Vermont Agency of Agriculture, Food and Markets Agricultural Water Quality Enforcement Program State Fiscal Year 2020 Annual Report

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

February 24, 2021

Dear Reader,

The Water Quality Division of the Vermont Agency of Agriculture, Food and Markets (VAAFM) 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)/Certified Small Farm Operation (CSFO) subject to regulation under the Required Agricultural Practices (RAPs) Rule, to a Medium Farm Operation (MFO) regulated under the State's General Permit for Medium Farm Operations (MFO GP), to a Large Farm Operation (LFO) regulated under an LFO individual permit (LFO IP).

In State Fiscal Year 2020 (FY20), the Water Quality Division continued to utilize staff to focus on:

- evaluating farms of all sizes for compliance with the revised RAPs;
- conducting inspections of CSFOs every seven years;
- conducting inspections of MFOs every three years;
- conducting inspections of LFOs annually;
- enhancing communication efforts to the farming and non-farming community regarding the Agency's agricultural water quality protection regulations;
- conducting ongoing staff training;
- conducting compliance checks to ensure that farmers receiving funds under financial assistance grant programs are complying with the terms of their agreements; and,
- conducting compliance checks on farms as requested by land conservancy and lender groups.

TREND ANALYSIS OF ENFORCEMENT EFFORTS

• Figure 1. Water Quality Enforcement Efforts from 2011 through FY20. Please note that the total number of visits to farms each year far exceeds the number of inspections and investigations reported in this graphic and includes technical and engineering assistance visits quantified within this report.

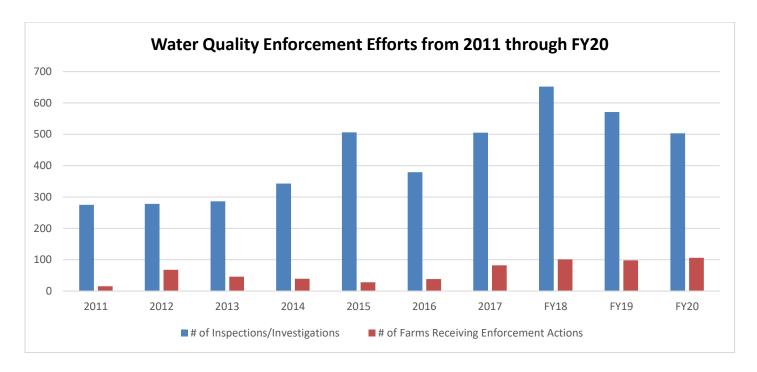


Table 1. Water Quality Enforcement Efforts from 2011 through FY20.

Enforcement Efforts from 2011 through FY20										
Year	2011	2012	2013	2014	2015	2016	2017	FY18	FY19	FY20
# of Inspections/Investigations	275	278	286	343	506	379	505	652	571	503
# of Farms Receiving Enforcement										
Actions	15	68	46	39	28	38	82	101	98	106

Information about the RAPs, the MFO GP program, and the LFO IP program can be found at the following links:

- RAPs https://agriculture.vermont.gov/rap
- MFO Permitting Program https://agriculture.vermont.gov/mfo
- LFO Permitting Program https://agriculture.vermont.gov/lfo

The following report summarizes the Agency's inspection, enforcement, and engineering/technical assistance efforts over the 2020 State Fiscal Year (FY20).

In FY20, the Agency performed a total of 842 inspections/visits to farms to determine compliance with the RAPs, the MFO GP, the Medium and Small Farm Operation Rules for Issuance of General and Individual Permits (MFO Rule), the LFO IP, and the Large Farm Operations Rules (LFO 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, either as a routine compliance check or as a result of a complaint received by the Agency. "Inspections" include "Compliance Check Follow-up Inspections", which are visits conducted in addition to an initial compliance check in order to determine a Farm's compliance with a rule and/or permit, "Programmatic Follow-up Inspections", which are conducted to resolve issues identified during inspections that did not go to enforcement,

"Regulatory Program Assistance", which is conducted to discuss regulatory programs and permitting issues with farms, and does not include a walk-around inspection of the farm, and "Enforcement Action Follow-up Inspections", which are conducted to specifically evaluate a farm's progress in correcting issues cited in enforcement actions. "Visits" are representative of technical and engineering assistance provided on the ground. In addition, the Agency conducted two inspections of Custom Manure Applicators for compliance with the RAPs.

