

CONSERVATION RESERVE PROGRAM WATER QUALITY PRACTICES ANNUAL REPORT FISCAL YEAR 2021

FPAC BUSINESS CENTER/ECONOMIC AND POLICY ANALYSIS DIVISION IN COLLABORATION WITH THE FARM SERVICE AGENCY

Background

Section 2201 of the Agriculture Improvement Act of 2018 (the 2018 Farm Bill) requires that the Farm Service Agency publish an annual report of Conservation Reserve Program (CRP) summary statistics regarding conservation practices that have a positive impact on water quality to foster clean lakes, estuaries, and rivers (the CLEAR Initiative), including data on:

- New enrollments;
- Expirations;
- The geographic distribution of enrollment; and
- Estimated water quality benefits.

This report provides data on water quality practices and their impacts for fiscal year (FY) 2021. CRP conservation practices that have a positive impact on water quality include grass waterways, contour grass sod strips, filter strips, riparian buffers, wetlands or wetland buffers, saturated buffers, bioreactors, prairie strips, and other similar water quality practices.

New Enrollments

A total of 98,185 acres were newly enrolled across all CRP water quality practices in FY 2021 (Table 1). These new enrollments account for 12 percent of all new CRP enrollments in FY 2021. Wetland restorations (CP23 and CP23A) accounted for 60 percent of water quality enrollments (Table 1).

Table 1. New Enrollments FY 2021 (Acres) - Water Quality Practices

Practice Number	Practice Name	Acres ¹
CP8A	Grass Waterways, Non-easement	1,456
CP9	Shallow Water Areas for Wildlife	217
CP15A&B	Contour Grass Sod Strip	83
CP21	Filter Strips	5,600
CP21B	Denitrifying Bioreactor on Filter Strips	25
CP21S	Saturated Buffer Filter Strips	20
CP22	Riparian Buffers	3,019

CP22B	Denitrifying Bioreactor on Riparian Buffers	12
CP22S	Saturated Buffer Riparian Buffers	6
CP23	Wetland Restoration	14,424
CP23A	Wetland Restoration, Non-floodplain	44,519
CP29	Marginal Pastureland Wildlife Habitat Buffer	1,267
CP30	Marginal Pastureland Wetland Buffer	255
CP31	Bottomland Timber Establishment on Wetlands	5,433
CP37	Duck Nesting Habitat	15,185
CP38BUF	SAFE Buffers	15
CP38WET	SAFE Wetlands	1,529
CP43	Prairie Strips	5,119
TOTAL WATER QUALITY PRACTICES²		98,185

¹ New enrollments in Signups 55, 56, and 401 as of October 31, 2021.

² Acres may not sum to total due to rounding.

Net Expirations

A total of 234,103 acres expired and 142,065 acres were reenrolled across all water quality practices, for a net expiration of 92,037 acres. Table 2 shows the number of CRP water quality acres that were scheduled to expire in FY 2021, the expiring acres that reenrolled, and net expirations across all water quality practices. Non-floodplain wetland restoration (CP23A) and bottomland timber establishment on wetlands (CP31) had the highest reenrollment rates (at 74 percent and 73 percent, respectively), followed by grass waterways, non-easement (CP8A) and duck nesting habitat (CP37) (at 68 percent and 67 percent, respectively).

Table 2. Net Expirations FY 2021 (Acres) - Water Quality Practices

Practice Number	Practice Name	Expiring Acres ¹	Reenrolled Acres ²	Net Expirations
CP8A	Grass Waterways, Non-easement	18,145	12,330	5,815
CP9	Shallow Water Areas for Wildlife	4,442	2,933	1,509
CP15A	Contour Grass Strip	8,078	943	7,135
CP15B	Contour Grass Strips on Terraces	241	114	127
CP21	Filter Strips	55,933	34,823	21,110
CP21B	Denitrifying Bioreactor on Filter Strips	0	0	0
CP21S	Saturated Buffer Filter Strips	0	0	0
CP22	Riparian Buffers	42,629	22,939	19,690
CP22B	Denitrifying Bioreactor on Riparian Buffers	0	0	0
CP22S	Saturated Buffer Riparian Buffers	0	0	0
CP23	Wetland Restoration	28,927	18,121	10,806
CP23A	Wetland Restoration, Non-floodplain	24,531	18,203	6,328
CP29	Marginal Pastureland Wildlife Habitat Buffer	5,883	2,255	3,628
CP30	Marginal Pastureland Wetland Buffer	4,534	1,615	2,919
CP31	Bottomland Timber Establishment on Wetlands	10,390	7,534	2,856
CP37	Duck Nesting Habitat	30,321	20,257	10,064
CP38BUF	SAFE Buffers	0	0	0

CP38WET	SAFE Wetlands	51	0	51
CP43	Prairie Strips	0	0	0
TOTAL WATER QUALITY PRACTICES³		234,103	142,065	92,037

¹ Total acres expiring as of September 30, 2021.

