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Agency of Agriculture Food & Markets

Julie Moore, Secretary
Vermont Agency of Natural Resources
1 National Life Drive
Davis 2
Montpelier, Vermont 05620-3901

February 15, 2018

Dear Secretary Moore,

Enclosed please find the 2017 Annual Report for the Agricultural Water Quality Enforcement Program. Please note that this is a comprehensive enforcement report that includes inspections conducted to determine compliance with the Required Agricultural Practices (RAP) Regulations and Medium and Large Farm Operations permits. The report summarizes the efforts of the Agency's five Water Quality Specialists assigned to the Medium and Large Farm Operations Programs, five Water Quality Specialists assigned to the Small Farm Operations Program, an Agricultural Water Quality Section Chief, a Chief Policy Enforcement Officer, an Enforcement Coordinator, a Program Technician, a state-wide Conservation Reserve Enhancement Program (CREP) Coordinator, and six Agricultural Engineers.

The Annual Report's Appendix presents our compliance and enforcement efforts in graphic form. We may use this Appendix as a stand-alone document that will provide a more easily "digestible" representation of our efforts over the past year.

If you have any questions or concerns regarding this report, please feel free to contact Laura DiPietro, Water Quality Division Director, (802) 595-1990, or David Huber, Chief Policy Enforcement Officer, (802) 461-7160, of the Agricultural Resource Management Division.

Sincerely,

A handwritten signature in blue ink, appearing to read "Anson B. Tebbetts".

Anson B. Tebbetts, Secretary
Vermont Agency of Agriculture, Food and Markets



cc: Emily Boedecker, Commissioner
Department of Environmental Conservation

Peter LaFlamme, Director
VT DEC Watershed Management Division

Representative Carolyn Partridge, Chair
House Committee on Agriculture and Forestry

Representative David Deen, Chair
House Committee on Natural Resources, Fish, and Wildlife

Senator Robert Starr, Chair
Senate Committee on Agriculture

Senator Christopher Bray, Chair
Senate Committee on Natural Resources and Energy

Vermont Agency of Agriculture, Food and Markets Agricultural Water Quality Enforcement Program 2017 Annual Report

Required Agricultural Practices Regulations Enforcement
Medium Farm Operation General Permit Enforcement
Large Farm Operation Individual Permit Enforcement
Engineering and Technical Assistance

Dear Reader,

February 14, 2018

The Water Quality Division of the Vermont Agency of Agriculture, Food and Markets (VAAFAM) implements a comprehensive approach to the regulation of farms in the State in order to best protect water resources. The development of a three-tiered approach to the regulation of Vermont farms allows for a logical progression in regulatory oversight as a farm grows in size from a Small Farm Operation (SFO) subject to regulation under the Required Agricultural Practices (RAPs) Regulations, to a Medium Farm Operation (MFO) regulated under the state's MFO General Permit, to a Large Farm Operation (LFO) regulated under an individual LFO permit.

In 2016, the Water Quality Section of the ARM Division was heavily focused on revising the RAPs and hiring new staff members to carry out the additional work mandated by Act 64. In 2017, we utilized our increased staff capacity to focus on:

- evaluating farms of all sizes for compliance with the newly revised RAPs;
- conducting inspections of Certified Small Farm Operations (CSFOs) and introducing them to the revised RAP requirements;
- implementing an accelerated schedule of MFO inspections (from once every five years to once every three years as mandated by Act 64);
- working with the newly formed RAP Development Committee, composed of farmers, who help inform the Agency on process and procedure as the Agency implements the multifaceted RAP Rule;
- enhancing communication efforts to the farming and non-farming community regarding the Agency's agricultural water quality protection regulations;
- conducting staff training on nutrient management planning, RAP implementation, investigative principles, and report writing skills;
- conducting compliance checks to ensure that farmers receiving funds under the Farm Agronomic Practices (FAP) grant program are complying with the terms of their agreements;
- conducting compliance checks on farms as requested by land conservancy and lender groups;
- revising the MFO General Permit as required by law for another five-year period;
- amending the RAPs to include requirements for reducing nutrient contributions to waters of the State from subsurface tile drainage, as required by Act 64; and,
- redrafting the Memorandum of Understanding (MOU) between the Vermont Agency of Natural Resources (ANR) and VAAFAM to guide our cooperative enforcement efforts.

TREND ANALYSIS OF ENFORCEMENT EFFORTS

Figure 1 provides a trend analysis of the Agency’s Agricultural Water Quality enforcement efforts since 2010. Inspection/investigation numbers have increased steadily starting in 2015 as the Agency has added additional staff to work in the Water Quality Division. Of all complaints received by the Agency in 2017, 20% resulted in the farm operation receiving an enforcement action. Overall, there was a 115% increase from 2016 to 2017 in farms receiving enforcement actions. There was an increase of 48% in 2017 in the number of farm inspections compared to the prior seven-year average and enforcement actions also increased in 2017 compared to the prior seven-year average by 127%. **The overall compliance rate for farm operations in 2017 was 84%.**

- Please note that the number of enforcement actions issued to farms spiked in 2012 and 2013 as a result of the Agency taking enforcement action against MFOs that either failed to submit their Notice of Intent to Comply (NOIC) with the renewed MFO General Permit or failed to send in their MFO Annual Report.
- Please note that the total number of visits to farms each year far exceeds the number of inspections/investigations reported in this graphic. The additional visits not included in this graphic include technical and engineering assistance visits, which are quantified within this report.

Figure 1. Water Quality Enforcement Efforts From 2010 through 2017.

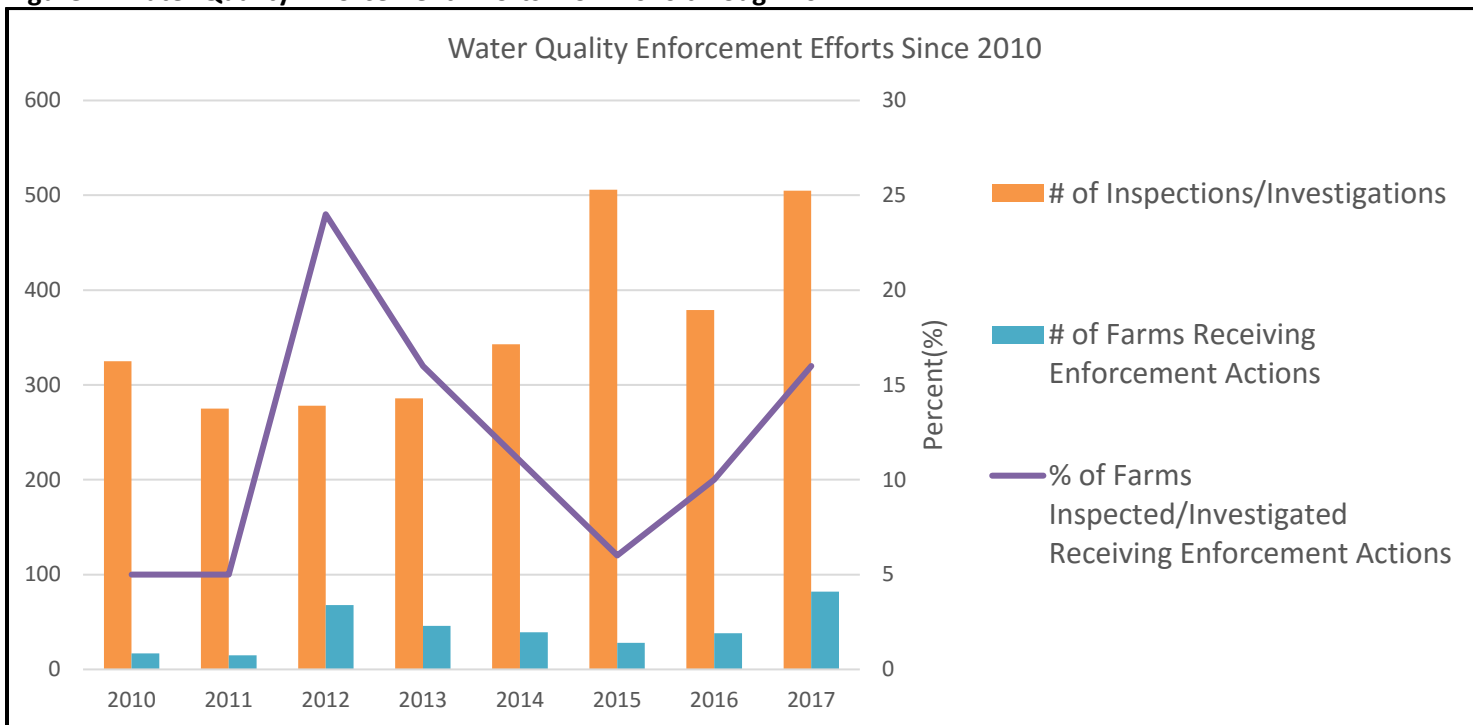


Table 1. The Numbers of Enforcement Efforts Spanning the Years from 2010-2017.