In FY20, 503 inspections of farms were conducted, resulting in 106 farms receiving a total of 124 enforcement actions. Thirty-four farms were referred to the Vermont Agency of Natural Resources, Department of Environmental Conservation (DEC) for suspected direct discharges of wastes to surface water. (The identity of one of these farms was unknown, as was the farm size, so this referral is not reflected in Tables 2a, 3a, 4a, or 5a below, but is reflected in Table

6 below.) Two farms were referred to the Attorney General's Office (AGO) for further enforcement. In addition, one custom applicator of manure was issued two enforcement actions for violations of the RAPs and one custom applicator of manure was referred to DEC for suspected direct discharges of wastes to surface water. These are captured in Tables 6 and 7 below.

Number of Farms, by Farm Size, Receiving Enforcement **Actions** 90 82 80 67 70 60 50 40 30 21 20 20 15 10 **CSFO** MFO I FO # of Farms Receiving Enforcement Actions ■ Total # of Enforcement Actions

Figure 2. Number of Farms, by Farm Size, Receiving Enforcement Actions in FY20.

SFO COMPLIANCE REPORT

Pursuant to the RAPs, a SFO is an operation that has between five and 49 mature dairy cows. SFOs are subject to regulation under the RAPs but are not required to self-certify compliance with the RAPs.

<u>RAP Compliance and Assistance</u>: In FY20, a total of 160 visits were made to SFOs. Of these, 73 inspections were conducted to assess compliance with the RAPs. 87 visits were conducted to offer technical and engineering assistance to farms.

Table 2. SFO Visits

Total Number of SFO Visits	160
SFO Inspections	73
Complaints from the public	27
Complaint-related visits to Farms	52
 Complaints resulting in enforcement 	1
 Complaints resulting in referral to DEC 	5
Compliance checks	7 facilities (representing 7 SFOs)
Compliance check follow-ups	1
 Compliance checks/follow-ups resulting in 	0
enforcement	
SFO Programmatic Follow-up Inspections	2
SFO Enforcement Action Follow-up Inspections	8
SFO Regulatory Program Assistance	3
SFO Technical Assistance / Engineering Visits	87

In FY20, five SFOs received a total of six enforcement actions. Specifically, as a result of compliance efforts conducted in FY20 and reported in Table 2 above, one SFO received one enforcement action for violations of the RAPs. An additional four SFOs received a total of five enforcement actions in FY20 based on inspections conducted during FY19. These are reported in Table 2a below. Five SFOs were referred to DEC for suspected point source discharges of waste to surface water.

Table 2a - SFO Enforcement Actions

Enforcement Actions	Number of FY2020 Cases	Number of FY2019 Cases
§ 4991(7) Letter	0	0
Corrective Action Letter (CAL)	1	3
Cease and Desist Order (CDO)	0	0
Mandatory Corrective Action Order (MCAO)	0	0
Notice of Violation with Administrative Penalty (NOV)	0	1
 Assurance of Discontinuance (AOD) 	0	0
Final Order	0	1
SFO Referrals		
Department of Environmental Conservation (DEC) ¹	5	0
Attorney General's Office (AGO)	0	0

CSFO COMPLIANCE REPORT

Pursuant to the RAPs, a CSFO is an operation that has between 50 and 199 mature dairy cows. CSFOs are required to self-certify compliance with the RAPs annually and must be inspected by the Agency at least once every seven years for compliance with the RAPs.

¹ Under a Memorandum of Understanding (MOU) with ANR, cases involving suspected point source discharges of waste to water are referred to DEC for investigation.

<u>RAP Compliance and Assistance</u>: In FY20, a total of 350 visits were made to CSFOs. Of these, 198 inspections were conducted to assess compliance with the RAPs. 152 visits were conducted to offer technical and engineering assistance to farms.

