

15. 2023 Amendment

This amendment will include updates to the following areas of the 2018 Tuttle Creek WRAPS plan:

1. Targeted areas for BMP implementation
 2. Best Management Practice (BMP) implementation schedule
 3. BMP load reduction figures
 4. Information and Education in the watershed
 5. BMP costs associated with implementation of the WRAPS plan
 6. Benchmarks and milestones
 7. WRAPS plan review schedule
 8. Cost derivations
 9. Appendix tables
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In the summer of 2023, it was requested that the Tuttle Creek WRAPS plan expand its targeted areas for BMP implementation. The EPA Region 7 and the KDHE approved the additional targeted areas in August of 2023 and asked for an amendment to the 2018 approved Nine Element Plan.

A. Amended Targeted Areas for BMP Implementation

The 2018 Tuttle Creek approved WRAPS plan targeted the ‘Little Blue’ and ‘Big Blue’ sub-watersheds for BMP implementation, which was a total of 429,217 acres. These areas included the following HUC 12s:

- Little Blue, HUC 8 10270207 - 149,158 acres:
 - 102702070505
 - 102702070601
 - 102702070602
 - 102702070603
 - 102702070606
- Big Blue, HUC 8 10270205 - 280,059 acres:
 - 102702050201
 - 102702050204
 - 102702050301
 - 102702050302
 - 102702050306
 - 102702050401
 - 102702050402
 - 102702050403
 - 102702050501

This amendment will expand these targeted areas by a total of 277,952 acres and will include the following HUC 12s, which will be considered the ‘**Mainstem**’ sub-watershed, as well as the indicated **riparian corridor** areas, both shown in **Figure A-1**:

- Mainstem, HUC 8 10270205 - 188,175 acres
 - 102702050406

- 102702050502
- 102702050503
- 102702050505
- 102702050506
- Riparian Corridors - 89,777 acres

These corridors are considered to be the land one-half mile on both sides of the water segment and will positively impact the following nine (9) creeks:

 - Bluff Creek
 - Bucksnot Creek
 - Fancy Creek
 - Fancy Creek, North Fork
 - Fancy Creek, West
 - Otter Creek
 - Otter Creek, North
 - School Branch
 - Spring Creek

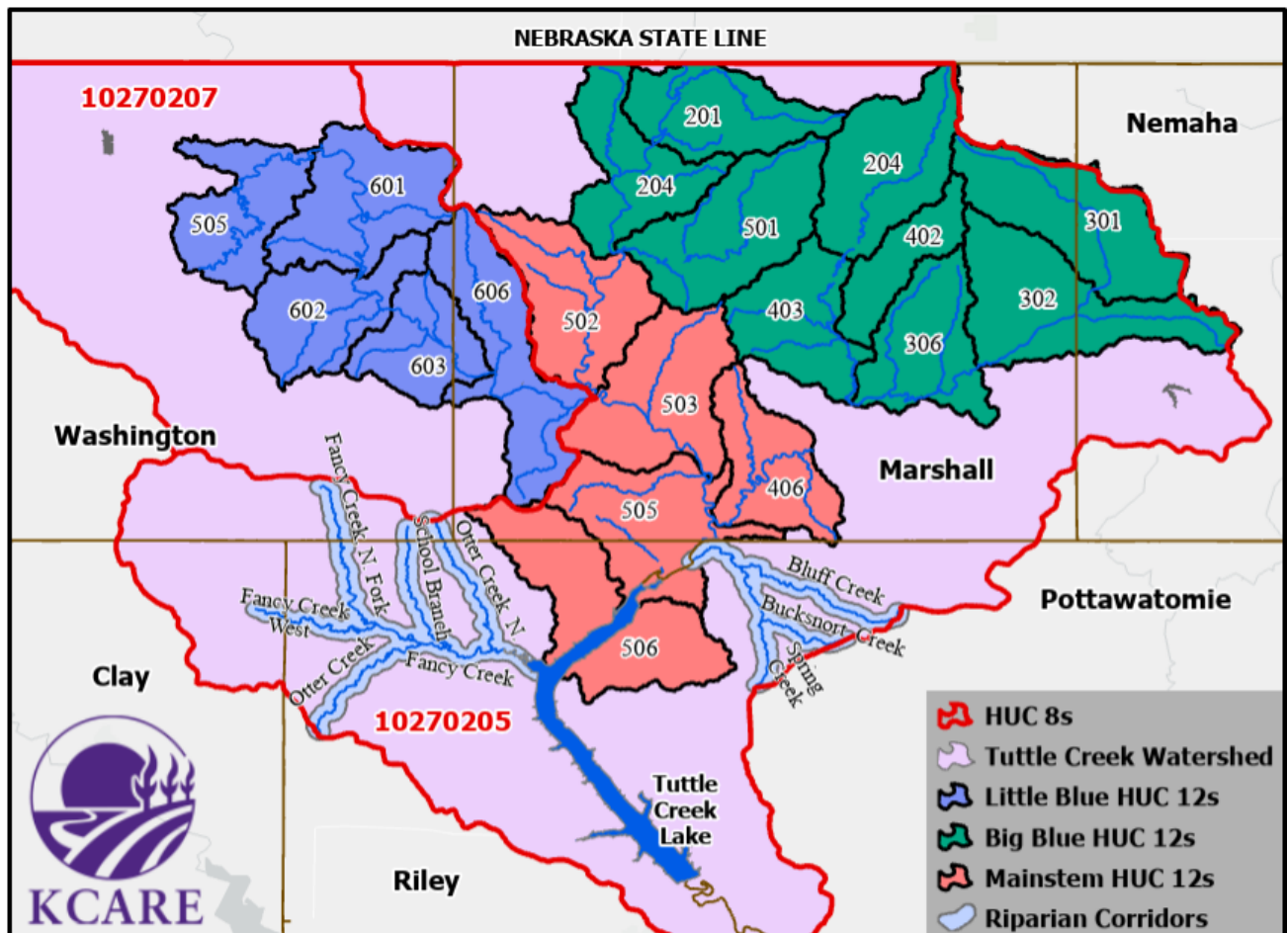


Figure A-1. Tuttle Creek Watershed and the Expanded Targeted Areas

BMP implementation in the Tuttle Creek Watershed will take place throughout all four (4) targeted areas in **Figure A-1** to include the Little Blue, Big Blue, and Mainstem sub-watersheds as well as the Riparian Corridors. Therefore, this amendment will encourage BMP implementation in a total of nineteen (19) HUC 12s, as well as the riparian corridors on nine (9) water segments outside of the HUC 12s listed (**Figure A-2**). This equates to an amended targeted area of 707,169 acres.