Numbers of Enforcement Efforts from 2010-2017								
Year	2010	2011	2012	2013	2014	2015	2016	2017
# of Inspections/Investigations	325	275	278	286	343	506	379	505
# of Farms Receiving Enforcement Actions	17	15	68	46	39	28	38	82
% of Farms Inspected/Investigated Receiving Enforcement Actions	5	5	24	16	11	6	10	16

Information about the RAPs, the MFO general permit program, and the LFO individual permit program can be found at the following links:

- RAPs
<http://agriculture.vermont.gov/RAP>
- MFO General Permit Program
<http://agriculture.vermont.gov/water-quality/regulations/mfo>
- LFO Permitting Program
<http://agriculture.vermont.gov/water-quality/regulations/lfo>

The following report summarizes the Agency’s inspection, enforcement, and engineering/technical assistance efforts over the 2017 calendar year. The report summarizes the efforts of five Water Quality Specialists assigned to the Medium and Large Farm Operations Programs, five Water Quality Specialists assigned to the Small Farm Operations Program, an Agricultural Water Quality Section Chief, a Chief Policy Enforcement Officer, an Enforcement Coordinator, a Program Technician, a state-wide Conservation Reserve Enhancement Program (CREP) Coordinator, and six Agricultural Engineers.

In 2017, the Agency performed a total of 978 inspections/visits to farms to determine compliance with the RAPs, the MFO General Permit and Rule, the LFO Individual Permits and Rule, and to offer technical and engineering assistance to help farms comply with regulatory requirements. “Inspections” represent a formal inspection done on a farm to assess compliance with a rule and/or permit, and include “Programmatic Follow-up Inspections” performed to resolve issues identified during inspections that did not go to enforcement, and to discuss regulatory programs and permitting issues with farms, and “Enforcement Action Follow-up Inspections” conducted to specifically evaluate a farm’s progress in correcting issues cited in enforcement actions. “Visits” are representative of technical and engineering assistance on the ground.

71 farms received a total of 80 formal enforcement actions, and 11 enforcement actions are pending. 18 farms were referred to the Vermont Department of Environmental Conservation (DEC) for suspected direct discharges of wastes to surface water, and two farms were referred to the Attorney General’s Office for further enforcement.

SFO COMPLIANCE REPORT

RAP Compliance and Assistance: In 2017, a total of 523 inspections/visits were made to SFOs. Of these, 194 inspections were conducted to assess compliance with the RAPs. 329 visits were conducted to offer technical and engineering assistance.

Table 2. Small Farm Operation Inspections/Visits

Total Number of SFO Inspections/Visits	523
SFO Inspections	194
Complaints from the public	74
▪ <i>Complaints resulting in enforcement</i>	<i>11 issued / 4 pending</i>
Compliance checks	48 facilities (representing 45 SFOs)
▪ <i>Compliance checks resulting in enforcement</i>	<i>5 issued</i>
SFO Programmatic Follow-up Inspections	66
SFO Enforcement Action Follow-up Inspections	6
SFO Technical Assistance / Engineering Visits	329

The 45 SFOs assessed for compliance represent a total of 48 individual facilities inspected. One SFO can consist of more than one facility managed as part of the SFO. Each facility is subjected to a comprehensive compliance assessment. As a result of compliance efforts conducted in 2017, 16 SFOs received formal enforcement actions for violations of the RAPs and four actions are pending. 11 SFOs were referred to DEC for suspected direct discharges of waste to surface water.

Table 2a – Small Farm Operation Enforcement Actions

Enforcement Actions	Number of Cases
Corrective Action Letter (CAL)	12
Cease and Desist Order (CDO)	4
Notice of Violation with Administrative Penalty (NOV)	-
▪ Assurance of Discontinuance (AOD)	-
▪ Final Order	-
Actions Pending	4
SFO In-Field Corrections (verbal warnings)	3
SFO Referrals	-
Department of Environmental Conservation (DEC) ¹	11
Attorney General's Office (AGO)	-
SFO Cases in Continuance	17

MFO GENERAL PERMIT COMPLIANCE REPORT

MFO General Permit Compliance: In 2017, a total of 254 inspections/visits were made to MFOs. Of these, 155 inspections were conducted to assess compliance with the State's MFO General Permit, MFO Rule, and the RAPs. 99 visits were conducted to offer technical and engineering assistance.

Table 3 – Medium Farm Operation Inspections/Visits

Total Number of MFO Inspections/Visits	254
MFO Inspections	155
Complaints from the public	20
▪ <i>Complaints resulting in enforcement</i>	<i>2 issued / 2 pending</i>
Compliance checks ²	101 facilities (representing 53 MFOs)
▪ <i>Compliance checks resulting in enforcement</i>	<i>22 issued / 4 pending</i>
MFO Programmatic Follow-up Inspections	22
MFO Enforcement Action Follow-up Inspections	12
MFO Technical Assistance / Engineering Visits	99

The 53 MFOs assessed for compliance represent a total of 101 individual facilities inspected. One MFO can consist of more than one facility managed as part of the MFO. Each facility is subjected to a comprehensive compliance assessment. Act 64 now requires that MFOs be inspected every three years, as opposed to the previous five-year inspection cycle. 99 visits to MFOs involved providing technical/engineering assistance to farmers.

In 2017, 42 MFOs received a total of 49 formal enforcement actions, and six enforcement actions are pending. Specifically, as a result of compliance visits conducted in 2017 (Table 2), 22 MFOs received a total of 24 formal enforcement actions for violations of the MFO General Permit and/or the RAPs that directly relate to water quality and

¹ Under a MOU with ANR, cases involving suspected direct discharges of waste to water are referred to DEC for investigation.

² The total number of compliance checks includes 5 visits conducted in cooperation with DEC and/or USEPA to evaluate a farm operation for compliance with the Federal Concentrated Animal Feeding Operation (CAFO) permit requirements.

an additional six enforcement actions are pending for similar violations. 20 farms received a total of 25 enforcement actions for either failing to pay the Annual MFO Operating Fee or failing to submit their Annual MFO Compliance Report. The Agency does not consider these actions to be water quality-related, so they are not represented in Table 2, but they are included in Table 2a below. Five MFOs were referred to DEC for suspected direct discharges of waste to surface water.

Table 3a – Medium Farm Operation Enforcement Actions

Enforcement Actions	Number of Cases
6 V.S.A. Section §4991(7) Consultation Letter	-
Corrective Action Letter (CAL)	33
Cease and Desist Order (CDO)	4
Notice of Violation with Administrative Penalty (NOV)	10
▪ Assurance of Discontinuance (AOD)	-
▪ Final Order (FO)	2
Actions pending	7
MFO In-Field Corrections (verbal warnings)	4
MFO Referrals	-
Department of Environmental Conservation (DEC) ³	5
Attorney General's Office (AGO)	-
MFO Cases in Continuance	4

LFO INDIVIDUAL PERMIT COMPLIANCE REPORT

LFO Individual Permit Compliance: In 2017, a total of 201 inspections/visits were made to LFOs. Of these, 156 inspections were conducted to assess a farm's compliance with their LFO Individual Permit, the LFO Rules, and the RAPs. 45 visits were conducted to offer technical and engineering assistance.