Table 3. CSFO Visits

Total Number of CSFO Visits	350
CSFO Inspections	198
Complaints from the public	40
Complaint-related visits to Farms	46
 Complaints resulting in enforcement 	2
 Complaints resulting in referral to DEC 	2
Compliance checks	76 facilities (representing 76 CSFOs)
Compliance check follow-ups	15
 Compliance checks/follow-ups resulting in 	9
enforcement	
 Compliance checks/follow-ups resulting in referrals 	5
to DEC	
CSFO Programmatic Follow-up Inspections	10
CSFO Enforcement Action Follow-up Inspections	6
CSFO Regulatory Program Assistance	45
CSFO Technical Assistance / Engineering Visits	152

In FY20, 20 CSFOs received a total of 21 enforcement actions. Specifically, as a result of compliance efforts conducted in FY20 and reported in Table 3 above, 11 CSFOs received a total of 12 enforcement actions for violations of the RAPs. An additional eight farms received a total of eight enforcement actions in FY20 based on inspections conducted during FY19. One farm received a enforcement action for an ongoing case that originated in calendar year 2015. These are reported in Table 3a below. Ten CSFOs were referred to DEC for suspected point source discharges of waste to surface water.

Table 3a - CSFO Enforcement Actions

Enforcement Actions	Number of FY2020 Cases	Number of FY2019 Cases	Number of 2015 Cases
§ 4991(7) Letter	1	0	1
Corrective Action Letter (CAL)	9	6	0
Cease and Desist Order (CDO)	0	0	0
Mandatory Corrective Action Order (MCAO)	0	0	0
Notice of Violation with Administrative Penalty (NOV)	1	0	0
 Assurance of Discontinuance (AOD) 	1	1	0
Final Order	0	1	0
SFO Referrals			
Department of Environmental Conservation (DEC) ²	7	3	0
Attorney General's Office (AGO)	0	0	0

² Under a MOU with ANR, cases involving suspected point source discharges of waste to water are referred to DEC for investigation.

MFO GENERAL PERMIT COMPLIANCE REPORT

Pursuant to the RAPs, a MFO is an operation that has between 200 and 699 mature dairy cows. MFOs are subject to regulation under the RAPs, the MFO Rule, and a MFO GP, and must be inspected by the Agency at least once every three years for compliance with the Rule and Permit.

<u>MFO GP Compliance</u>: In FY20, a total of 179 visits were made to MFOs. Of these, 114 inspections were conducted to assess compliance with the State's MFO GP, the MFO Rules, and the RAPs. 65 visits were conducted to offer technical and engineering assistance.

Table 4 - MFO Visits

Total Number of MFO Visits	179
MFO Inspections	114
Complaints from the public	36
Complaint-related visits to Farms	33
Complaints resulting in enforcement	9
■ Complaints resulting in referral to DEC	0
Compliance checks	56 facilities (representing 29 MFOs)
Compliance check follow-ups	2
 Compliance checks/follow-ups resulting in 	11
enforcement	
 Compliance check/follow-ups resulting in referrals 	7
to DEC	
MFO Programmatic Follow-up Inspections	8
MFO Enforcement Action Follow-up Inspections	13
MFO Regulatory Program Assistance	2
MFO Technical Assistance / Engineering Visits	65

The 29 MFOs assessed for compliance represent a total of 56 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.

In FY20, 67 MFOs received a total of 82 enforcement actions. Specifically, as a result of compliance efforts conducted in FY20 and reported in Table 4 above, 19 MFOs received a total of 22 enforcement actions for violations of the MFO GP and/or the RAPs. An additional eight farms received a total of eight enforcement actions in FY20 based on inspections conducted during FY19, and one farm received one enforcement action in FY20 based on an inspection conducted in calendar year 2017. These are reported in Table 4a below. A total of eight MFOs were referred to DEC for suspected point source discharges of waste to surface water. An additional 39 farms received a total of 51 enforcement actions for either failing to pay the 2019 Annual MFO Operating Fee or failing to submit their 2019 Annual MFO Compliance Report, P-index, and/or GIS shape files. These actions are included in Table 4a below in the "Number of FY2019 Cases" column.