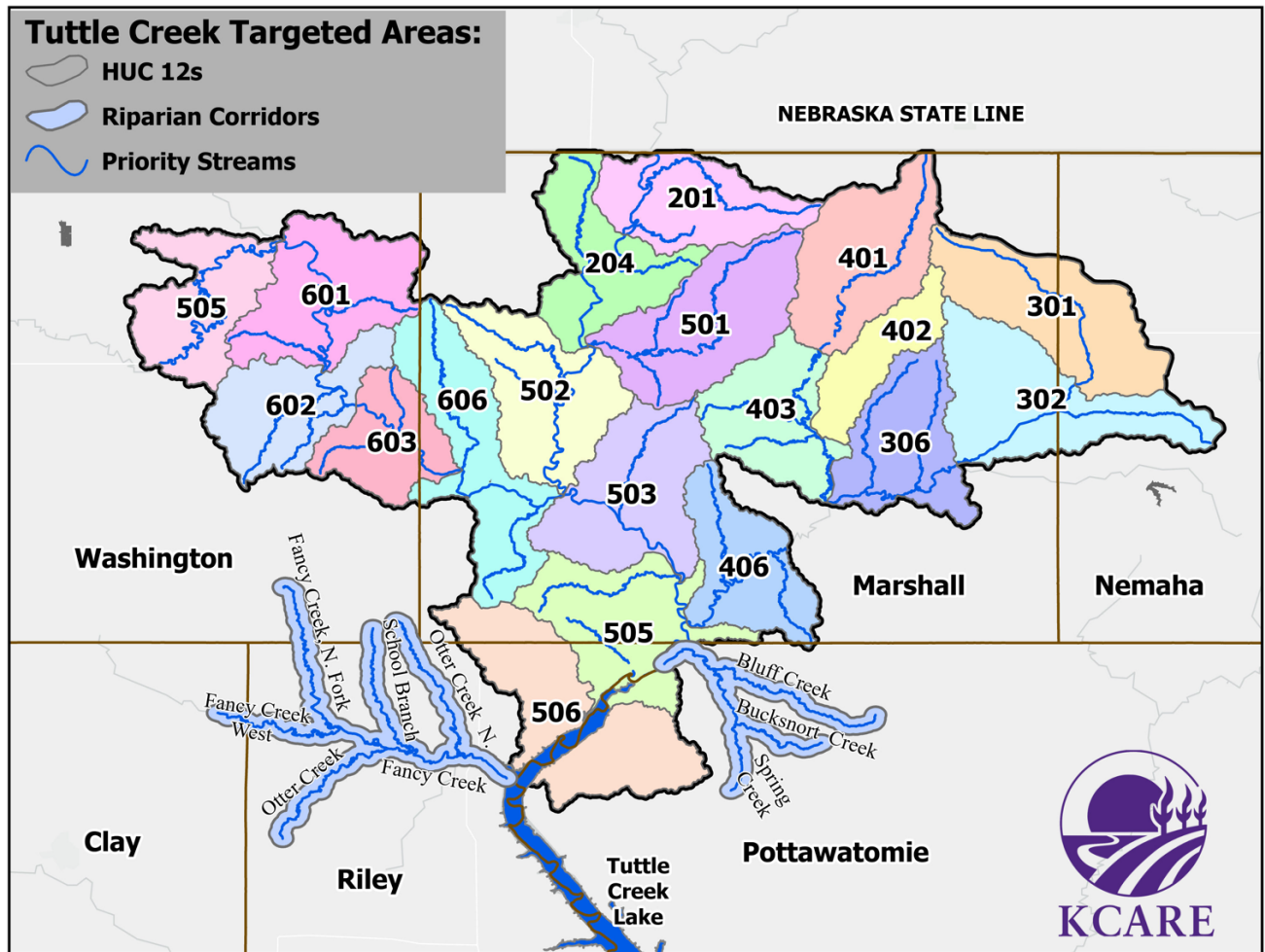


Figure A-2. Targeted HUC 12s and Riparian Corridors for BMP Implementation

Land use calculations in the targeted areas (**Figure A-3** and **Table A-1**) are utilized to determine what areas are most susceptible to non-point source pollutant loading and where BMP implementation will be most beneficial for any given pollutant type.