² Number of expiring acres that reenrolled as of October 31, 2021.

³ Acres may not sum to total due to rounding.

Geographic Distribution

Figure 1 shows the geographic distribution of FY 2021 newly enrolled CRP water quality acreage across the United States. The data by each water quality practice by state are shown in Appendix Table A1.

Figure 1. New Enrollments FY 2021, All Water Quality Practices

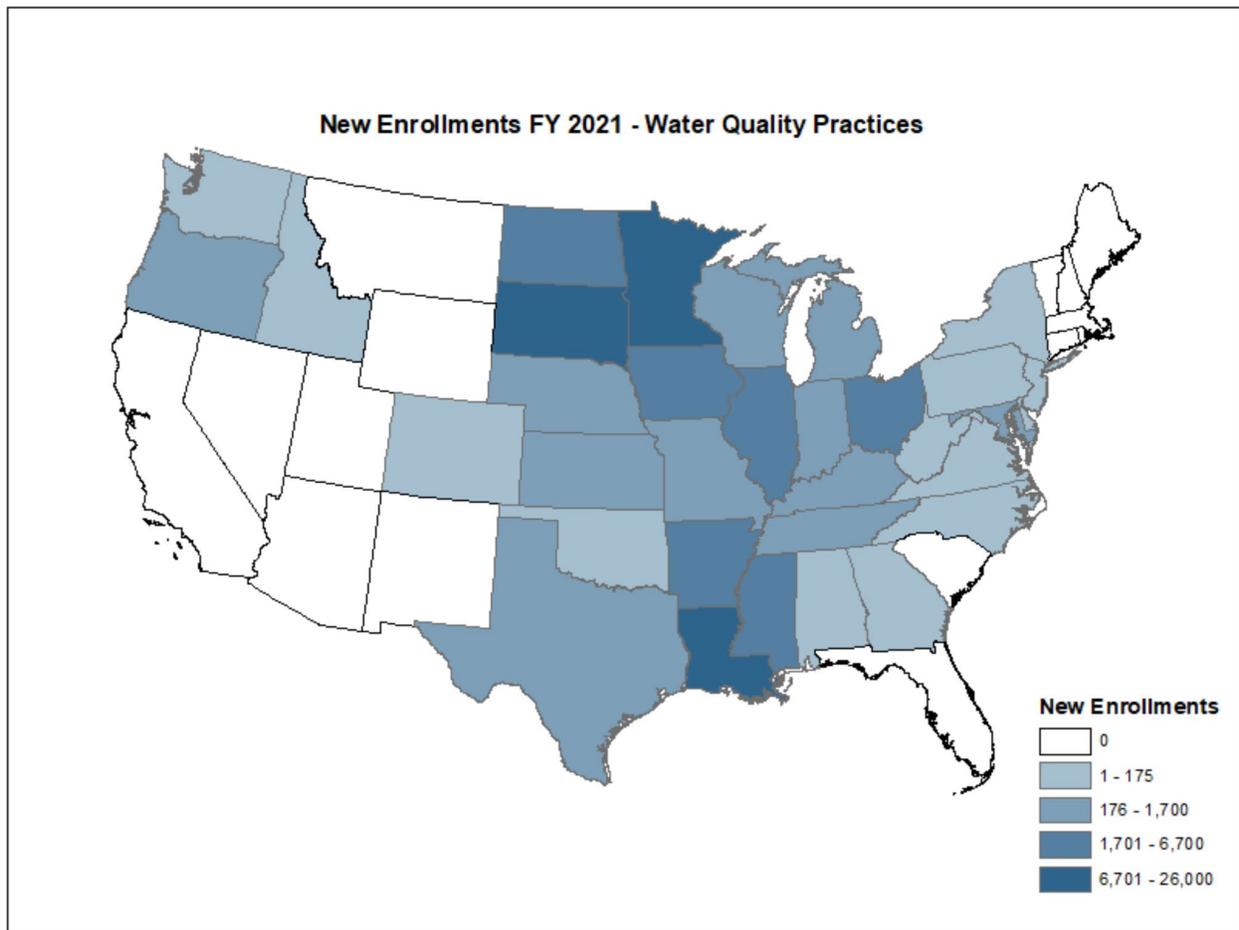
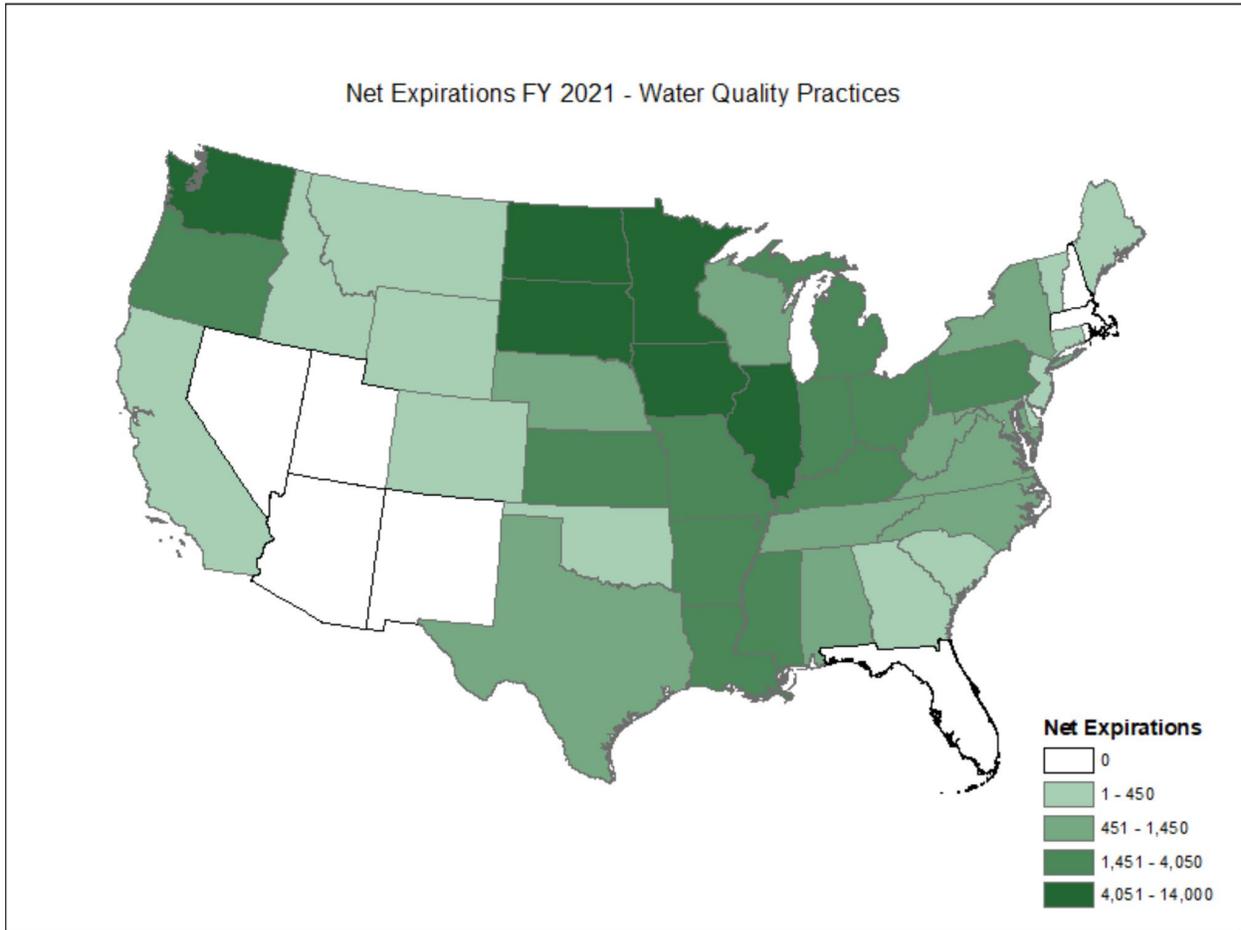