Table 4a - MFO Enforcement Actions

Enforcement Actions	Number of FY2020 Cases	Number of FY2019 Cases	Number of 2017 Cases
6 V.S.A. Section §4991(7) Letter	1	1	0
Corrective Action Letter (CAL)	15	35	0
Cease and Desist Order (CDO)	0	0	0
Notice of Violation with Administrative Penalty (NOV)	3	17	1

 Assurance of Discontinuance (AOD) 	3	0	0
• Final Order (FO)	0	6	0
MFO Referrals			
Department of Environmental Conservation (DEC) ³	7	1	0
Attorney General's Office (AGO)	0	0	0

LFO IP COMPLIANCE REPORT

Pursuant to the RAPs, a LFO is an operation that has at least 700 mature dairy cows. LFOs are subject to regulation under the RAPs, the LFO Rule, and a LFO IP, and must be inspected by the Agency at least once every year for compliance with the Rule and the Farm's LFO Permit.

<u>LFO IP Compliance</u>: In FY20, a total of 153 visits were made to LFOs. Of these, 118 inspections were conducted to assess a farm's compliance with their LFO IP, the LFO Rule, and the RAPs. 35 visits were conducted to offer technical and engineering assistance.

Table 5 - LFO Visits

Total Number of LFO Visits	153
LFO Inspections	118
Complaints from the public	29
Complaint-related visits to Farms	25
 Complaints resulting in enforcement 	3
 Complaints resulting in referral to DEC 	3
 Complaints resulting in referral to AGO 	1
Compliance checks	87 facilities (representing 24 LFOs)
Compliance check follow-ups	1
 Compliance checks resulting in enforcement 	8
 Complaints resulting in referral to DEC 	7
LFO Programmatic Follow-up Inspections	4
LFO Enforcement Action Follow-up Inspections	1
LFO Regulatory Program Assistance	0
LFO Technical Assistance / Engineering Visits	35

The 24 LFOs assessed for compliance represent a total of 87 individual facilities inspected. One LFO can consist of more than one facility managed as part of the LFO. In past years, each facility has been subjected to a comprehensive compliance assessment and this remained the case for LFO inspections conducted from July 2019 through mid-March 2020. However, for inspections conducted during the State of Emergency declared by Governor Phil Scott due to the COVID-19 pandemic, the inspection process was abbreviated to include a full inspection of the primary facility for the operation and any other facilities and remote structures were evaluated only if a follow-up from a previous inspection, investigation or enforcement action was necessary. There are 36 permitted LFOs in the State and each gets inspected on a calendar year basis. Because this report now summarizes inspection efforts on a fiscal year basis, a single LFO may have been inspected twice within the reporting time frame. Conversely, a LFO may have been inspected prior to July 1, 2019 and again after July 1, 2020, and therefore may not be counted here.

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

In FY20, 14 LFOs received a total of 15 enforcement actions. Specifically, as a result of compliance efforts conducted in FY20 and reported in Table 5 above, 11 LFOs received a total of 12 enforcement actions for violations of the LFO Rule and/or the RAPs. An additional three LFOs received a total of three enforcement actions in 2020 based on inspections conducted during FY 2019. These are also reported in Table 5a below. Ten LFOs were referred to DEC for suspected direct discharges of waste to surface water and two LFOs were referred to the AGO for further enforcement.

