DNMP – Implementation Progression (Timelines)

1998

Act establishing program requiring nutrient management plans to be developed, approved and certified, establishing NRCS practice standards as the default technical standards and requiring inspections. Compliance is performance based so field enforcement is tied to having a discharge.

1998-99

Conservation Commission established 20 minimum elements required for the plans to be approved. Elements included both infrastructure and management elements to protect both surface and groundwater.

1999- July 2002 CD and NRCS: Plan development and approval required

- Infrastructure investment by state and NRCS: State funding provided to conservation districts to develop the plans and for cost share to dairies to implement the plans. Implementation included construction or improvements of infrastructure for manure collection and storage in lagoons, concrete pads and curbing to contain contaminated water, gutters and downspouts to keep clean water clean, pumps and irrigation equipment.
- Planning and various calculations were done to balance and properly manage nutrient storage capacity and proper applications on land managed by the dairies. Generally, implementation of agronomic management practices was postponed while focus was on getting infrastructure in place.

1998-July 2002 Ecology inspections, compliance and CAFO permit

- Up to 7 inspectors located in Yakima, Lacey, Bellevue and Bellingham spent some part of their time on systematic inspections of dairies, identifying and documenting surface water quality issues from facilities and fields.
- Close to 100 dairies had documented discharges and were put under the Dairy General CAFO permit which required full implementation of their dairy nutrient management plan.
- As infrastructure improvements were constructed and most plans were completed.

July 2002-Dec. 2003 Plan certification (implementation) required

- Implementation requires ongoing facility management and agronomic applications. Districts and NRCS continued with infrastructure improvements and worked to some extent with operators on soil and manure testing, cropping, application methods and timing to ensure agronomic applications.
- Compliance continued to focus on surface water impacts.
- Ecology tracked plan approvals and certification.

July 2003

- Program shifted to WSDA with half the inspection resources (2 ½ inspectors).
- Initial program organization was slow but in place by spring 2004 and fully functional by July 2004.
    - WSDA led meetings and discussions of the Development and Oversight Committee (DOC) and sub-committees on state livestock and CAFO program elements, including compliance with water quality standards surface and ground, technical standards and regulatory requirements to meet EPA delegation requirements.

2004 WSDA implementation

- WSDA staff looked closely at records and discussed with operators the need to keep and use them. Inspectors identified need for operators to have good direction on soil and manure testing. They noted informally that maybe only 15% were keeping and using records to manage agronomic applications.

- Program determined that 2 ½ inspectors was insufficient to cover all of Puget Sound and Whatcom. Consequently staff coordinated with industry leaders and other stakeholders in order to get funding for additional Puget Sound inspector.
    - Ecology begins new CAFO permit development and includes groundwater monitoring, Ecology negotiated with stakeholders to drop monitoring wells from the permit, to include an element focused on lagoons for potential leaking and to increase emphasis on records under the permit. Ecology agreed to put more emphasis on groundwater in Whatcom and Yakima.
    - DOC meetings continued and draft legislation was developed expanding dairy act to all livestock Animal Feeding Operations, outlining CAFO program to be consistent with federal program and incorporating necessary authority for WSDA.

2005 WSDA program development

- Developed fact sheet for operators on soil and manure testing in cooperation with other technical staff from WSU, Ecology, NRCS and CDs.
- Program implementation issues raised by inspectors:
    1. Some plans were not very detailed, difficult for operators to use or did not seem to adequately address WQ issues at operations. Discussions with operators and CD planners did result in some improvements.
    2. Identified state limitation to require ongoing DNMP implementation once certification was achieved, and need to update plans as operations changed. Determined state did not have authority to write rules to improve situation.
    3. Lagoon management issues resulted in 'emergency' need for winter applications to protect integrity of lagoons.
    4. 3rd party applicators noted as not getting the same message on agronomic applications and field conditions. Did some communication with them on a case by case basis.
    5. Lack of authority to gain access to a dairy site if access was denied
- Fall 2005 – Lagoon sweeps started this and every fall to check lagoon management and capacity going into winter, primarily in North Puget Sound counties.
- Groundwater nitrate issues in Lower Yakima were raised through complaints on condition of some private wells. WSDA organized some meetings among Ecology, WSDA and local Health with minimal outcomes for homeowner involved.
    - DOC legislative compromise negotiated out but smaller targeted bill was passed
    - EPA CAFO rule court decision limited permits to facilities with actual discharges

2006 Expanded technical assistance role

- Initiated 'Inter-agency Livestock Technical Assistance Committee' with cross agency representation. Over two years group assisted Ecology in identifying process to evaluate CAFO lagoons for possible leakage, developed a Technical Assistance Referral process and form for WSDA to use with Conservation Districts and further discussed soil and manure testing and use of data to make management decisions on crop applications.
- Soil test data use: Due to variability in soil testing results, determination was to look at data from at least 3 years to get sense of trend. Soil test trigger numbers were set at: 45ppm N as needing attention to reduce levels, used 30 ppm as a level of concern; 100 ppm P for Eastern WA and 120ppm P for Western WA as the level requiring attention. These levels became regular part of inspection discussions when records were reviewed.

