



TO: The Honorable Kerry Donovan, Chair
Agriculture & Natural Resources Committee

The Honorable Jeni James Arndt, Chair
Rural Affairs & Agriculture Committee

FROM: Colorado Department of Public Health and Environment
Environmental Agriculture Program

DATE: March 1, 2021

SUBJECT: Environmental Agriculture Program Annual Report

Reporting Requirement

Colorado Revised Statute, §25-8-502(1.7)(a), requires the Department of Public Health and Environment to report on or before March 31 of each year to a joint session of the senate and house agricultural committees on the water quality protection activities of the Environmental Agriculture Program (“Program”). The report must include information on the number of permits processed, the number of inspections conducted, the number of enforcement actions taken, and the costs associated with all program activities during the preceding year.

Program Duties

The Program administers state and federal air and water quality requirements specific to animal feeding operations in Colorado. Included under the umbrella of animal feeding operations are large concentrated animal feeding operations (“CAFOs”), housed commercial swine feeding operations (“HCSFOs”), and smaller animal feeding operations, (“AFOs”).

The Program assures compliance with:

- State-only odor and water quality discharge requirements specific to HCSFOs;
- Federally-delegated water quality requirements applicable to large CAFOs; and
- State-only best management practices for small AFOs.

In addition, the Program:

- Writes discharge and odor emissions permits;
- Conducts compliance inspections;
- Develops and implements regulations and policies, and provides technical assistance;
- Responds to complaints; and
- Obtains compliance through enforcement proceedings as necessary.



A summary of the Program’s 2021 budget and Fiscal Year 2020 performance metrics are provided below.

Budget		
Funding		
Revenues from fees	\$479,823 (water)	\$55,841 (air)
CAFO General Fund	\$101,507	
Total Funding	\$637,171	
Expenses		
4.2 FTE, operating, indirect, etc.	\$558,409 (water)	\$54,221 (air)
Total Expenses	\$612,630	
Regulated Community		
Unpermitted (Registered) CAFOs	112	
Permitted CAFOs	99	
Permitted HCSFOS	9 water	70 air
Known AFOs	215	
Permit Processing		
New CAFO Permits Issued	5	
CAFO Permit Renewals	0	
CAFO Permit Amendments	9	
New HCSFO Permits Issued	0	
HCSFO Permit Renewals	0	
HCSFO Permit Amendments	6	
Inspections		
CAFOs/AFOs	43	
HCSFOs (water/odor)	25	
Enforcement		
Compliance Advisories	7	
New Formal Enforcement Actions	0	
Complaints		
AFO	10	
CAFO	15	
HCSFO (odor)	0	



Other Significant Program Activities

CAFO Inspections - The COVID-19 pandemic impacted the last quarter of the 2020 inspection year. However, the program still completed all 43 scheduled inspections of permitted and registered CAFOs. Compliance rates continue to be high with 95% of permitted facilities and 97% of registered facilities in compliance with regulatory and permitting requirements. The first half of inspection year 2021 has also been impacted by the pandemic but the program is on pace to again complete all the scheduled inspections of CAFO facilities.

Inspection of HCSFOs typically take place during the spring so the shutdown and travel restrictions implemented as a result of the pandemic impacted the program's ability to inspect all HCSFO facilities. The program had completed 25 of the 93 scheduled inspections when stay-at-home order and travel restrictions were implemented. The program continued to look for opportunities to complete the inspections by the end of the 2020 inspection year until it became clear that would not be possible. The program reached out to producers and based on the historic level of compliance at the HCSFO facilities exceeding 99% and the potential health risk to individuals involved in the inspection process, we agreed to suspend inspection activities at HCSFOs until inspection year 2021. Barring any unforeseen complications arising from the ongoing pandemic, routine inspection of all HSCFO sites will be completed during the current inspection year.

Outreach, Training and Technical Assistance - In 2020, the program collaborated with the regulated community, local health departments, other state agencies, and agricultural trade groups to address concerns related to the COVID-19 pandemic. The program was involved in discussions related to supply chain disruptions and helped develop guidance documents on the disposal of excess milk and the disposal of livestock carcasses that would have resulted from herd culling due to processing plants being shut down or operating at limited capacity. To avoid culling and the waste of livestock resources, the program worked with producers and identified regulatory flexibilities that allowed them to appropriately manage their operations during this unprecedented event. As a result of these efforts, Colorado CAFOs have been able to maneuver through the changing COVID landscape without the need to cull or waste livestock resources.

Nitrogen Concerns in Rocky Mountain National Park (RMNP) - During 2020, the program continued participation in the RMNP Agricultural Subcommittee's activities to address elevated levels of nitrogen in the park. Work continued in the core strategic areas of research, monitoring, and outreach to promote voluntary ammonia emissions reductions in the Front Range agricultural community.

2020 research efforts focused on the evaluation of best management practices (BMPs) identified through a producer survey completed in 2019. The intent of the survey was to gain an understanding of existing agricultural BMP efforts and areas where additional outreach and engagement could be made. Analysis of the survey results identified a range of BMPs being implemented and has informed the development of fact sheets and a second BMP survey that will support the objectives of the NRCS Conservation Innovation Grant (CIG). An NRCS CIG grant proposal was submitted with the aid of researchers from Amarillo and Bushland, Texas. The proposed work will help determine the efficacy and limits of BMPs as well as informing the recommendations for future BMPs.



The Agricultural Subcommittee also identified additional research priorities in regard to ammonia deposition dynamics. A proposed ammonia bi-directional flux study aims to improve model accuracy for ammonia transportation and deposition in the park.

Monitoring and outreach efforts in 2020 included continued use of the Early Warning System (EWS), which provides alerts to producers when weather conditions may increase deposition of nitrogen into RMNP. Nearly 100 stakeholders and producers are currently on the list to receive EWS alerts. There were three warnings issued in 2020.

The Subcommittee also conducted a preliminary analysis of air quality monitoring during the COVID-19 Pandemic. Reductions in nitrogen concentrations due to reduced activity during the pandemic were noted throughout the United States. However, preliminary analysis has shown no clear evidence of lower concentrations of nitrogen at RMNP in 2020. It is possible the most significant decreases were missed as samples could not be collected during the various stay-at-home periods. Additional work on the pandemic monitoring data is continuing.

Program Staffing - Staffing for the Environmental Agriculture Program remained consistent through 2020. Staff continues to improve work processes and production efficiencies that provide timely and exceptional customer service to the regulated community and to the citizens of Colorado.

For additional information or questions:

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