Table 5a - LFO Enforcement Actions

Enforcement Actions	Number of FY2020	Number of FY2019
	Cases	Cases
6 V.S.A. Section §4991(7) Letter	0	0
Corrective Action Letter (CAL)	10	3
Cease and Desist Order (CDO)	0	0
Emergency Administrative Order (EAO)	0	0
Notice of Violation with Administrative Penalty (NOV)	1	0
 Assurance of Discontinuance (AOD) 	1	0
• Final Order (FO)	0	0
LFO Referrals		
Department of Environmental Conservation (DEC) ⁴	10	0
Attorney General's Office (AGO)	1	1

Table 6. Number of FY20 Enforcement Actions and Referrals Summarized by Basin

Basin	Number of Enforcement Actions ⁵	Referrals ⁶
Battenkill-Walloomsac-Hoosic	1	0
Southern Lake Champlain	19	DEC - 2
Otter Creek-Little Otter Creek-Lewis Creek	18	DEC – 4
Northern Lake Champlain	19	DEC - 4
Missisquoi	18	DEC – 8; AGO-1
Lamoille	3	DEC - 3
Winooski	11	DEC - 2
White	12	DEC - 2
Ottauquechee-Black-CT Direct	1	0
West-Williams-Saxtons-CT Direct	2	DEC -1
Deerfield-CT Direct	1	0
Stevens-Wells-Waits-Ompompanoosuc-CT Direct	6	DEC - 3
Passumpsic	2	DEC - 3
Upper Connecticut	3	0
Lake Memphremagog	10	DEC-3 AGO-1

⁴ Under a MOU with ANR, cases involving suspected direct discharges of waste to water are referred to DEC for investigation.

⁵ Includes the two enforcement actions issued to Custom Manure Applicators.

⁶ Include one Custom Manure Applicator referral to DEC.

Table 7. Enforcement Actions Issued in FY20 by General Nature of Violation of RAP Regulations, MFO General Permit, and LFO Individual Permit.⁷

General Nature of Violation	Actual Number of Individual Counts/Violations ⁸	Enforcement Actions Issued
SFO Compliance		
Field Practices	0	0
Productions Area	9	CAL – 4; NOV – 1; FO – 1
Recordkeeping / NMP	0	0
Permitting	0	0
CSFO Compliance		
Field Practices	4	CAL – 2; NOV -1
Production Area	41	CAL – 14; FO -1
Recordkeeping / NMP	3	CAL -1; FO -1
Permitting	0	0
MFO Permit Compliance		
Annual Fee Payment / Reporting	52	CAL – 29; NOV – 16; FO - 6
Field Practices	18	CAL -7; NOV - 4
Production Area	46	CAL – 15; NOV -1
Recordkeeping/NMP	14	CAL – 11; NOV - 1
Permitting	3	CAL - 3
LFO Permit Compliance		
Annual Fee Payment / Reporting		0
Field Practices	13	CAL – 6; NOV – 1
Production Area	23	CAL - 9
Recordkeeping / NMP		0
Permitting		0
Custom Manure Applicator		
Field Practices	1	CAL - 1
Recordkeeping	0	0

Key for Table 7

CAL = Corrective Action Letter

FO = Final Order

NOV = Notice of Violation

Questions regarding the Vermont Agricultural Water Quality Enforcement Program or this report in general can be directed to VAAFM Enforcement Section: (802) 461-7160 or David.Huber@vermont.gov

⁷ Assurances of Discontinuance (AODs) and § 4991(7) letters are not included in this table. While they are enforcement actions, they are not charging documents with specific counts.

⁸ 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. In addition, the total number of enforcement actions listed in Table 7 exceeds the 124 enforcement actions issued to farms in FY20. If an enforcement action contains counts for more than one "General Nature of Violation", that action is listed multiple times for each different violation contained in the action.

Vermont Agency of Agriculture, Food and Markets Agricultural Water Quality Enforcement Program FY20 Report – Appendix

Required Agricultural Practices Rule 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 FY20 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 of Agriculture, Food and Markets (the Agency) during FY20. Please consult the FY20 Report if you are interested in reviewing the actual data on which these graphics are based. You can obtain a copy of the report by contacting the Agency at (802) 461-7160, or by visiting the Agency's website at: https://agriculture.vermont.gov/water-quality/enforcement-compliance

Figure 1. FY20 Inspections/Visits by Farm Size: In FY20, the Agency performed a total of 842 inspections/visits of farms to determine compliance with the Required Agricultural Practices (RAPs) Rule, the Medium and Small Farm Operation Rules for Issuance of General and Individual Permits (MFO Rule), the Medium Farm Operation General Permit (MFO GP), the Large Farm Operation Rule (LFO Rule), and the Large Farm Operation individual permits (LFO IP), and to offer technical and engineering assistance.