- Expanded DOC discussed state livestock program and WSDA delegation in terms of the federal court decision. After starting all over with a new statute, decision was made to go forward with a split state program that had Ecology responsible for the permit and non-dairy AFOs and WSDA responsible for the dairy program

2007

- Staff noted seeing soil N and P levels dropping at some sites, comments made by some dairy operators that they realized they did not need to buy any or as much fertilizer

2008

- After a series of compliance actions related to poor management of silage, staff worked with other partners to develop a fact sheet on the WQ impacts of silage leachate and better management.
- Discussed with dairy industry the need for record keeping in order to ensure operators have the tools to make agronomic applications.
- WSDA began discussions with Ecology on updating the MOU
  - Oct 2008 Yakima Herald series on groundwater prompted new discussions with dairy industry on groundwater protection and importance of records and agronomic applications
  - DOC sunset

2009

- Legislation passed amending statute to establish warrant authority to access dairies and all records and making it a violation of the statute to not keep records required to show agronomic applications.
- Fact sheet on new records requirement developed and mailed to all dairies.
- WSDA held livestock stakeholder meeting with some discussion regarding implementation of the split livestock program.
- New MOU with Ecology was finally completed and signed
- WSDA began developing records rule to define required records and establish a penalty matrix and worked with local state and federal technical staff on language and approach.
  - Meetings among state and local agencies and public held discussing the groundwater issues in Lower Yakima Valley.
  - WSDA volunteered to pull together initial overview of what was then known about the valley ground water and uses.
  - 3 years of annual reports from permitted CAFOs confirmed there were high nitrate levels at some dairy facilities
  - Ecology initiated effort to move dairy program back to Ecology (Natural Resource Reset)
- Changed program name from 'Livestock Nutrient' to 'Dairy Nutrient' to reflect statutory program focus on dairies
- Range rules to be used during public disclosure process were finalized and adopted as required by RCWs 43.17, 42.56, and 34.05.

2010 Program constraints, compliance issues and best management practices

- A summary of statutory constraints on program effectiveness was developed in preparation for legislative discussions
- Legislation amended statute to establish penalty for records violation and the Natural Resources Reset effort to move the program was dropped

- As a part of cross agency discussions regarding the dairy program and possible improvements, program enforcement actions were analyzed. Nine main categories of compliance issues were identified. Four related to field applications three related to facility infrastructure, one for animal access to surface water and one for problems with nutrient management plan. Applications made with improper field conditions were the single most common problem.
- After a series of compliance actions related to improperly managed filter strips, staff worked with other agency technical staff to develop a fact sheet on proper conditions and use to be effective for both surface and ground water protection.
- Worked with Ecology and NRCS on Bartelheimer lagoon failure in Snohomish Co.
- Worked with stakeholders on Samish River Watershed bacteria issues.
- Participated in various discussions regarding Best Management Practices to protect water quality triggered in part by Ecology's riparian manual
    - Ecology issued compliance order to several permitted dairies with high nitrates
    - Puget Sound funding by EPA to address nutrients and bacteria among other items – discussion among agencies on nutrient management
    - EPA carried out extensive groundwater and source sampling as part of effort to better inform groundwater protection efforts in Lower Yakima Valley

2011

- Expanded activity in Samish Watershed to include some non-dairy work to support Ecology and County in response to Governor's directive to make better progress.
- WSDA coordinated with Ecology on review of NRCS lagoon assessment tool developed partly in response to Bartelheimer failure and partly due to aging of early lagoons. Later signed a grant contract with NRCS to use the tool to do lagoon assessments in Puget Sound. Assessment discussions included concerns over difficulty to evaluate groundwater impact of existing structures.
- Completed draft records and penalty rule revised after input from technical and dairy stakeholders but held back to resolve certain issues with Ecology regarding the penalty matrix
    - 3DT talks rise out of BMP discussions, coordination opportunities regarding Samish work, MOA development between Skagit CD and Ecology and communication issues around the Ecology and WSDA MOU

2012 Lagoon assessment focus

- Mar- Dec – Lagoon assessments conducted in North Puget Sound counties to field test lagoon assessment process for NRCS
- Sep-Dec - 3DT committee work to evaluate the technical and policy gaps to prevent negative impacts from land applications of manure (WSCC, ECY, WSDA)
- Oct – WAC 16-611 Nutrient Management finalized