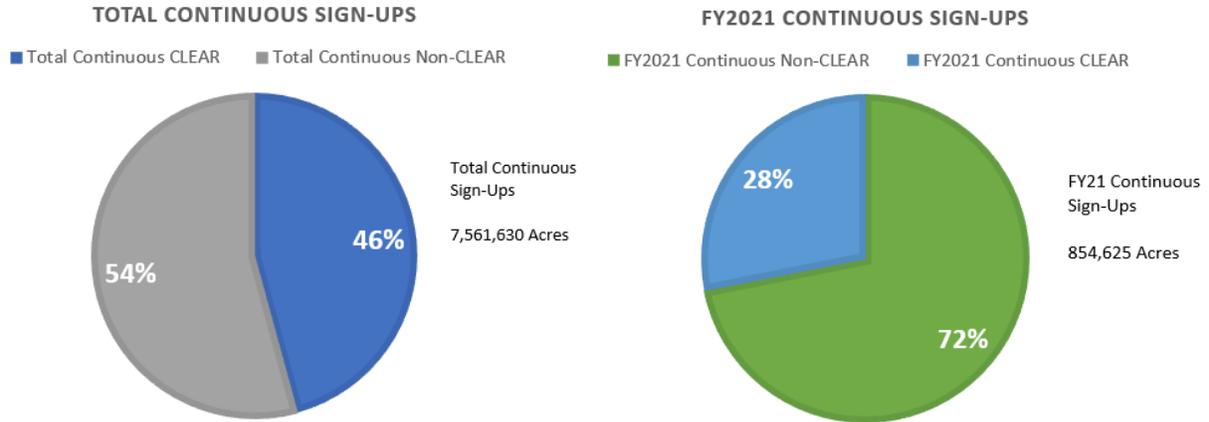
Figure 2 shows the geographic distribution of net expirations for all water quality practices in FY 2021. State level data for net expired acres are shown in Appendix Table A2.

Figure 2. Net Expirations FY 2021, All Water Quality Practices



Comparison of CLEAR Practices to Non-CLEAR Practices for Continuous Sign-Ups

The 2018 Farm Bill stipulates that, to the maximum extent practicable, not less than 40 percent of the acres enrolled in CRP under continuous signup shall be CLEAR acres. As of the end of FY 2021, the overall percent of total continuous acres in CLEAR practices was 46 percent (accounting for current contracts that could have been enrolled up to 15 years ago). For the continuous signup held during FY 2021, the percentage was 28 percent.



Estimated Water Quality Benefits

CRP practices reduce the amount of nutrients leaving a field in runoff and percolate, leading to water quality benefits.¹ Table 3 shows estimated water quality benefits for all CRP water quality practice enrolled acres in FY 2021. Water quality practices reduced nutrient losses in 2021 by an estimated 355 million pounds of nitrogen and 70 million pounds of phosphorus, compared to land that is cropped. CRP water quality practices reduced sedimentation by 150 million tons in 2021.

Table 3. Water Quality Benefits, FY 2021

Reductions (Not leaving field or intercepted by buffers)	
Sediment (million tons)	150
Nitrogen (million lbs.)	355
Phosphorous (million lbs.)	70

¹ More information and documentation on the benefits estimation methodology are available at the FSA website: https://www.fsa.usda.gov/Assets/USDA-FSA-Public/usdfiles/EPAS/PDF/estimation_methodology.pdf.

Appendix

Table A1. New Enrollments FY 2021 (Acres) - Water Quality Practices, by State (page 1)