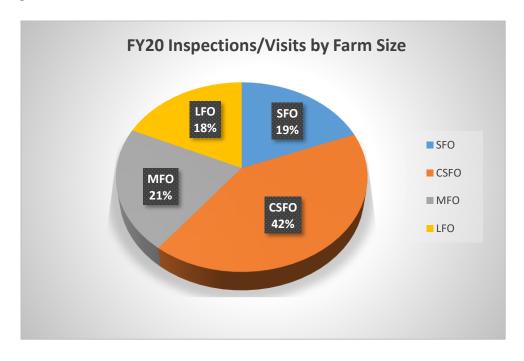


Figure 2. RAP Compliance and Assistance – Small Farm Operations (SFOs): Pursuant to the RAPs, a SFO is an operation that has between five and 49 mature dairy cows. SFOs are subject to regulation under the RAPs but are not required to self-certify compliance with the RAPs.

In FY20, a total of 160 visits were made to SFOs. Of these, 73 inspections were conducted to assess compliance with the RAPs. 87 visits were conducted to offer technical and engineering assistance to farms.

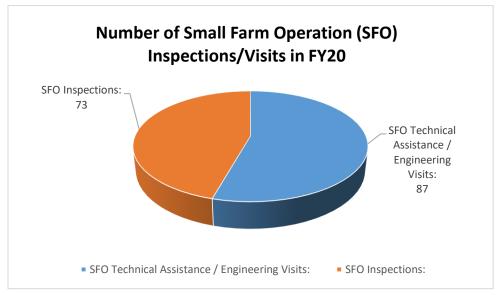


Figure 3. RAP Compliance and Assistance – Certified Small Farm Operations (CSFOs): Pursuant to the RAPs, a CSFO is an operation that has between 50 and 199 mature dairy cows. CSFOs are required to self-certify compliance with the RAPs annually and must be inspected by the Agency at least once every seven years for compliance with the RAPs.

In FY20, a total of 350 visits were made to CFOs. Of these, 198 inspections were conducted to assess compliance with the RAPs. 152 visits were conducted to offer technical and engineering assistance to farms.

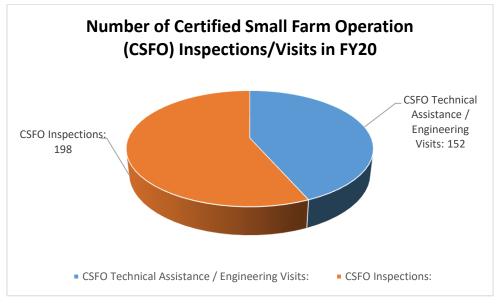


Figure 4. MFO GP Compliance and Assistance: Pursuant to the RAPs, a MFO is an operation that has between 200 and 699 mature dairy cows. MFOs are subject to regulation under the RAPs and Vermont's MFO GP and must be inspected by the Agency at least once every three years for compliance with the Rule and Permit.

In FY20, a total of 179 visits were made to MFOs. Of these, 114 inspections were conducted to assess compliance with the State's MFO GP, MFO Rule, and the RAPs. 65 visits were conducted to offer technical and engineering assistance.

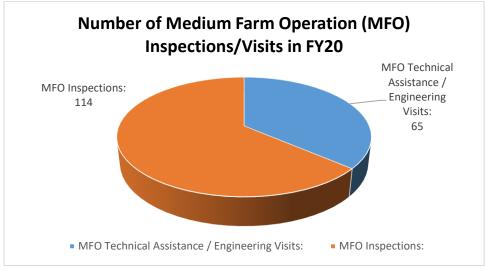


Figure 5. LFO IP Compliance and Assistance: Pursuant to the RAPs, a LFO is an operation that has at least 700 mature dairy cows. LFOs are subject to regulation under the RAPs, the LFO Rule, and an LFO IP, and must be inspected by the Agency at least once every year for compliance with the Rules and the Farm's LFO IP.

