public Hearing	Y	Y	Y	Y	Y
Annual report to Co.	Y	N	N	N	N
PE Design for Liquid Waste/Odor	Y	N	N	N	N
Signed Contracts for manure disposal on other property	Y	N	N	N	Y – Waste Management Area's
Pest/Odor Plans Req'd	Y	N	Y	N	N
General setback Requirements					
Lagoons/Waste storage	¼ mile to homes	¼ mile to homes	300 ft to homes	¼ mile to homes	¼ mile to homes
Containment structures	300 ft inside property line	300 ft inside property line	300 ft/ inside property line. 50 ft for wells from anything	300 ft inside property line	175 ft inside property line
Subdivisions/Municipal boundaries	1 mile	¾ mile; ½ mile from SR	300 ft	½ ft per AU	¼ mile
Site Inspection	Y	Y	Y	Y	Y
Livestock Density	N	10 AU/AC	10 AU/AC	N	5 HD/AC

					10,000 HD MAX
Lighting Ordinance	N	Y	N	Y	Y
Approval of plan by Fire, Highway, Irrigation, Health districts	Y	Y	Y	Y	Y
NRCS Soils approval for waste plan	Y	Y	Y	Y	Y
ISDA Milk Permit	Y	Y	Y	Y	Y

As a side note, an animal unit (AU) is defined as a mature 1,000 pound cow. All the above counties define a dairy cow as 1.4 AU's.

A quick look at some dairy states

In over 42 states the US-EPA has authorized state agencies to carry out the NPDES program for CAFO operations. This allows the dairyman to deal only with state agencies and satisfy federal regulatory requirements. States also have specific regulatory programs for air and water quality protection that must be met.

The West

Much of the recent growth has been in a few western states. Most notably in California, the largest dairy state since the early 1990's. Other western states have also been home to increasing numbers of dairy cows. In addition to Idaho, Arizona, New Mexico, and Texas have gained in prominence. This is in contrast to other traditional milk sheds where cow numbers have often been stable or declining. A few states were randomly selected to contrast differences in how dairy permits are regulated.

California

The permit process in California is delegated to the State Water resources control board. However, implementation is accomplished through nine Regional Water Quality Control Boards (RWQCB) which each stipulate the waste discharge requirements in their respective region. Region 5, the Central Valley Board, governs the fate of the major milk shed in the state. Until last year most dairies operated under a conditional waiver of waste discharge requirements. Legislation resulted in sun setting of the conditional waiver on December 31, 2002. (Technically, the Board issued a conditional waiver on 12/6/02 and it was rescinded 3/13/03--however, no one sought coverage under this waiver as it was rescinded before its first filing deadline) In December of 2002 US EPA finalized its CAFO rule. All dairies of greater than 700 milking and dry cows have a duty to apply for coverage under an NPDES permit. As of April 2, 2004 a draft permit has not been available for public comment. It is anticipated that a draft will be available in spring for comment.

Application of manure to land (including a cow making a cow pie) requires a waste discharge requirement. This is a discretionary land use activity and triggers the need to comply with the California Environmental Quality Act (CEQA). Parties seeking to apply for a permit for a new facility or expansion of an existing facility would need to apply to the RWQBC as well as meeting local P

& Z building permit requirements. First the applicant (dairy operator) typically works with a consulting firm to prepare the documentation to address CEQA. Then it is submitted to the lead agency for review. The lead agency makes the document available for public review, and then holds a public meeting to receive comments on proposed land use activity. The lead agency can require modifications to the document and hold a second public meeting. At present most RWQBC's have requested that local counties be the lead CEQA agency. Required documentation includes analysis on ALL resources including water, uses of water, lighting, biological habitat, etc., etc. The CEQA documentation includes an Environmental Impact Report that clearly shows the adverse effects of the project. The process has taken from over a year up to three years. Basically, the recordkeeping requirements have jumped and the cost has gone up. An annual report will be required showing that nutrient management plans are in effect and how they are working. All dairies were required to have taken the Environmental stewardship classes by the end of 2003. A California Dairy Quality Assurance (CDQA) program can assist by giving the dairyman an evaluation of the facility that is private. This allows for correcting problems before trying to meet the EPA certification which will be required by the end of 2006. For the latest information you can go to the (California Dairy Quality Assurance Program) CDQAP website <http://www.cdqa.org>.

New Mexico

While New Mexico has had regulations for groundwater protection in place for years, the buildup of dairies has heightened the attention of them. Ground water is the main water source for much all of New Mexico including agriculture. The two main agencies at the state level are the Ground Water Quality Bureau and the New Mexico Environmental Department. The federal CAFO regulations have a large overlap with New Mexico state regulations. Currently the state agencies are working with the dairy industry to reduce duplication.

To build or expand a dairy in New Mexico, the applicant must submit a ground water discharge permit application, plans for operation, monitoring and closure that are deemed appropriate for the waste system, plans for the entire waste treatment and disposal system. Monitoring wells may be necessary to assure that ground water quality is being maintained. The public is notified and a hearing on the proposed application is held. The Environment department can then approve the permit. Or request corrective action, or deny the permit.

Texas

Texas is an EPA delegated state and operates the Texas Pollutant Discharge Elimination system or TPDES program. CAFO permits are issued through the Texas Commission on Environmental Quality (TCEQ). This includes the dairy site, lagoons, and other point discharge concerns. The Texas State Soil and Water Conservation Board (TSSWCB) has jurisdiction over non point discharge sites not regulated by the TCEQ for wasted application and conservation matters to farm ground.