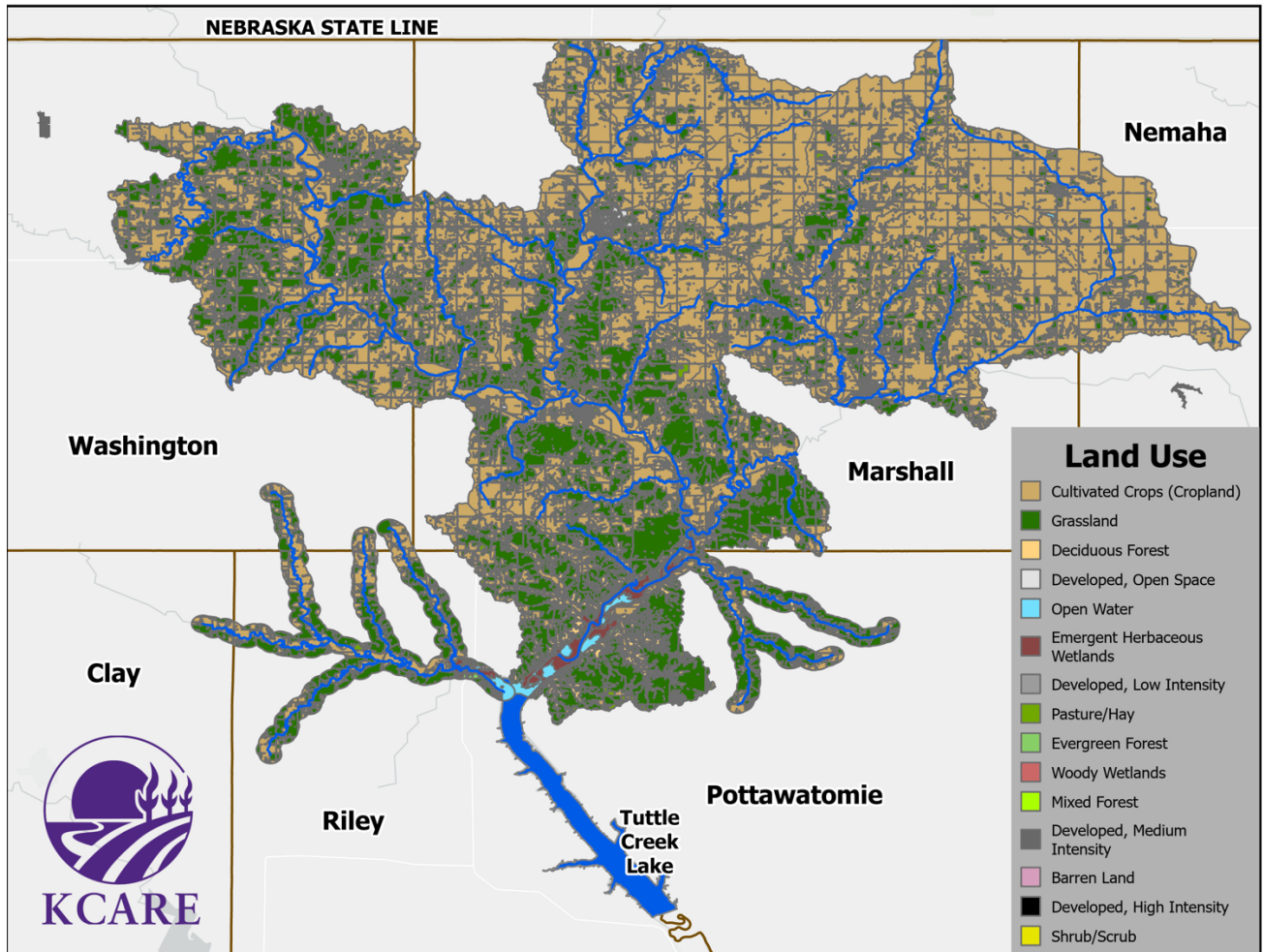


Figure A-3. Tuttle Creek Watershed Land Use in the Targeted Areas

Table A-1. Land Use Acres in the Tuttle Creek Watershed's Targeted Areas

Land Use in the Targeted Areas		
Land Use	Acres	Percent of Targeted Area
Cultivated Crops (Cropland)	335,276	47%
Grassland	209,802	30%
Deciduous Forest	55,195	8%
Developed, Open Space	43,858	6%
Open Water	18,784	3%
Emergent Herbaceous Wetlands	9,547	1%
Developed, Low Intensity	9,027	1%
Pasture/Hay	7,334	1%
Evergreen Forest	5,632	1%
Woody Wetlands	5,137	1%
Mixed Forest	3,364	0%
Developed, Medium Intensity	1,714	0%
Barren Land	1,529	0%
Developed, High Intensity	686	0%
Shrub/Scrub	283	0%
Total Acres	707,169	100%

Table A-2. Land Use Breakdown by Sub-Watershed HUC 12s: Little Blue

Land Use in the Little Blue Sub-Watershed (HUC 10270207)						
Land Use	505	601	602	603	606	Total Acres
Cultivated Crops (Cropland)	12,420	13,338	9,142	11,757	17,928	64,585
Grassland	10,470	16,843	14,513	7,402	13,481	62,709
Deciduous Forest	1,666	1,846	1,730	961	3,017	9,220
Developed, Open Space	985	1,306	1,092	736	1,538	5,657
Open Water	317	791	305	382	458	2,253
Pasture/Hay	730	253	328	0	257	1,568
Woody Wetlands	107	304	235	377	337	1,360
Developed, Low Density	195	334	116	80	456	1,181
Mixed Forest	47	63	124	8	77	319
Developed, Medium Density	27	39	2	2	31	101
Evergreen Forest	2	0	14	29	33	78
Developed, High Intensity	10	10	0	0	17	37
Barren Land	7	4	2	0	20	33
Emergent Herbaceous Wetlands	1	5	0	5	21	32
Shrub/Scrub	4	5	7	5	4	25
Total	26,988	35,143	27,610	21,745	37,675	149,158

Table A-3. Land Use Breakdown by Sub-Watershed HUC 12s: Big Blue

Land Use in the Big Blue Sub-Watershed (HUC 10270205)										
Land Use	201	204	301	302	306	401	402	403	501	Total Acres
Cultivated Crops (Cropland)	18,875	17,418	29,567	28,523	14,117	22,114	10,719	13,025	25,899	180,257
Grassland	4,969	6,180	4,316	7,989	9,276	7,372	3,480	9,711	7,120	60,413
Deciduous Forest	1,831	1,688	778	1,810	2,538	2,015	915	2,476	2,047	16,098
Developed, Open Space	1,056	1,455	1,281	1,483	1,129	1,300	797	957	1,682	11,140
Pasture/Hay	0	153	1,165	845	415	1,168	414	376	60	4,596
Developed, Low Density	85	506	460	247	370	331	120	178	616	2,913
Open Water	342	574	179	246	305	172	63	214	207	2,302
Woody Wetlands	140	309	17	35	213	50	78	256	157	1,255
Developed, Medium Density	2	90	50	3	36	40	3	0	149	373
Evergreen Forest	119	12	0	8	15	1	0	38	10	203
Developed, High Intensity	0	81	7	4	21	8	0	0	56	177
Mixed Forest	24	20	2	11	7	26	9	31	42	172
Shrub/Scrub	0	19	1	30	14	3	1	17	4	89
Emergent Herbaceous Wetlands	6	7	22	2	5	2	4	1	0	49
Barren Land	0	0	0	0	0	12	0	0	10	22
Total	27,449	28,512	37,845	41,236	28,461	34,614	16,603	27,280	38,059	280,059