Table 4 – Large Farm Operation Inspections/Visits

Total Number of LFO Inspections/Visits	201
LFO Inspections	156
Complaints from the public	27
▪ <i>Complaints resulting in enforcement</i>	<i>4 issued / 1 pending</i>
Compliance checks ⁴	95 facilities (representing 33 LFOs)
▪ <i>Compliance checks resulting in enforcement</i>	<i>7 issued</i>
LFO Programmatic Follow-up Inspections	27
▪ <i>Programmatic Follow-up Inspections resulting in enforcement</i>	<i>1 issued</i>
LFO Enforcement Action Follow-up Inspections	7
LFO Technical Assistance / Engineering Visits	45

The 33 LFOs assessed for compliance represent a total of 95 individual facilities inspected. One LFO can consist of more than one facility managed as part of the LFO. Each facility is subjected to a comprehensive compliance assessment.

In 2017, 13 LFOs received a total of 15 formal enforcement actions, and one enforcement action is pending. Specifically, 11 LFOs received a total of 12 enforcement actions for violations of the LFO Rule and/or the RAPs that directly relate to

³Under a MOU with ANR, cases involving suspected direct discharges of waste to water are referred to DEC for investigation.

⁴The total number of compliance checks includes 6 visits conducted in cooperation with DEC and/or USEPA to also evaluate a farm operation for compliance with the Federal Concentrated Animal Feeding Operation (CAFO) permit requirements.

water quality, and an additional action is pending for similar violations. An additional two LFOs received a total of three enforcement actions for failing to pay the 2017 LFO Operating Fee. The Agency does not consider these actions to be water quality-related, so they are not represented in Table 3, but they are included in Table 3a below. Two LFOs were referred to DEC for suspected direct discharges of waste to surface water and two LFOs were referred to the Attorney General's Office for further enforcement.

Table 4a – Large Farm Operation Enforcement Actions

Enforcement Actions	Number of Cases
6 V.S.A. Section §4991(7) Letter	3
Corrective Action Letter (CAL)	6
Cease and Desist Order (CDO)	1
Emergency Administrative Order (EAO)	1
Notice of Violation with Administrative Penalty (NOV)	3
▪ Assurance of Discontinuance (AOD)	1
▪ Final Order (FO)	-
Actions Pending	1
LFO In-Field Corrections (verbal warnings)	1
LFO Referrals	-
Department of Environmental Conservation (DEC) ⁵	2
Attorney General's Office (AGO)	2
LFO Cases in Continuance	4

⁵ Under a MOU with ANR, cases involving suspected direct discharges of waste to water are referred to DEC for investigation.

SUMMARY OF ENFORCMENT ACTIONS, INSPECTIONS, AND REFERRALS BY BASIN**Key for Table 5****AOD** = Assurance of Discontinuance**EAO** = Emergency Administrative Order**CAL** = Corrective Action Letter**CDO** = Cease and Desist Order**CON** = Case Continuing**FO** = Final Order**NOV** = Notice of Violation**PA** = Case Permanently Abeyed/Closed**Table 5. Inspections, Enforcement Actions, and Referrals Summarized BY Basin**

Basin	Number of Enforcement Actions	Referrals
Battenkill-Walloomsac-Hoosic	3 (1 pending)	
Southern Lake Champlain	18 (2 pending)	DEC - 4
Otter Creek-Little Otter Creek-Lewis Creek	8	DEC - 1 AGO - 1
Northern Lake Champlain	19 (3 pending)	DEC - 5
Missisquoi	13 (1 pending)	DEC - 4
Lamoille	3	DEC -1
Winooski	3	Conservation District - 1
White	2 (1 pending)	
Otteuquechee-Black-CT Direct		
West-Williams-Saxtons-CT Direct	1 pending	
Deerfield-CT Direct		
Stevens-Wells-Waits-Ompompanoosuc-CT Direct	1	DEC -1
Passumpsic	1	
Upper Connecticut	5	
Lake Memphremagog	14 (2 pending)	DEC -2 AGO - 1

SUMMARY OF ENFORCMENT ACTIONS ISSUED DUE TO RAP VIOLATIONS, MFO GENERAL PERMIT OR LFO INDIVIDUAL PERMIT VIOLATIONS

Key for Table 6

AOD = Assurance of Discontinuance
EAO = Emergency Administrative Order
CAL = Corrective Action Letter

CDO = Cease and Desist Order
CON = Case Continuing
FO = Final Order

NOV = Notice of Violation
PA = Case Permanently Abeyed/Closed

Table 6. Enforcement Actions Issued by General Nature of Violation of RAP Regulations, MFO General Permit, and LFO Individual Permit and Actual Number of Individual Counts. An enforcement action may include more than one count/violation of the RAPs or MFO / LFO permit requirements, so numbers of counts/violations may exceed the total number of enforcement actions issued. The numbers below do not include pending actions.

General Nature of Violation	Actual Number of Individual Counts/Violations	Enforcement Actions Issued
SFO Compliance		
Field Practices	6	CAL (2)
Productions Area	32	CAL (11); CDO (4)
MFO Permit Compliance		
Annual Fee Payment	21	CAL (10); NOV (9); FO (2)
Annual Report Submission	4	CAL (4)
Field Practices	13	CAL (9)
Production Area	54	CAL (17); CDO (4); NOV (1)
Recordkeeping/Reporting	4	CAL (3)
LFO Permit Compliance		
Annual Fee Payment	3	CAL (1); NOV (2)
Field Practices	11	CAL (3); NOV (1); AOD (1); 6 V.S.A. §4991 letter (1)
Permitting	4	CAL (3); 6 V.S.A. §4991 letter (1)
Production Area	11	CAL (2); CDO (1); EAO (1); NOV (1); 6 V.S.A. §4991 letter (1)
Recordkeeping / Reporting	0	N/A
TOTAL	163	95

Questions regarding the Vermont Agricultural Water Quality Enforcement Program or this report in general can be directed to VAAFM Agricultural Resource Management Division:

(802) 828-2431 or agr.waterquality@vermont.gov

Vermont Agency of Agriculture, Food and Markets Agricultural Water Quality Enforcement Program 2017 Annual Report – Appendix

Required Agricultural Practices Regulations Enforcement

Medium Farm Operation General Permit Enforcement

Large Farm Operation Individual Permit Enforcement

Engineering and Technical Assistance

This Appendix is a companion piece to the 2017 Agricultural Water Quality Enforcement Program Report and is intended to provide a graphic representation of the enforcement and compliance assistance efforts undertaken by the Agency during the past year. If you are interested in reviewing the actual data on which these graphics are based, please consult the 2017 Annual Enforcement Report.

You can obtain a copy of the report by contacting the Agency at (802) 828-2431, or by visiting the Agency's website at: <http://agriculture.vermont.gov/water-quality/enforcement-compliance/enforcement-tracking>.

Figure 1. In 2017, the Agency performed a total of 978 inspections/visits to farms to determine compliance with the Required Agricultural Practices (RAPs) Regulations, the Medium Farm Operation (MFO) general permit, and the Large Farm Operation (LFO) Rule and individual permits, and to offer technical and engineering assistance. Overall regulatory compliance rates for water quality-related issues are high for farms of all sizes and **exceed 82%**.