In FY20, a total of 153 visits were made to LFOs. Of these, 118 inspections were conducted to assess a farm's compliance with their LFO IP, the LFO Rule, and the RAPs. 35 visits were conducted to offer technical and engineering assistance.

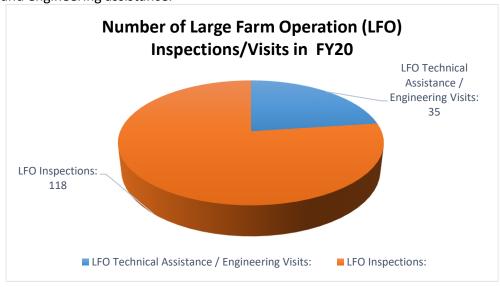


Figure 6. FY20 Inspections and Technical/Engineering Assistance by Farm Size: The Agency provides both regulatory services in the form of inspections and non-regulatory services in the form of technical assistance. Technical assistance is provided by Agency engineers, two Conservation Reserve Enhancement Program (CREP) Coordinators, and Agency regulatory field staff. Agency staff will perform multiple technical assistance visits to ensure that a farm moves steadily towards achieving compliance.

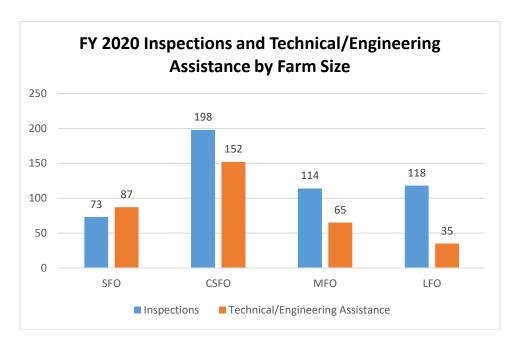


Figure 7. Number of Farms, by Farm Size, Receiving Enforcement Actions: In FY20, 106 farms received a total of 124 enforcement actions. This graphic illustrates the distribution of enforcement actions by farm size.

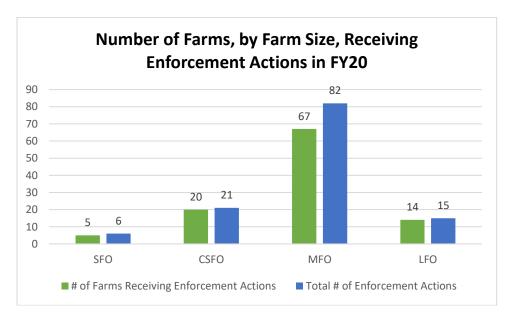
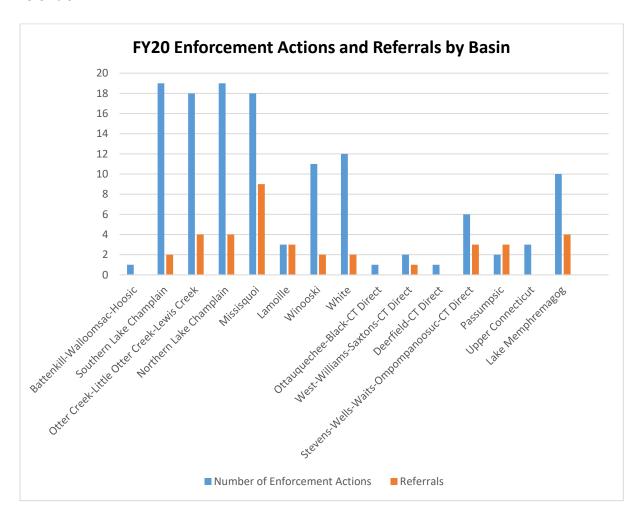


Figure 8. FY20 Enforcement Actions and Referrals by Basin: This graphic is a companion piece to Table 6 in the FY20 Annual Report and summarizes, by Basin, the number of enforcement actions and referrals.



by General Nature of Violation and Total Number of Counts/Violations: These graphics comprise a companion piece to Table 7 in the FY20 Report and summarize enforcement actions issued to farm operations by general nature of violation of the RAPs, MFO GP, and LFO IP, 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 the number of counts/violations may exceed the total number of enforcement actions issued. In addition, the total number of enforcement actions listed in Table 7 exceeds the 124 enforcement actions issued to Farms in FY20. If an enforcement action contains counts for more than one "General Nature of Violation", then that action is listed multiple times for each different violation contained in the action.