Table A-4. Land Use Breakdown by Sub-Watershed HUC 12s: Mainstem and the Riparian Corridors

Land Use in the Mainstem Sub-Watershed (HUC 10270205) and Riparian Corridors							
Land Use	406	502	503	505	506	Riparian Corridors	Total Acres
Cultivated Crops (Cropland)	14,799	16,605	14,799	10,720	7,063	26,448	90,434
Grassland	16,288	12,314	16,288	16,892	23,800	1,098	86,680
Mixed Forest	34	41	34	75	246	42,937	43,367
Deciduous Forest	3,040	3,142	3,040	3,559	6,703	10,393	29,877
Emergent Herbaceous Wetlands	63	5	63	2,243	2,047	2,832	7,253
Developed, Medium Density	1,031	924	1,031	903	1,071	198	5,158
Open Water	526	606	526	984	1,576	254	4,472
Pasture/Hay	427	96	427	181	909	1,343	3,383
Developed, Open Space	28	0	28	0	1	1,930	1,987
Evergreen Forest	38	184	38	59	395	719	1,433
Developed, High Intensity	398	226	398	77	200	16	1,315
Developed, Low Density	21	0	21	0	0	1,001	1,043
Woody Wetlands	190	258	190	27	20	64	749
Barren Land	37	3	37	56	17	481	631
Shrub/Scrub	21	10	21	3	52	62	169
Total	36,941	34,414	36,941	35,779	44,100	89,777	277,952

Note that **Table A-4** also represents the amended acres added to the 2018 Tuttle WRAPS plan.

B. Amended Implementation

BMP implementation in the Tuttle Creek Watershed will take place throughout all four (4) targeted areas illustrated in **Figure A-1** to include the Little Blue, Big Blue, and Mainstem sub-watersheds as well as the Riparian Corridors. BMP implementation will take place in priority land use areas within the targeted areas in an effort to improve the following TMDL impairments:

- **Sediment** - in cropland areas and along streambanks
- **Nutrients** (primarily phosphorus) - in cropland and livestock areas, and along streambanks
- **Herbicides** (alachlor and atrazine) - in cropland areas
- ***E. coli*** - in livestock areas

1. Sediment Loss Reductions in the Tuttle Creek Watershed

The Tuttle Creek Watershed has a “high” TMDL ranking for sediment in 12 stream segments and in Tuttle Creek Lake. The Tuttle Creek Watershed contains two (2) priority areas for sediment loss reductions: cultivated crops (**cropland**) and **streambanks**. The amended adoption and implementation of sediment BMPs on cropland and streambank areas in the targeted areas (**Figure A-4**) of the Tuttle Creek Watershed will result in a total sediment load reduction (soil saved) of 2,963,241 tons at the conclusion of this 40-year WRAPs plan.

a. Sediment Loss/Soil Erosion Reductions from Cropland BMP Implementation

According to **Table A-1**, cropland accounts for 335,276 acres, or 47% of the targeted areas, therefore cropland is a priority area for BMP implementation. Cropland Best Management Practices (BMPs) will be implemented in the targeted areas (**Figure A-4**) on 9,639 acres annually to protect local streams and lakes by reducing sediment loss. The amended adoption and implementation of sediment BMPs on **cropland** in the Tuttle Creek Watershed will result in a total sediment load reduction (soil saved) of 862,659 tons at the conclusion of this 40-year WRAPs plan. These BMPs will subsequently reduce nutrient loading as well.