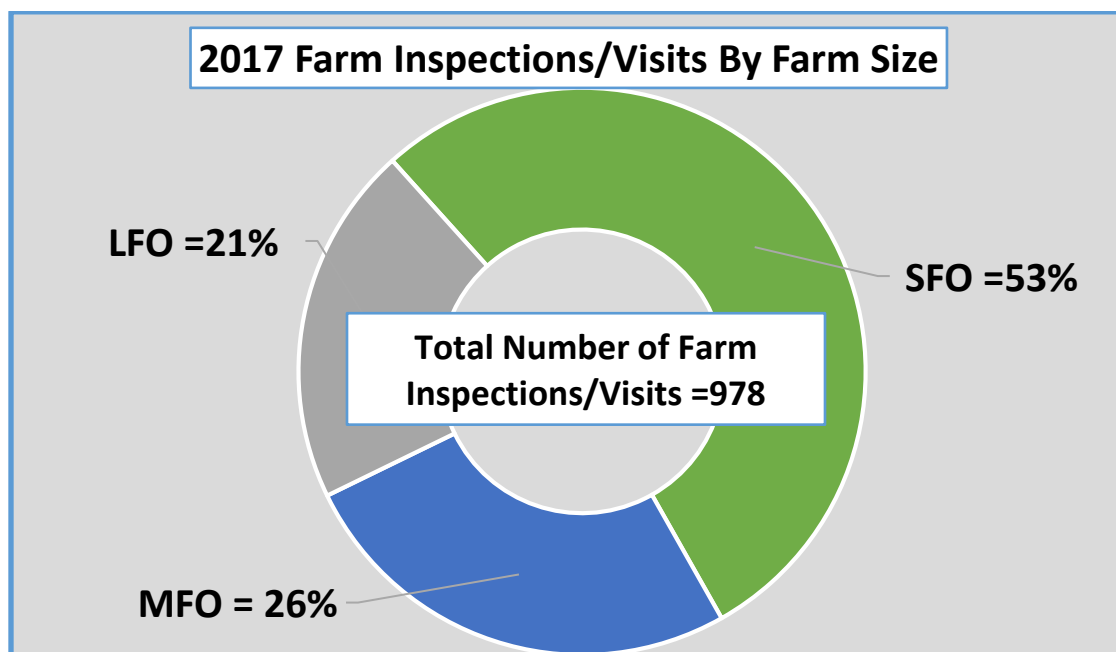


Figure 2. RAP Compliance and Assistance: In 2017, a total of 523 inspections/visits were made to small farms (SFO). Of these, 194 inspections were conducted to determine compliance with the RAPs, and 329 visits were conducted to offer technical and engineering assistance.

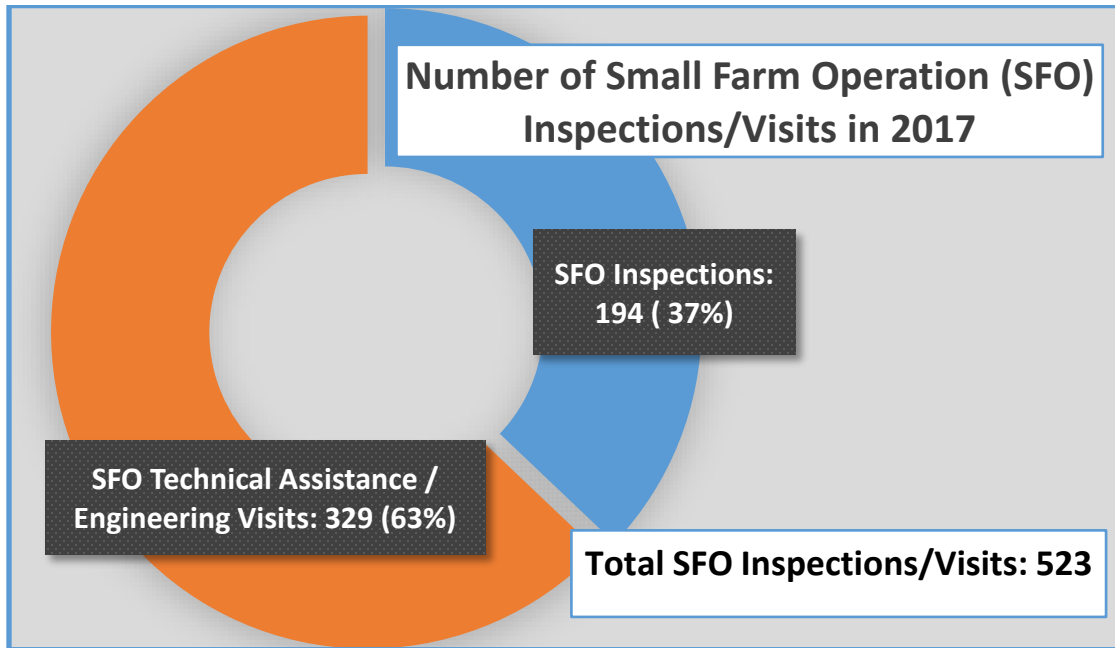


Figure 3. As a result of SFO inspections conducted in 2017, 20 small farms received formal enforcement actions (includes 4 pending actions) resulting in a regulatory compliance rate of 90%.

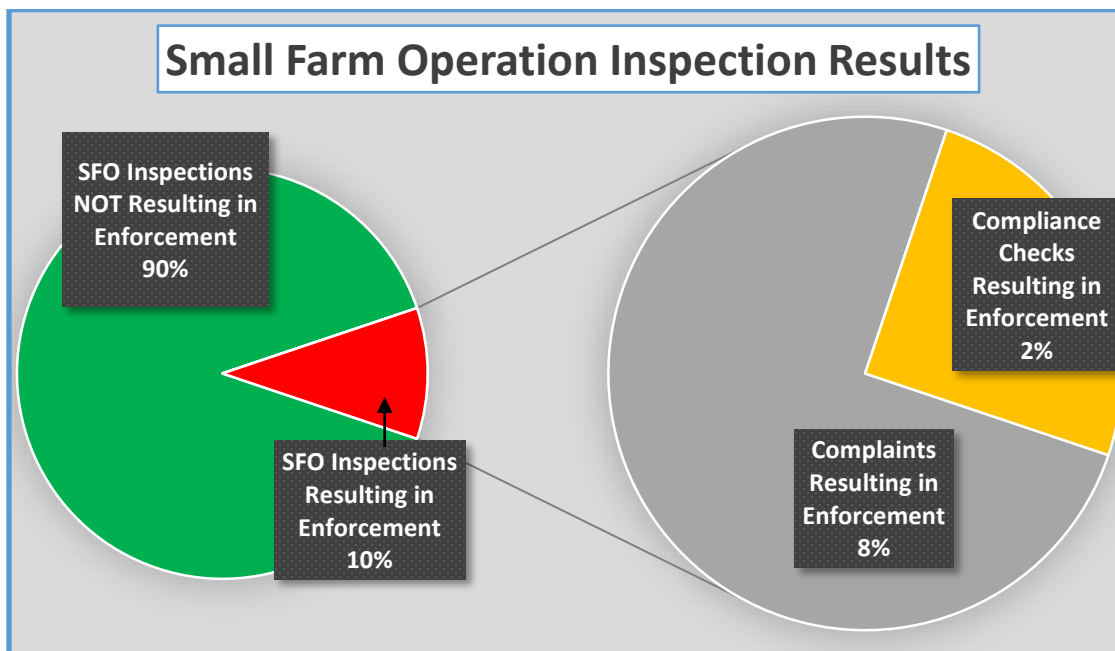


Figure 4. MFO General Permit Compliance: In 2017, a total of 254 inspections/visits were made to Medium Farm Operations. Of these, 155 inspections were conducted on medium farms to evaluate compliance with the State’s MFO general permit conditions.