STATE	GRASS WATERWAYS (CP8)	SHALLOW WATER AREAS FOR WILDLIFE (CP9)	CONTOUR GRASS STRIPS (CP15A)	CONTOUR GRASS STRIPS (CP15B)	FILTER-STRIPS (CP21)	DENITRIFYING BIOREACTOR ON FILTER-STRIPS (CP21B)	SATURATED FILTER-STRIPS (CP21S)	RIPARIAN BUFFERS (CP22)	DENITRIFYING BIOREACTOR ON RIPARIAN BUFFERS (CP22B)
ALABAMA	0	0	0	0	7	0	0	143	0
ALASKA	0	0	0	0	0	0	0	0	0
ARIZONA	0	0	0	0	0	0	0	0	0
ARKANSAS	0	0	0	0	36	0	0	103	0
CALIFORNIA	0	0	0	0	0	0	0	0	0
COLORADO	0	0	0	0	0	0	0	0	0
CONNECTICUT	0	0	0	0	0	0	0	0	0
DELAWARE	0	7	0	0	13	0	0	0	0
FLORIDA	0	0	0	0	0	0	0	0	0
GEORGIA	0	0	0	0	0	0	0	0	0
HAWAII	0	0	0	0	0	0	0	0	0
IDAHO	0	0	0	0	4	0	0	0	0
ILLINOIS	395	51	0	0	668	2	0	569	0
INDIANA	172	0	0	0	266	15	0	38	0
IOWA	205	66	19	2	807	1	4	230	0
KANSAS	51	0	0	28	57	0	0	2	0
KENTUCKY	150	25	0	0	353	3	0	18	0
LOUISIANA	0	0	0	0	0	0	0	7	0
MAINE	0	0	0	0	0	0	0	0	0
MARYLAND	3	26	0	0	245	0	0	69	0
MASSACHUSETTS	0	0	0	0	0	0	0	0	0
MICHIGAN	0	0	0	0	72	0	0	5	0
MINNESOTA	20	0	17	0	588	0	14	129	4
MISSISSIPPI	0	10	0	0	12	0	0	523	6
MISSOURI	6	0	0	0	118	3	0	29	0
MONTANA	0	0	0	0	0	0	0	0	0
NEBRASKA	27	0	0	0	178	0	0	3	0
NEVADA	0	0	0	0	0	0	0	0	0
NEW HAMPSHIRE	0	0	0	0	0	0	0	0	0
NEW JERSEY	8	0	0	0	35	0	0	6	0
NEW MEXICO	0	0	0	0	0	0	0	0	0
NEW YORK	0	0	0	0	24	0	0	128	0
NORTH CAROLINA	2	0	0	0	2	0	0	60	0
NORTH DAKOTA	0	0	0	0	251	0	0	0	0
OHIO	381	5	0	0	954	0	1	136	1
OKLAHOMA	0	0	0	0	0	0	0	31	0
OREGON	0	0	0	0	5	0	0	165	0
PENNSYLVANIA	2	0	3	0	3	0	0	113	0
PUERTO RICO	0	0	0	0	0	0	0	0	0
RHODE ISLAND	0	0	0	0	0	0	0	0	0
SOUTH CAROLINA	0	0	0	0	0	0	0	0	0
SOUTH DAKOTA	20	0	0	0	204	0	0	43	1
TENNESSEE	3	15	0	0	70	0	0	31	0
TEXAS	4	0	0	13	0	0	0	136	0
UTAH	0	0	0	0	0	0	0	0	0
VERMONT	0	0	0	0	0	0	0	0	0
VIRGINIA	0	0	0	0	47	0	0	108	0
WASHINGTON	0	0	0	0	1	1	0	111	0
WEST VIRGINIA	0	0	0	0	0	0	0	65	0
WISCONSIN	7	13	0	0	581	0	0	19	0
WYOMING	0	0	0	0	0	0	0	0	0
TOTAL	1,456	217	40	43	5,600	25	20	3,019	12

Table A1. New Enrollments FY 2021 (Acres) - Water Quality Practices, by State (page 2)