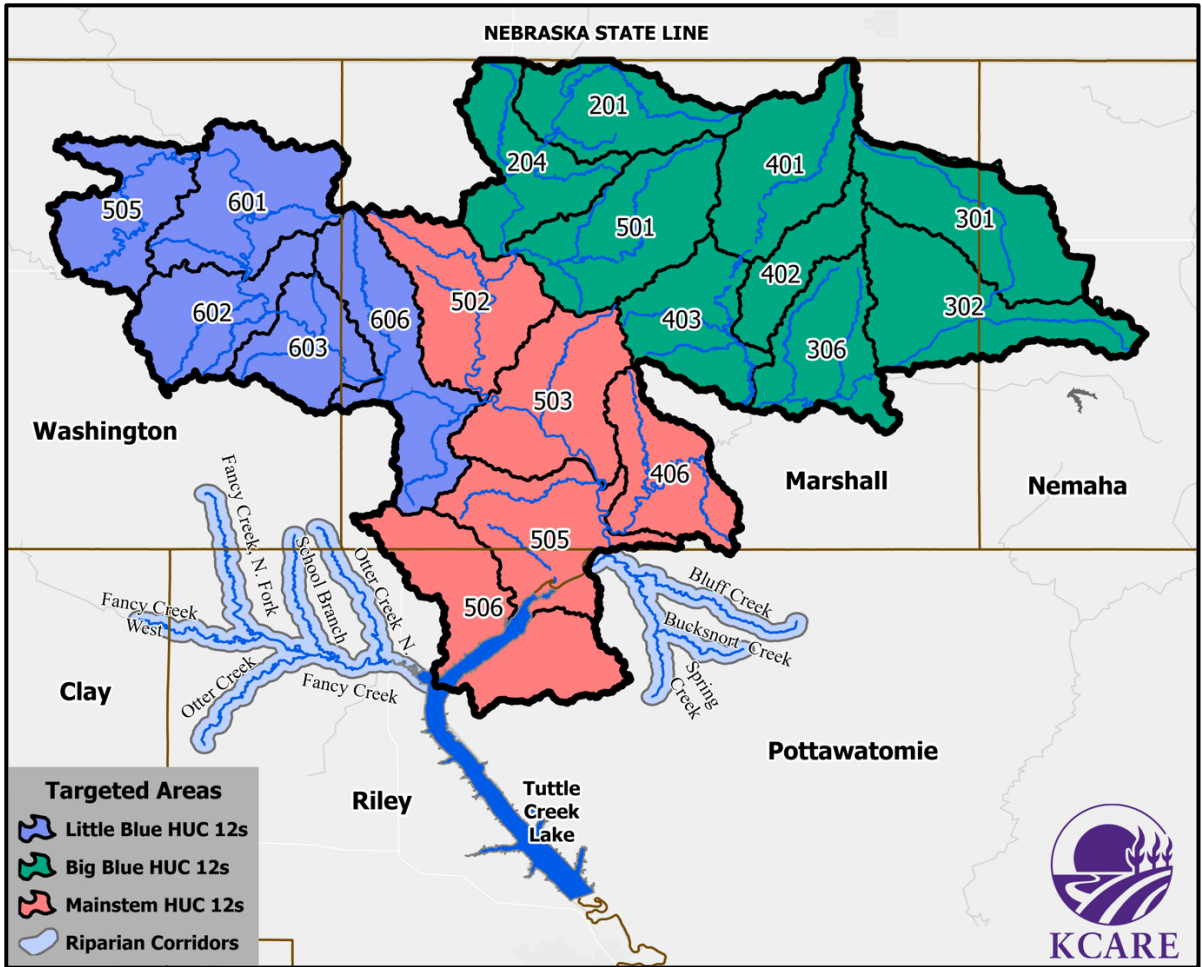


Figure A-4. Sediment Targeted Areas

Within these targeted areas, the following BMPs will be implemented to reduce soil erosion and sediment loss from crop fields:

- buffers,
- cover crops,
- grassed waterways,
- no-till,
- nutrient management plans,
- permanent vegetation,
- subsurface fertilizer application,
- terraces, and
- water retention structures.

Table A-5. Cropland BMPs to Reduce Sediment Loss

BMPs to Reduce Sediment Loss in the Tuttle Creek Watershed			
Protection Measure	Best Management Practices (BMPs)	Adoption Rate Goal	Acres Needing BMPs, Annually
Prevent Sediment Loss from Cropland	Buffers	10%	838
	Cover Crops	20%	1,676
	Grassed Waterways	10%	838
	No-Till	25%	2,095
	Nutrient Management Plans	20%	1,676
	Permanent Vegetation	5%	419
	Subsurface Fertilizer Application	5%	419
	Terraces	15%	1,257
	Water Retention Structures	5%	419

Table A-6. Adoption Rates for Cropland BMP Implementation in the Tuttle Creek Watershed

Annual BMP Adoption Rates to Address Sediment Loss/Soil Erosion (treated acres), Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption
1	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
2	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
3	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
4	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
5	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
6	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
7	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
8	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
9	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
10	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
11	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
12	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
13	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
14	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
15	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
16	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
17	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
18	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
19	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
20	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
21	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
22	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
23	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
24	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
25	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
26	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
27	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
28	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
29	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
30	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
31	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
32	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
33	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
34	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
35	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
36	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
37	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
38	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
39	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
40	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637

Table A-7. Sediment Loss Reductions from Cropland BMP Implementation in the Targeted Areas

Total Annual Soil Erosion Reduction, Cropland BMPs (tons)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	2,054	3,286	1,643	7,702	2,054	1,951	0	1,849	1,027	21,566
2	4,108	6,573	3,286	15,405	4,108	3,903	0	3,697	2,054	43,133
3	6,162	9,859	4,929	23,107	6,162	5,854	0	5,546	3,081	64,699
4	8,216	13,145	6,573	30,809	8,216	7,805	0	7,394	4,108	86,266
5	10,270	16,432	8,216	38,512	10,270	9,756	0	9,243	5,135	107,832
6	12,324	19,718	9,859	46,214	12,324	11,708	0	11,091	6,162	129,399
7	14,378	23,004	11,502	53,916	14,378	13,659	0	12,940	7,189	150,965
8	16,432	26,291	13,145	61,619	16,432	15,610	0	14,788	8,216	172,532
9	18,486	29,577	14,788	69,321	18,486	17,561	0	16,637	9,243	194,098
10	20,540	32,863	16,432	77,023	20,540	19,513	0	18,486	10,270	215,665
11	22,593	36,150	18,075	84,725	22,593	21,464	0	20,334	11,297	237,231
12	24,647	39,436	19,718	92,428	24,647	23,415	0	22,183	12,324	258,798
13	26,701	42,722	21,361	100,130	26,701	25,366	0	24,031	13,351	280,364
14	28,755	46,008	23,004	107,832	28,755	27,318	0	25,880	14,378	301,931
15	30,809	49,295	24,647	115,535	30,809	29,269	0	27,728	15,405	323,497
16	32,863	52,581	26,291	123,237	32,863	31,220	0	29,577	16,432	345,064
17	34,917	55,867	27,934	130,939	34,917	33,171	0	31,425	17,459	366,630
18	36,971	59,154	29,577	138,642	36,971	35,123	0	33,274	18,486	388,197
19	39,025	62,440	31,220	146,344	39,025	37,074	0	35,123	19,513	409,763
20	41,079	65,726	32,863	154,046	41,079	39,025	0	36,971	20,540	431,330
21	43,133	69,013	34,506	161,749	43,133	40,976	0	38,820	21,566	452,896
22	45,187	72,299	36,150	169,451	45,187	42,928	0	40,668	22,593	474,462
23	47,241	75,585	37,793	177,153	47,241	44,879	0	42,517	23,620	496,029
24	49,295	78,872	39,436	184,856	49,295	46,830	0	44,365	24,647	517,595
25	51,349	82,158	41,079	192,558	51,349	48,781	0	46,214	25,674	539,162
26	53,403	85,444	42,722	200,260	53,403	50,733	0	48,062	26,701	560,728
27	55,457	88,731	44,365	207,962	55,457	52,684	0	49,911	27,728	582,295
28	57,511	92,017	46,008	215,665	57,511	54,635	0	51,760	28,755	603,861
29	59,565	95,303	47,652	223,367	59,565	56,586	0	53,608	29,782	625,428
30	61,619	98,590	49,295	231,069	61,619	58,538	0	55,457	30,809	646,994
31	63,672	101,876	50,938	238,772	63,672	60,489	0	57,305	31,836	668,561
32	65,726	105,162	52,581	246,474	65,726	62,440	0	59,154	32,863	690,127
33	67,780	108,449	54,224	254,176	67,780	64,391	0	61,002	33,890	711,694
34	69,834	111,735	55,867	261,879	69,834	66,343	0	62,851	34,917	733,260
35	71,888	115,021	57,511	269,581	71,888	68,294	0	64,699	35,944	754,827
36	73,942	118,308	59,154	277,283	73,942	70,245	0	66,548	36,971	776,393
37	75,996	121,594	60,797	284,986	75,996	72,196	0	68,397	37,998	797,960
38	78,050	124,880	62,440	292,688	78,050	74,148	0	70,245	39,025	819,526
39	80,104	128,166	64,083	300,390	80,104	76,099	0	72,094	40,052	841,093
40	82,158	131,453	65,726	308,093	82,158	78,050	0	73,942	41,079	862,659