Applications include facility information, technical information on the waste management system, location, and a pollution prevention plan and water quality management plan. When the TCEQ accepts the application, a public hearing process is initiated, a public hearing held, and a determination made on the status of the application.

The Rest

States with a long standing tradition of dairying are also seeing applications for larger dairies as the industry consolidates. That has brought about changes to state laws that often were in place for the traditional "family farm" operations.

Wisconsin

Wisconsin has just passed legislation changing dairy siting regulation in the state. The new law was based on recommendations of a 21 member study committee that had broad representation of concerned parties. This pertains to livestock operations, not just dairy; the standards must be "designed to promote the long-term viability of animal agriculture in Wisconsin".

Rule-making will be an important part of the overall process in arriving at the state standards. It is assumed that the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) will appoint a rule advisory committee to assist in this project, as is common with this and other agencies in this state.

A person who lives within two miles of the site, or who owns land within this area, may appeal the decision of a local government to the state Livestock Facility Siting Review Board, which will have seven members representing specific groups, nominated by the Secretary of DATCP and confirmed by the state Senate.

Essentially the new law requires local governing entities to conform to standardized code for approving applications to expand or site new facilities.

The law includes:

- DATCP will determine best management practices and performance standards livestock operations will be required to use via the rule making process.
- Counties will have to use the DATCP standards to determine whether an application is approved or denied.
- Counties must approve livestock siting applications that conform to the DATCP standards.
- Operations of more than 500 animal units must use DATCP standards except in certain situations.
- Counties can adopt more stringent standards only if the provisions are necessary for public health and safety and supported by findings of fact.

As with other states, the nutrient management, NPDES and other requirements will still apply as part of the DATCP standards.

Ohio

Most permitting and regulation of large dairies was transferred to the Ohio Department of Agriculture (ODA) in 2002.

Size of operation	Discharge?	Permits Required	Regulatory Authority
Less than 1,000 animal units ‡	No	No permits	ODNR
Less than 1,000 animal units	Yes	Individual NPDES	ODA*
Greater than 1,000 animal units	No	Individual Permit to Operate or General Permit to Operate	ODA
Greater than 1,000 animal units	Yes	Individual Permit to Operate and Individual NPDES or General Permit to Operate and General NPDES	ODA for Permit to Install, Permit to Operate, or General Permit to Operate; ODA for NPDES permits*
Greater than 10,000 animal units	No	Individual Permit to Operate	ODA
Greater than 10,000 animal units	Yes	Individual Permit to Operate and Individual NPDES	ODA for Permit to Install or Permit to Operate; ODA for NPDES permit*

‡ When the USEPA did away with the term Animal Units Ohio followed suit. It now defines a "Large CAFO" as 1000 head of beef cattle or 700 head of dairy cows * ODA was given NPDES authority in August 2002

The first step for an Ohio dairyman intending to build a facility of 700 head or more or expand to that size is a permit to install. The PTI includes information about the applicant, the size of facility, water use, site map, soils information, manure handling and storage, and construction plans. The PTI is followed by a Permit to Operate. As part of the permit application a detailed manure management plan must be submitted. Also an insect and rodent control plan, a mortality management plan and an emergency response plan are required. Detailed information may be found at ODA's Livestock Environmental Permitting Program's website at: <http://www.ohioagriculture.gov/lepp.stm>

A Federal NPDES permit must be applied for 180 days before beginning operation of the CAFO. At the current time that permit is from Ohio EPA, with the state requesting the delegation to be transferred to ODA in the future.

According to the Ohio code, county commissioners and township trustees, as well as their boards of zoning and zoning appeals, cannot restrictively zone agriculture on parcels of land consisting of five or more contiguous acres. This limits local governing boards from selectively restricting agricultural activities.

A public hearing will likely be required on larger facilities or expansions. ODA can then issue a final determination on the application.

New York

As with many other states, New York's Department of Environmental Conservation requires CAFO's in the state to operate under a general permit. Part of that permit is a CNMP developed by state-certified planners. Both medium (300-999 AU's) and large (1000+ AU's) CAFO's are regulated. Farms are inspected for compliance with their CNMP.

As for local zoning or other ordinances, state right-to-farm provisions prohibit localities from restricting sound farming activities in agricultural districts. Proposed legislation from municipalities is reviewed by New York's Department of Agriculture & Market's Division of Farmland Protection to see if they comply with the law. It is one of the few instances where statewide regulation overrides a strong tradition of local "home rule."

In general a dairyman will need an agricultural waste management plan, site plan, wastewater storage and runoff control, and State Pollution Discharge Elimination System (SPDES) permit. In addition, NRCS-BMP's are considered minimum generic BMP's for all CAFO's.

In Summary

Increased public concern over the location and pollution potential from large confinement dairies has led to a number of solutions. Many involve state level regulation "guiding" local regulation. In other cases local governance supercedes statewide regulatory judgment. Overriding all states is US-EPA's CAFO regulations and the NPDES permit. In most cases state and local agencies have worked out a division of regulation to suit the situation.

As more scrutiny is applied to agricultural practices the onus will be on farmers to be "good neighbors" as defined by the neighborhood. That is possible but the world is also more complicated than it used to be.