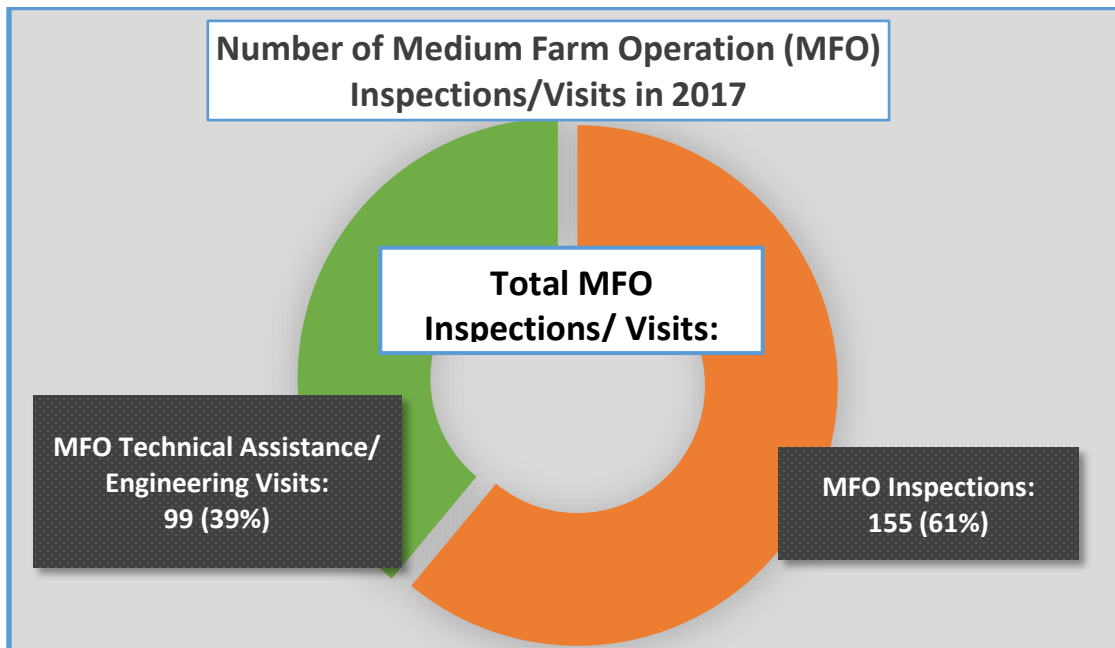


Figure 5. As a result of compliance efforts conducted in 2017, 28 MFOs received enforcement actions for violations of the MFO General Permit and/or the RAPs that directly relate to water quality (includes six pending actions) resulting in a regulatory compliance rate of 82%. An additional 20 farms received enforcement actions for either failing to pay the Annual MFO Operating Fee or failing to submit their Annual MFO Compliance Report. These actions are not reflected in the chart below as they did not result from an inspection to evaluate a farm’s potential impact on water quality.

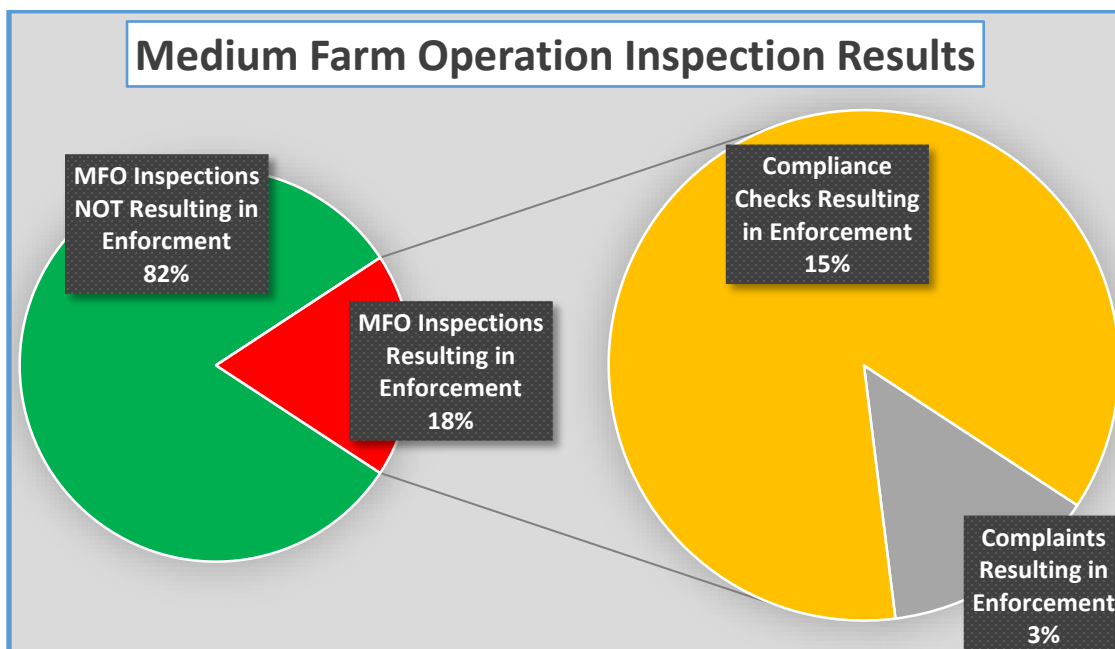


Figure 6. LFO Individual Permit Compliance: In 2017, a total of 201 inspections/visits were made to Large Farm Operations. Of these, 156 inspections were conducted to evaluate a farm’s compliance with the LFO Rules, their individual LFO permit and/or the RAPs.

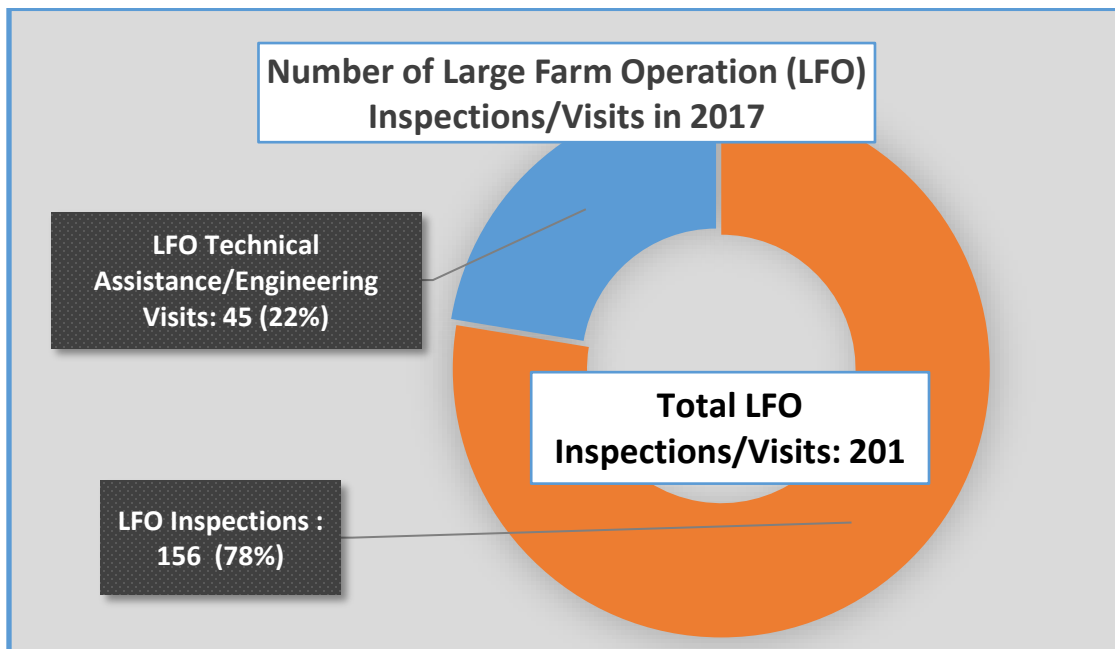


Figure 7. As a result of compliance efforts conducted in 2017, 11 LFOs received a total of 12 enforcement actions for violations of the LFO Rule and/or the RAPs that directly relate to water quality (includes an additional pending action) resulting in a regulatory compliance rate of 93%. An additional two LFOs received a total of three enforcement actions for failing to pay the 2017 LFO Operating Fee. These actions are not reflected in the chart below as they did not result from an inspection to evaluate a farm’s potential impact on water quality.