b. Sediment Loss Reductions from Streambank BMP Implementation

Streambanks stabilization BMPs have been amended to take place throughout the targeted areas shown in **Figure A-4** to reduce sediment (and nutrient) loading.

This amendment will not change the adoption rate or load reductions made due to streambank stabilization projects. However, it does broaden the targeted area for implementation as demonstrated in **Figure A-4**. Rather than focus on just a few streams as in the 2018 version of this plan, any streambank in the targeted areas shown and in need of restoration are now eligible for adoption.

Stabilization projects will be approved by the SLT each year. Projects are at the discretion of the SLT and will depend on funding amount and sources, as well as landowner approval and desire to complete the project.

There are several methods to stabilize streambanks, and one or more of the BMPs below may be utilized:

- riparian buffers
- field borders
- bottomland timber in wetlands
- streambank restoration, etc.

Table A-8. Streambank BMPs to Reduce Sediment Loss

BMPs to Reduce Sediment Loss in the Tuttle Creek Watershed		
Protection Measure	Best Management Practices (BMPs)	Annual Adoption Rate
Prevent Streambank Erosion	Streambank Stabilization	4,750 feet per year

The implementation of 4,750 feet of streambank stabilization projects annually will result in a cumulative sediment erosion reduction of 2,162,200 tons at the end of this 40-year WRAPS plan (**Table A-9**).

Table A-9. Sediment Loss Reductions from Streambank BMP Implementation

Sediment Loss/Soil Erosion Reductions from Streambank BMP Implmentation			
Year	Streambank Stabilization (feet)	Sediment Loss Reductions (tons)	Cumulative Sediment Loss Reductions (tons)
1	4,750	54,055	54,055
2	4,750	54,055	108,110
3	4,750	54,055	162,165
4	4,750	54,055	216,220
5	4,750	54,055	270,275
6	4,750	54,055	324,330
7	4,750	54,055	378,385
8	4,750	54,055	432,440
9	4,750	54,055	486,495
10	4,750	54,055	540,550
11	4,750	54,055	594,605
12	4,750	54,055	648,660
13	4,750	54,055	702,715
14	4,750	54,055	756,770
15	4,750	54,055	810,825
16	4,750	54,055	864,880
17	4,750	54,055	918,935
18	4,750	54,055	972,990
19	4,750	54,055	1,027,045
20	4,750	54,055	1,081,100
21	4,750	54,055	1,135,155
22	4,750	54,055	1,189,210
23	4,750	54,055	1,243,265
24	4,750	54,055	1,297,320
25	4,750	54,055	1,351,375
26	4,750	54,055	1,405,430
27	4,750	54,055	1,459,485
28	4,750	54,055	1,513,540
29	4,750	54,055	1,567,595
30	4,750	54,055	1,621,650
31	4,750	54,055	1,675,705
32	4,750	54,055	1,729,760
33	4,750	54,055	1,783,815
34	4,750	54,055	1,837,870
35	4,750	54,055	1,891,925
36	4,750	54,055	1,945,980
37	4,750	54,055	2,000,035
38	4,750	54,055	2,054,090
39	4,750	54,055	2,108,145
40	4,750	54,055	2,162,200

c. Total Sediment Loss Reductions in the Tuttle Creek Watershed

The implementation of sediment BMPs on cropland and streambanks in the Tuttle Creek Watershed’s targeted areas will result in exceeding the sediment TMDL goal of 3 million tons. At the end of this 40-year WRAPS plan, 3,024,859 tons of soil will be saved.

Table A-10. Meeting the Sediment TMDL in the Tuttle Creek Watershed

Achieving the Tuttle Creek Watershed Sediment TMDL		
Priority Area	Total Erosion Reduction	% of Sediment TMDL
Cropland	862,659	29%
Streambank	2,162,200	72%
Total	3,024,859	101%