Figure 9a.

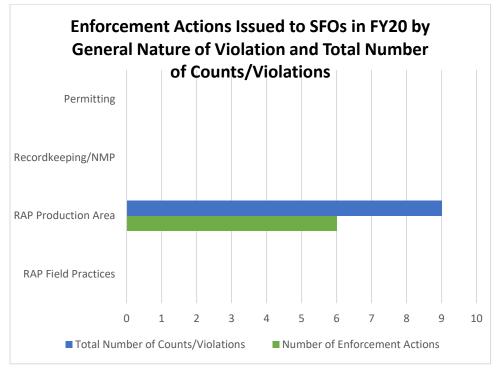


Figure 9b.

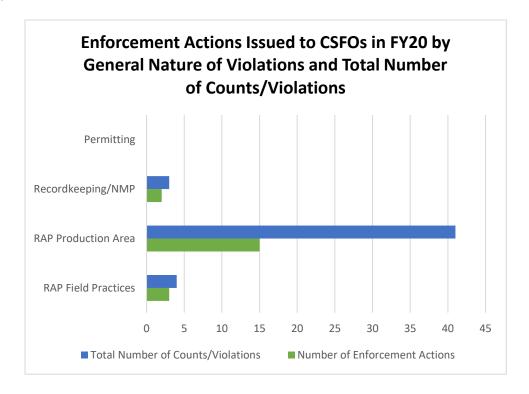


Figure 9c.



Figure 9d.

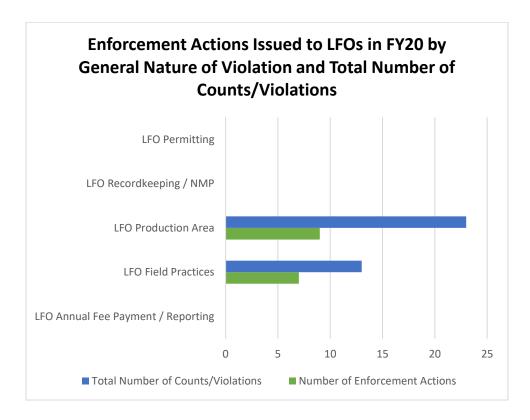
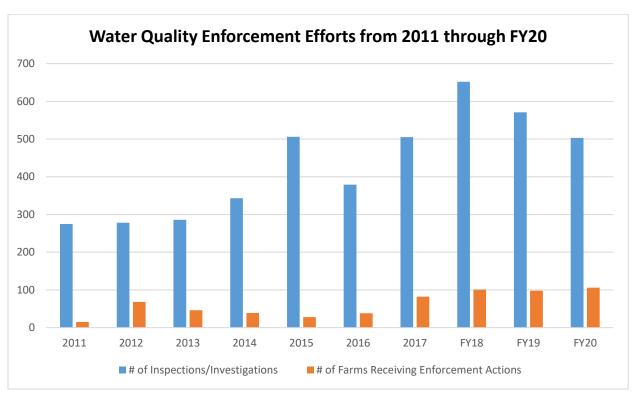


Figure 10. Trend analysis of the Agency's agricultural water quality enforcement efforts over a ten-year period, or since 2011. Please note that the total number of visits to farms each year far exceeds the number of inspections/investigations reported in this graphic and includes technical and engineering assistance visits quantified within this report.



Enforcement Efforts from 2011 through FY20										
Year	2011	2012	2013	2014	2015	2016	2017	FY18	FY19	FY20
# of Inspections/										
Investigations	275	278	286	343	506	379	505	652	571	503
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