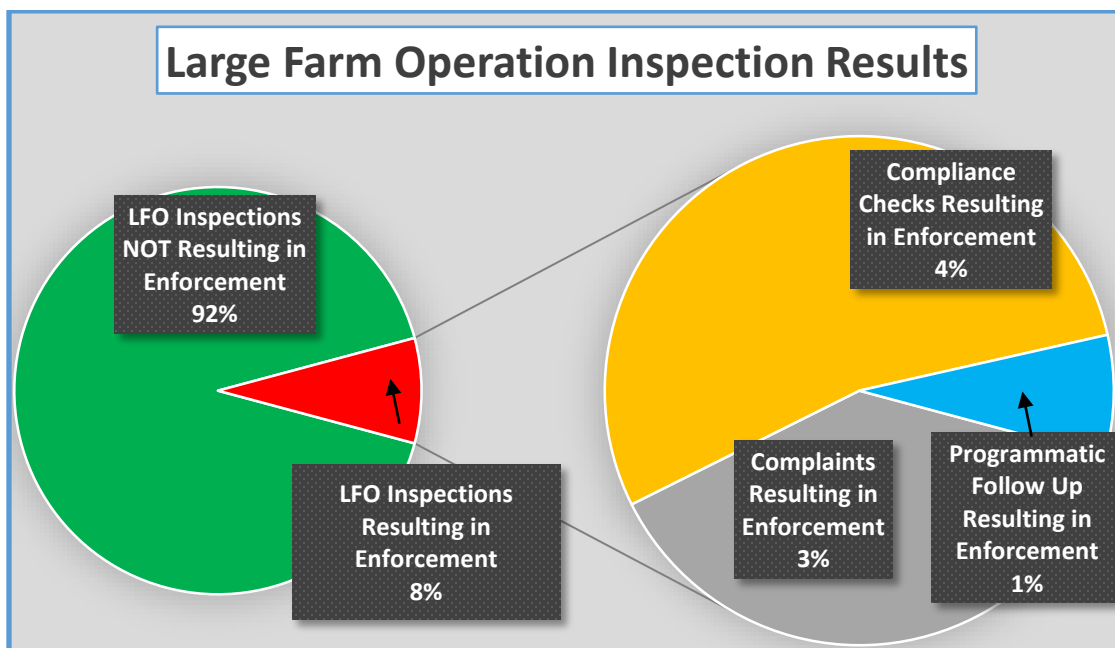


Figure 8. The Agency provides both regulatory services in the form of compliance efforts, and non-regulatory services in the form of technical assistance. Technical assistance is provided by Agency Engineers, a Conservation Reserve Enhancement Program Coordinator, and also by the regulatory field staff. Agency staff will perform multiple technical assistance visits to ensure a farm moves steadily towards achieving compliance. Compliance efforts include formal inspections done on a farm to determine compliance with the RAPs, the MFO General Permit and Rule, the LFO Individual Permits and Rule, “Programmatic Follow-up Inspections” performed to resolve issues identified during inspections that did not go to enforcement, and to discuss regulatory programs and permitting issues with farms, and “Enforcement Action Follow-up Inspections” conducted to specifically evaluate a farm’s progress in correcting issues cited in enforcement actions.

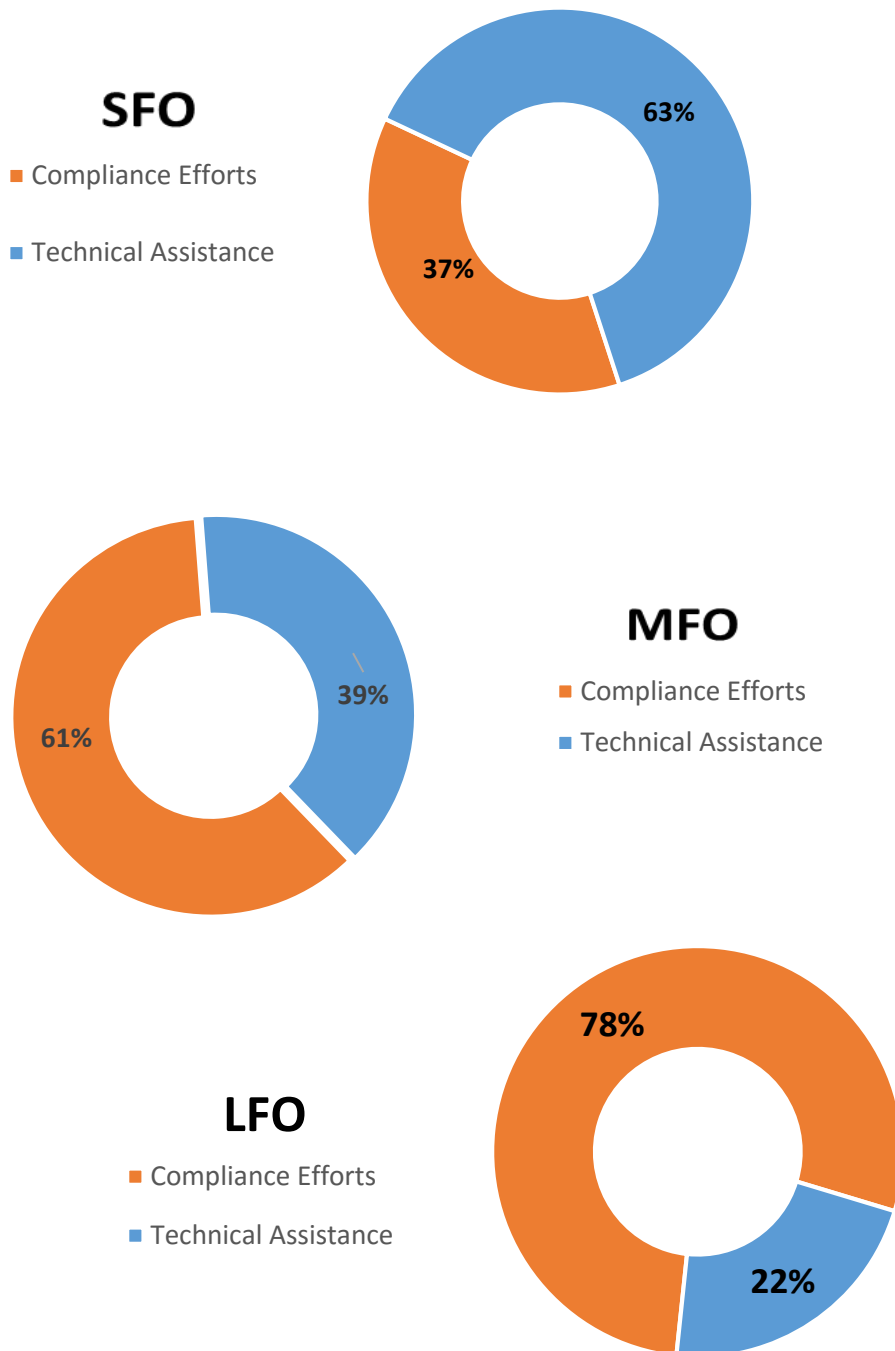
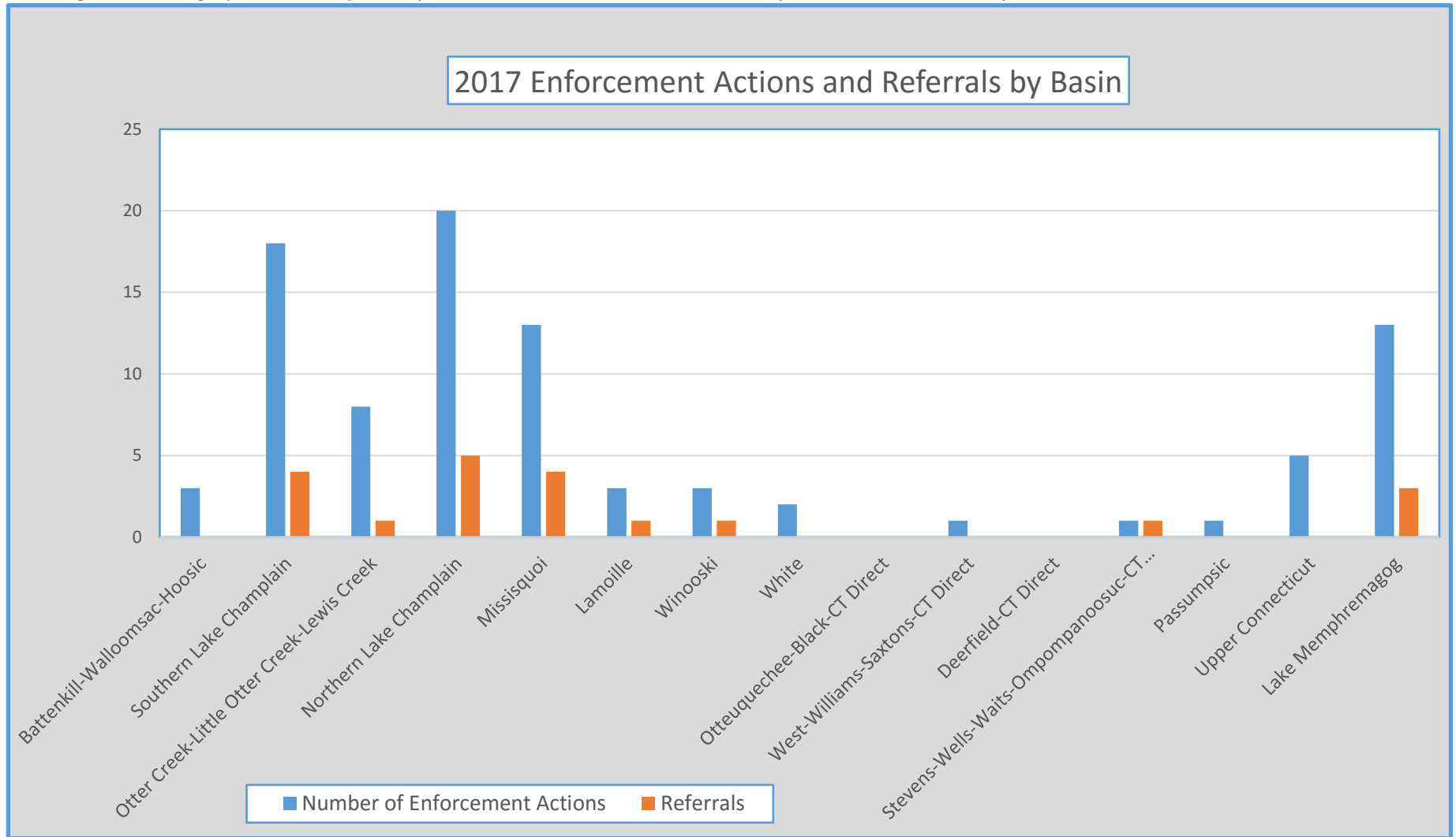