Table A-11. Total Sediment Load Reductions in the Tuttle Creek Watershed

Sediment Loss Reductions from WRAPS Plan BMP Implementation				
Year	Cropland Reduction (tons/year)	Streambank Reduction (tons/year)	Cumulative Load Reduction (tons/year)	% of Sediment Goal
1	21,566	54,055	75,621	3%
2	43,133	108,110	151,243	5%
3	64,699	162,165	226,864	8%
4	86,266	216,220	302,486	10%
5	107,832	270,275	378,107	13%
6	129,399	324,330	453,729	15%
7	150,965	378,385	529,350	18%
8	172,532	432,440	604,972	20%
9	194,098	486,495	680,593	23%
10	215,665	540,550	756,215	25%
11	237,231	594,605	831,836	28%
12	258,798	648,660	907,458	30%
13	280,364	702,715	983,079	33%
14	301,931	756,770	1,058,701	35%
15	323,497	810,825	1,134,322	38%
16	345,064	864,880	1,209,944	40%
17	366,630	918,935	1,285,565	43%
18	388,197	972,990	1,361,187	45%
19	409,763	1,027,045	1,436,808	48%
20	431,330	1,081,100	1,512,430	50%
21	452,896	1,135,155	1,588,051	53%
22	474,462	1,189,210	1,663,672	55%
23	496,029	1,243,265	1,739,294	58%
24	517,595	1,297,320	1,814,915	60%
25	539,162	1,351,375	1,890,537	63%
26	560,728	1,405,430	1,966,158	66%
27	582,295	1,459,485	2,041,780	68%
28	603,861	1,513,540	2,117,401	71%
29	625,428	1,567,595	2,193,023	73%
30	646,994	1,621,650	2,268,644	76%
31	668,561	1,675,705	2,344,266	78%
32	690,127	1,729,760	2,419,887	81%
33	711,694	1,783,815	2,495,509	83%
34	733,260	1,837,870	2,571,130	86%
35	754,827	1,891,925	2,646,752	88%
36	776,393	1,945,980	2,722,373	91%
37	797,960	2,000,035	2,797,995	93%
38	819,526	2,054,090	2,873,616	96%
39	841,093	2,108,145	2,949,238	98%
40	862,659	2,162,200	3,024,859	101%
Sediment Loss Reduction Goal: 3,000,000 tons				

It is important to note that the sediment BMPs implemented in this WRAPS plan also will reduce nutrient leaching and nutrient loading into nearby water segments. Excess nutrients cause lower DO levels and higher pH levels than desirable and required by KDHE. Therefore, reducing soil loss and nutrient pollution will subsequently address the DO and pH TMDLs by improving DO and pH levels in the Tuttle Creek Watershed.

2. Nutrient Load Reductions in the Tuttle Creek Watershed

The Tuttle Creek Watershed has a “high” TMDL ranking for eutrophication (excess nutrients such as phosphorus and nitrogen), in 14 stream segments and in Tuttle Creek Lake. The Tuttle Creek Watershed contains three (3) priority areas for nutrient (specifically phosphorus) load reductions: cultivated crops (**cropland**), **streambanks**, and **livestock** areas. The amended adoption and implementation of sediment BMPs on cropland and streambank areas will simultaneously result in nutrient load reductions. These nutrient load reductions in combination with the addition of BMP implementation in livestock areas, within the targeted areas (**Figure A-5**) of the Tuttle Creek Watershed, will result in a total phosphorus load reduction of 3,684,088 pounds at the conclusion of this 40-year WRAPs plan.

Unlike phosphorus, the eutrophication TMDL does not have a specific load reduction goal for nitrogen. Therefore, this WRAPS plan does not have a load reduction goal for nitrogen, however, nitrogen loading will subsequently be reduced with the BMP implementation outlined below. This amendment does include nitrogen load reduction numbers as they do positively impact the watershed and the eutrophication TMDL. This plan will reduce nitrogen loading by 1,866,593 pounds at the conclusion of this 40-year WRAPS plan.

a. Nutrient Load Reductions from Cropland BMP Implementation

As previously mentioned, cropland accounts for 335,276 acres or 47% of the targeted areas, therefore cropland is a priority area for BMP implementation (**Table A-1**). Cropland BMPs will be implemented in the targeted areas (**Figure A-5**) to protect local streams and lakes by reducing sediment loss, which will subsequently reduce nutrient loading as well. The amended adoption and implementation of the sediment BMPs on **cropland** in the Tuttle Creek Watershed will result in a total phosphorus load reduction of 374,708 pounds at the conclusion of this 40-year WRAPs plan.

Although not a goal of this plan, the cropland BMPs will subsequently reduce nitrogen loading as well. The amended adoption and implementation of the sediment BMPs on **cropland** in the Tuttle Creek Watershed will result in a total nitrogen load reduction of 1,742,169 pounds at the conclusion of this 40-year WRAPs plan.