STATE	SATURATED RIPARIAN BUFFERS (CP22S)	WETLAND RESTORATION (CP23)	WETLAND RESTORATION ON NON-FLOODPLAIN (CP23A)	MARGINAL PASTURE BUFFERS-WILDLIFE (CP29)	MARGINAL PASTURE BUFFERS-WETLAND (CP30)	BOTTOMLAND AND HARDWOOD TREES (CP31)	DUCK NESTING HABITAT (CP37)	SAFE BUFFERS (CP38BUF)	SAFE WETLANDS (CP38WET)	PRAIRIE STRIPS (CP43)	ALL WATER QUALITY PRACTICES
ALABAMA	0	0	0	0	0	0	0	0	0	0	150
ALASKA	0	0	0	0	0	0	0	0	0	0	0
ARIZONA	0	0	0	0	0	0	0	0	0	0	0
ARKANSAS	0	1,125	2,271	0	0	195	0	0	0	0	3,730
CALIFORNIA	0	0	0	0	0	0	0	0	0	0	0
COLORADO	0	0	0	0	0	0	0	0	0	9	9
CONNECTICUT	0	0	0	0	0	0	0	0	0	0	0
DELAWARE	0	0	7	0	0	0	0	0	0	0	27
FLORIDA	0	0	0	0	0	0	0	0	0	0	0
GEORGIA	0	0	0	26	0	0	0	0	0	0	26
HAWAII	0	0	0	0	0	0	0	0	0	0	0
IDAHO	0	0	0	0	0	0	0	0	0	0	4
ILLINOIS	0	942	924	13	0	389	0	15	38	2,176	6,182
INDIANA	0	219	183	0	0	337	0	0	0	164	1,392
IOWA	0	1,370	79	60	14	42	167	0	0	1,648	4,713
KANSAS	0	136	142	0	0	0	0	0	0	15	431
KENTUCKY	0	50	5	16	0	15	0	0	0	0	635
LOUISIANA	0	4,018	10,417	0	0	1,553	0	0	0	0	15,995
MAINE	0	0	0	0	0	0	0	0	0	0	0
MARYLAND	0	17	24	0	0	0	0	0	0	2	386
MASSACHUSETTS	0	0	0	0	0	0	0	0	0	0	0
MICHIGAN	0	44	310	4	0	0	0	0	43	47	525
MINNESOTA	0	2,132	20,981	0	0	0	771	0	0	481	25,137
MISSISSIPPI	0	459	138	0	0	2,592	0	0	169	0	3,908
MISSOURI	6	1,187	146	0	9	18	0	0	0	0	1,521
MONTANA	0	0	0	0	0	0	0	0	0	0	0
NEBRASKA	0	552	139	55	16	0	0	0	0	82	1,052
NEVADA	0	0	0	0	0	0	0	0	0	0	0
NEW HAMPSHIRE	0	0	0	0	0	0	0	0	0	0	0
NEW JERSEY	0	0	0	0	0	0	0	0	0	0	49
NEW MEXICO	0	0	0	0	0	0	0	0	0	0	0
NEW YORK	0	0	0	6	0	0	0	0	0	0	158
NORTH CAROLINA	0	0	0	0	0	0	0	0	0	0	63
NORTH DAKOTA	0	194	3,218	0	0	0	1,937	0	1,094	0	6,694
OHIO	0	530	883	53	0	0	0	0	0	34	2,978
OKLAHOMA	0	15	0	0	0	0	0	0	0	0	46
OREGON	0	0	0	676	0	0	0	0	0	0	846
PENNSYLVANIA	0	0	0	1	0	0	0	0	0	0	122
PUERTO RICO	0	0	0	0	0	0	0	0	0	0	0
RHODE ISLAND	0	0	0	0	0	0	0	0	0	0	0
SOUTH CAROLINA	0	0	0	0	0	0	0	0	0	0	0
SOUTH DAKOTA	0	1,269	4,363	338	213	0	12,310	0	186	401	19,347
TENNESSEE	0	60	0	0	0	295	0	0	0	44	518
TEXAS	0	0	276	0	0	0	0	0	0	0	429
UTAH	0	0	0	0	0	0	0	0	0	0	0
VERMONT	0	0	0	0	0	0	0	0	0	0	0
VIRGINIA	0	0	0	12	0	0	0	0	0	0	166
WASHINGTON	0	0	0	0	2	0	0	0	0	0	116
WEST VIRGINIA	0	0	0	0	0	0	0	0	0	0	65
WISCONSIN	0	107	14	8	0	0	0	0	0	17	765
WYOMING	0	0	0	0	0	0	0	0	0	0	0
TOTAL	6	14,424	44,519	1,267	255	5,433	15,185	15	1,529	5,119	98,185