Figure 9. This graphic is a companion piece to Table 4 in the 2017 Annual Report and summarizes, by Basin, all enforcement actions and referrals.



Figures 10a, 10b, and 10c. This graphic is a companion piece to Table 5 in the 2017 Annual Report and summarizes enforcement actions issued by general nature of violation of RAP Regulations, MFO General Permit, and LFO Individual Permit and actual number of individual counts.¹

Figure 10a.

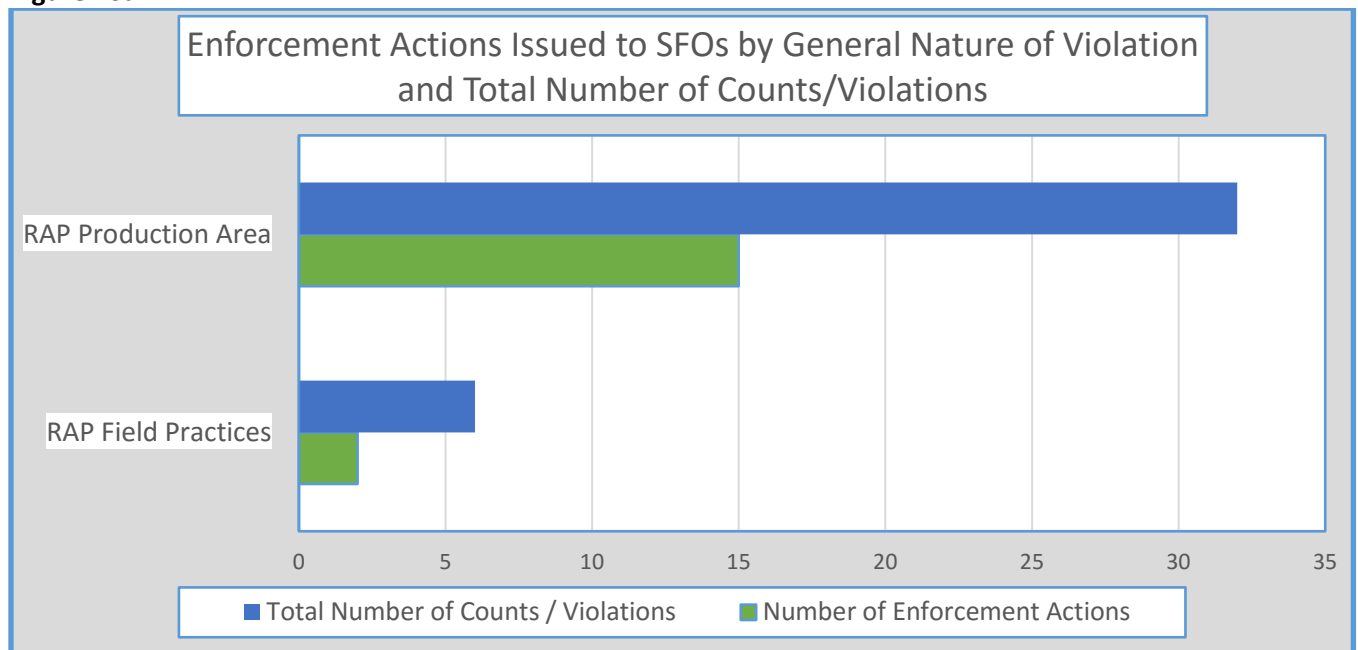
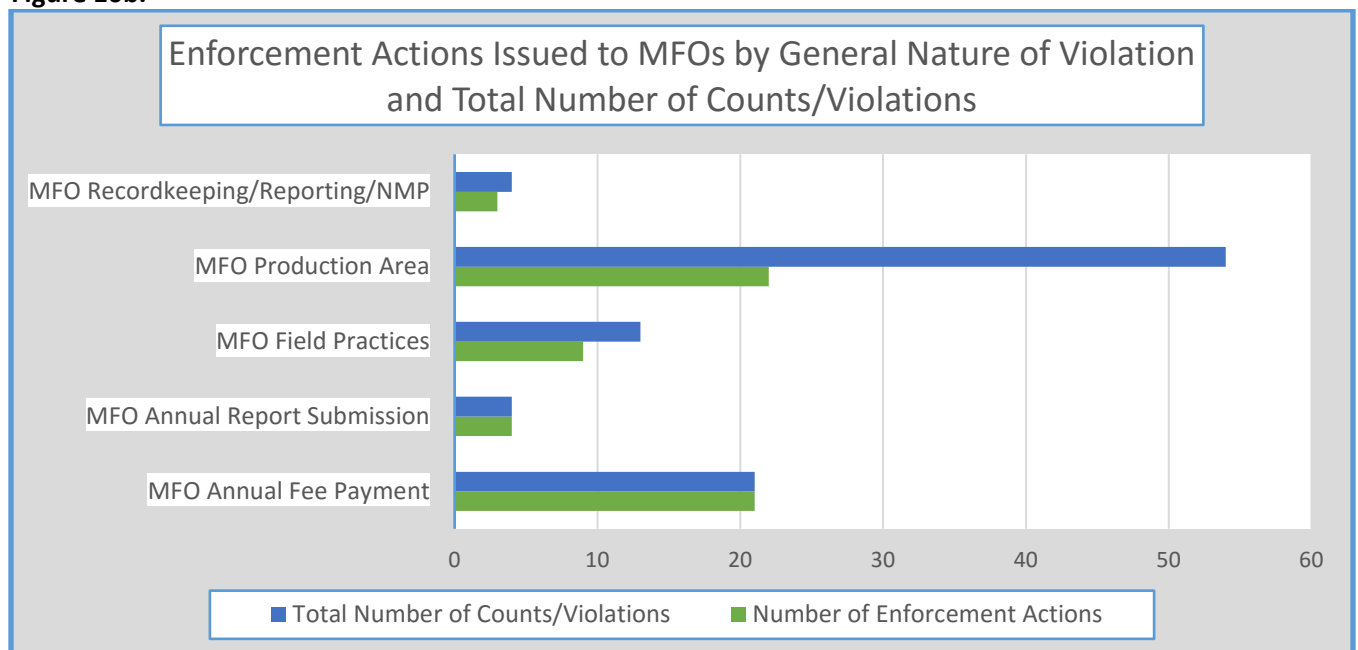


Figure 10b.



¹ Pending actions are not included in these numbers.

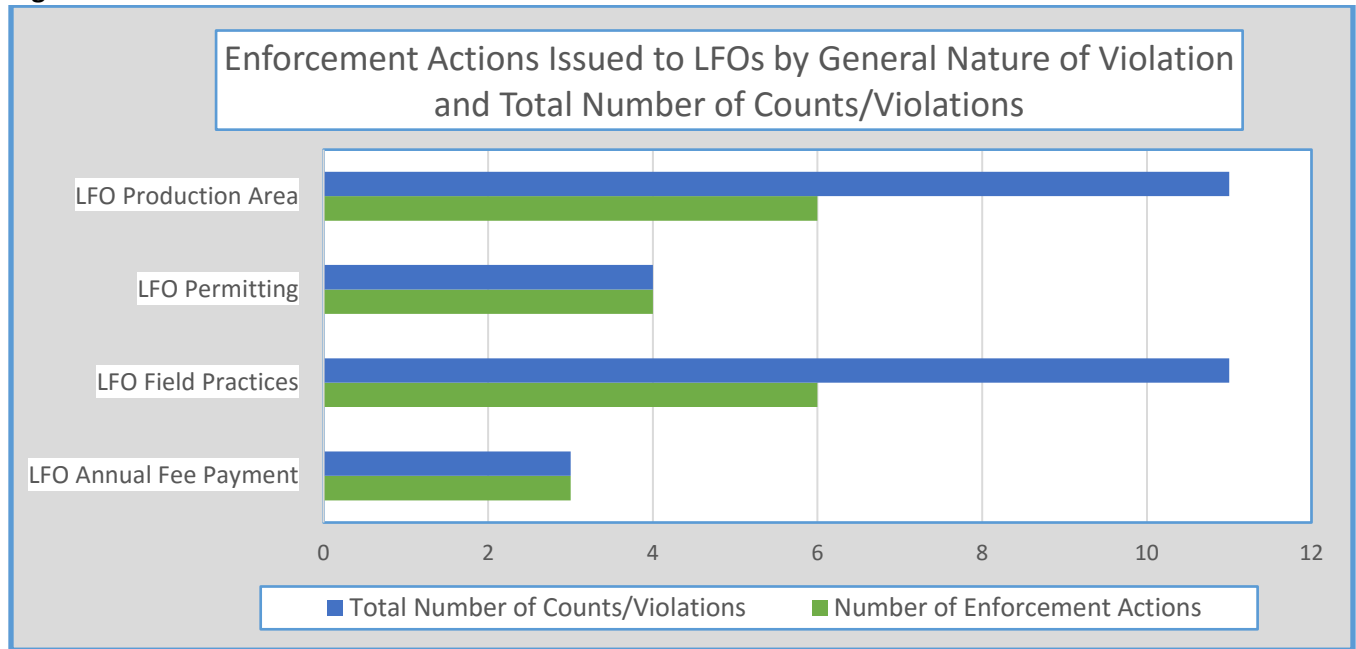
Figure 10c.**Figure 11/Table 1.**

Figure 11 and Table 1 provide a trend analysis of the Agency's Agricultural Water Quality enforcement efforts since 2010. Inspection/investigation numbers have increased steadily starting in 2015 as the Agency has added additional staff to work in the Water Quality Division. Of all complaints received by the Agency in 2017, 20% resulted in the farm operation receiving an enforcement action. Overall, there was a 115% increase from 2016 to 2017 in farms receiving enforcement actions. There was an increase of 48% in 2017 in the number of farm inspections compared to the prior seven-year average and enforcement actions also increased in 2017 compared to the prior seven-year average by 127%. **The overall compliance rate for farm operations in 2017 was 84%.**

- Please note that the number of enforcement actions issued to farms spiked in 2012 and 2013 as a result of the Agency taking enforcement action against MFOs that either failed to submit their Notice of Intent to Comply (NOIC) with the renewed MFO General Permit or failed to send in their MFO Annual Report.
- Please note that the total number of visits to farms each year far exceeds the number of inspections/investigations reported in this graphic. The additional visits not included in this graphic include technical and engineering assistance visits, which are quantified within this report.

Figure 11.

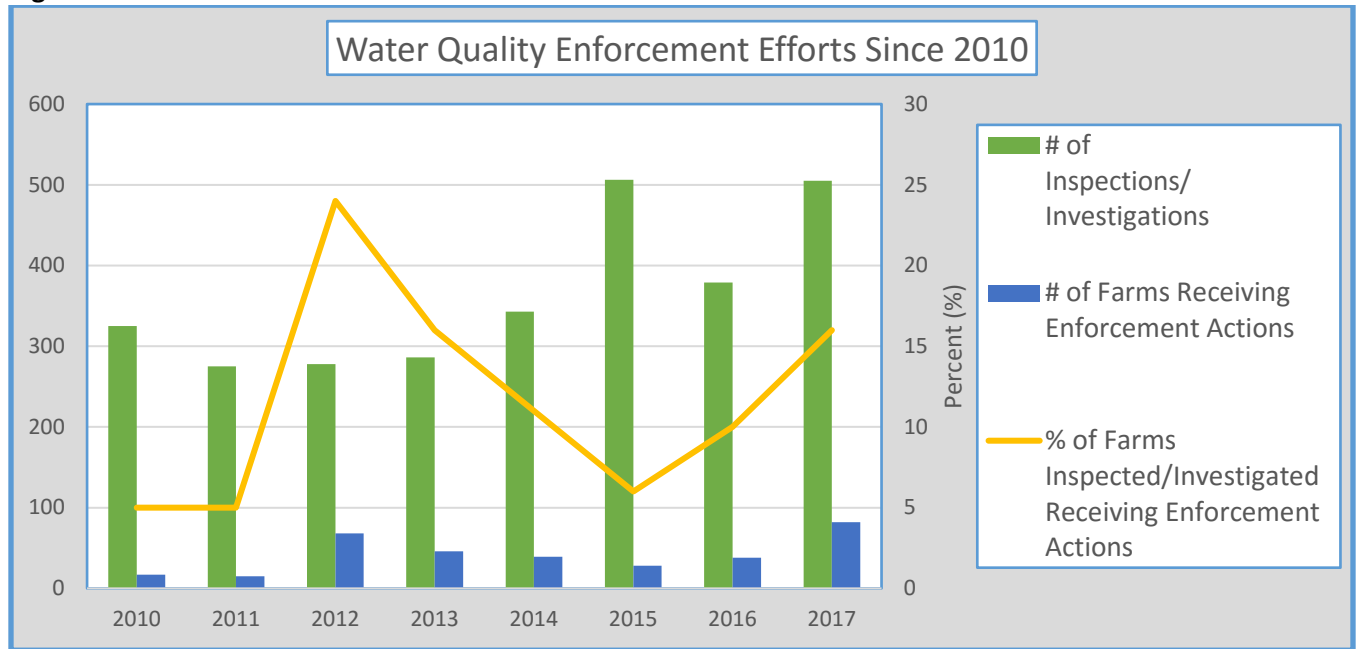


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