Table A2. Net Expirations FY 2021 (Acres) - Water Quality Practices, by State

STATE	GRASS WATERWAYS (CP8)	SHALLOW WATER AREAS FOR WILDLIFE (CP9)	CONTOUR GRASS STRIPS (CP15A)	CONTOUR GRASS STRIPS (CP15B)	FILTER-STRIPS (CP21)	RIPARIAN BUFFERS (CP22)	WETLAND RESTORATION (CP23)	WETLAND RESTORATION NON-FLOODPLAIN (CP23A)	MARGINAL PASTURE BUFFERS-WILDLIFE (CP29)	MARGINAL PASTURE BUFFERS-WETLAND (CP30)	BOTTOMLAND HARDWOOD TREES (CP31)	DUCK NESTING HABITAT (CP37)	SAFE WETLANDS (CP38WET)	ALL WATER QUALITY PRACTICES
ALABAMA	0	7	0	0	0	711	0	0	0	0	21	0	0	738
ALASKA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARIZONA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ARKANSAS	0	17	0	0	212	1,607	742	0	13	0	798	0	0	3,388
CALIFORNIA	0	0	0	0	0	110	0	0	0	0	0	0	0	110
COLORADO	29	12	0	0	0	5	0	39	0	0	0	0	0	85
CONNECTICUT	0	0	0	0	0	1	0	0	0	0	0	0	0	1
DELAWARE	0	17	0	0	16	0	7	0	0	0	0	0	0	39
FLORIDA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GEORGIA	11	0	0	0	0	24	0	0	26	0	0	0	0	61
HAWAII	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IDAHO	0	3	0	0	49	78	0	0	0	30	0	0	0	160
ILLINOIS	1,419	249	8	8	3,093	2,092	830	134	20	0	-4	0	0	7,850
INDIANA	936	14	3	0	1,632	126	62	104	0	26	227	0	8	3,131
IOWA	1,200	689	421	14	3,400	403	5,552	134	496	75	42	0	0	12,427
KANSAS	813	30	33	89	1,103	44	134	255	0	0	0	0	0	2,500
KENTUCKY	246	53	0	0	398	870	0	0	1,533	0	105	0	0	3,204
LOUISIANA	0	73	0	0	0	72	1,120	277	0	0	884	0	0	2,427
MAINE	10	0	0	0	0	1	0	0	0	11	0	0	0	22
MARYLAND	12	63	0	0	898	77	59	0	12	0	0	0	0	1,121
MASSACHUSETTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MICHIGAN	55	52	0	0	1,477	144	240	1,102	4	6	0	0	0	3,080
MINNESOTA	146	11	124	0	2,768	1,112	308	1,839	16	108	0	22	0	6,454
MISSISSIPPI	0	5	0	0	154	3,437	86	-633	0	0	105	0	0	3,155
MISSOURI	137	58	55	0	778	600	178	29	162	248	65	0	0	2,309
MONTANA	0	0	0	0	65	5	0	0	0	0	0	0	0	70
NEBRASKA	39	0	31	13	621	25	28	48	11	19	0	0	0	834
NEVADA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NEW HAMPSHIRE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NEW JERSEY	8	0	0	0	51	8	0	0	0	0	0	0	0	67
NEW MEXICO	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NEW YORK	0	0	0	0	89	492	0	0	300	125	2	0	0	1,007
NORTH CAROLINA	3	24	0	0	109	588	67	0	0	0	0	0	0	791
NORTH DAKOTA	2	0	0	0	270	3	274	243	0	0	0	3,266	0	4,058
OHIO	341	22	1	0	2,087	237	42	97	163	1	0	0	0	2,990
OKLAHOMA	23	0	0	0	11	45	0	0	0	0	356	0	0	436
OREGON	6	0	0	0	139	1,529	0	0	182	2	0	0	0	1,858
PENNSYLVANIA	20	0	11	0	36	1,314	9	0	51	26	0	0	0	1,468
PUERTO RICO	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RHODE ISLAND	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOUTH CAROLINA	0	0	0	0	67	130	0	0	0	0	0	0	0	197
SOUTH DAKOTA	75	0	5	0	243	626	890	2,612	502	2,230	0	6,776	33	13,958
TENNESSEE	11	3	0	3	150	69	71	0	5	0	254	0	10	566
TEXAS	113	10	0	0	10	1,038	0	0	46	0	0	0	0	1,217
UTAH	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VERMONT	0	0	0	0	22	154	0	0	0	0	0	0	0	176
VIRGINIA	7	6	0	0	162	642	0	0	26	0	0	0	0	843
WASHINGTON	34	0	6,424	0	455	403	0	0	0	12	0	0	0	7,328
WEST VIRGINIA	0	0	0	0	87	598	0	0	0	0	0	0	0	684
WISCONSIN	120	90	18	0	460	180	108	48	62	0	0	0	0	1,086
WYOMING	0	0	0	0	0	90	0	0	0	0	0	0	0	90
TOTAL	5,815	1,509	7,135	128	21,110	19,690	10,806	6,328	3,628	2,918	2,856	10,064	51	92,037