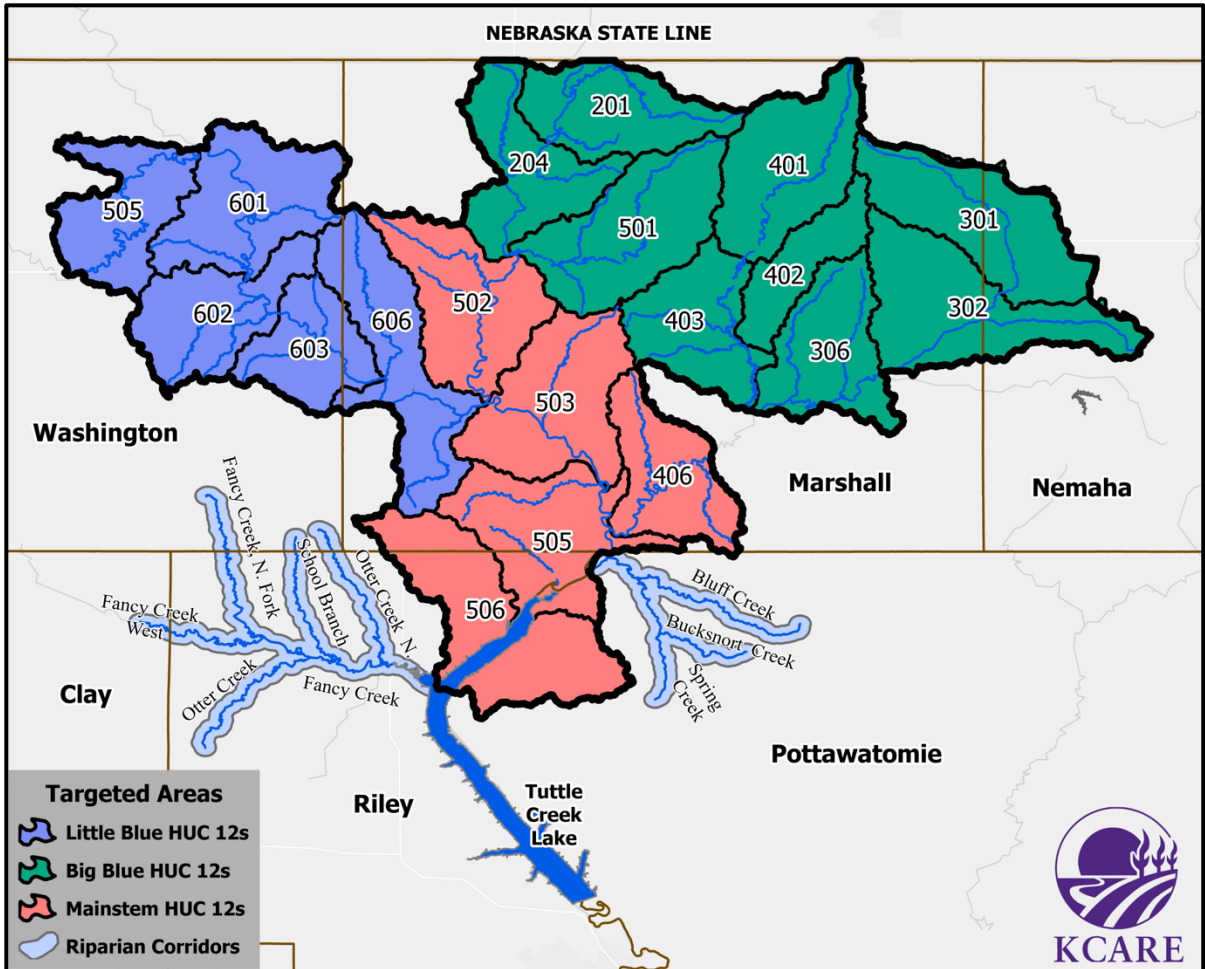


Figure A-5. Sediment and Nutrient Targeted Areas

Within these targeted areas, the following BMPs will be implemented to reduce sediment loss and nutrient (phosphorus and nitrogen) loading from crop fields:

- buffers,
- cover crops,
- grassed waterways,
- no-till,
- nutrient management plans,
- permanent vegetation, terraces,
- subsurface fertilizer application,
- terraces, and
- water retention structures.

Table A-12. Cropland BMPs to Reduce Nutrient Loading

BMPs to Reduce Nutrient Loading in the Tuttle Creek Watershed			
Protection Measure	Best Management Practices (BMPs)	Adoption Rate Goal	Acres Needing BMPs, Annually
Prevent Sediment Loss and <u>Phosphorus</u> Loading from Cropland	Buffers	10%	838
	Cover Crops	20%	1,676
	Grassed Waterways	10%	838
	No-Till	25%	2,095
	Nutrient Management Plans	20%	1,676
	Permanent Vegetation	5%	419
	Subsurface Fertilizer Application	5%	419
	Terraces	15%	1,257
	Water Retention Structures	5%	419

Table A-13. Adoption Rates for Cropland BMP Implementation in the Tuttle Creek Watershed

Annual BMP Adoption Rates to Address Sediment and Nutrient Loading (treated acres), Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption
1	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
2	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
3	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
4	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
5	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
6	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
7	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
8	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
9	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
10	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
11	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
12	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
13	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
14	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
15	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
16	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
17	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
18	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
19	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
20	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
21	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
22	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
23	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
24	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
25	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
26	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
27	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
28	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
29	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
30	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
31	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
32	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
33	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
34	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
35	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
36	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
37	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
38	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
39	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
40	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637

Table A-14. Phosphorus Load Reductions from Cropland BMP Implementation in the Targeted Areas

Total Annual Phosphorus Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	971	1,941	777	1,941	971	922	485	874	485	9,368
2	1,941	3,883	1,553	3,883	1,941	1,844	971	1,747	971	18,735
3	2,912	5,824	2,330	5,824	2,912	2,767	1,456	2,621	1,456	28,103
4	3,883	7,766	3,106	7,766	3,883	3,689	1,941	3,495	1,941	37,471
5	4,854	9,707	3,883	9,707	4,854	4,611	2,427	4,368	2,427	46,839
6	5,824	11,649	4,660	11,649	5,824	5,533	2,912	5,242	2,912	56,206
7	6,795	13,590	5,436	13,590	6,795	6,455	3,398	6,116	3,398	65,574
8	7,766	15,532	6,213	15,532	7,766	7,378	3,883	6,989	3,883	74,942
9	8,737	17,473	6,989	17,473	8,737	8,300	4,368	7,863	4,368	84,309
10	9,707	19,415	7,766	19,415	9,707	9,222	4,854	8,737	4,854	93,677
11	10,678	21,356	8,543	21,356	10,678	10,144	5,339	9,610	5,339	103,045
12	11,649	23,298	9,319	23,298	11,649	11,067	5,824	10,484	5,824	112,413
13	12,620	25,239	10,096	25,239	12,620	11,989	6,310	11,358	6,310	121,780
14	13,590	27,181	10,872	27,181	13,590	12,911	6,795	12,231	6,795	131,148
15	14,561	29,122	11,649	29,122	14,561	13,833	7,281	13,105	7,281	140,516
16	15,532	31,064	12,426	31,064	15,532	14,755	7,766	13,979	7,766	149,883
17	16,503	33,005	13,202	33,005	16,503	15,678	8,251	14,852	8,251	159,251
18	17,473	34,947	13,979	34,947	17,473	16,600	8,737	15,726	8,737	168,619
19	18,444	36,888	14,755	36,888	18,444	17,522	9,222	16,600	9,222	177,987
20	19,415	38,830	15,532	38,830	19,415	18,444	9,707	17,473	9,707	187,354
21	20,386	40,771	16,309	40,771	20,386	19,366	10,193	18,347	10,193	196,722
22	21,356	42,713	17,085	42,713	21,356	20,289	10,678	19,221	10,678	206,090
23	22,327	44,654	17,862	44,654	22,327	21,211	11,164	20,094	11,164	215,457
24	23,298	46,596	18,638	46,596	23,298	22,133	11,649	20,968	11,649	224,825
25	24,269	48,537	19,415	48,537	24,269	23,055	12,134	21,842	12,134	234,193
26	25,239	50,479	20,192	50,479	25,239	23,977	12,620	22,715	12,620	243,561
27	26,210	52,420	20,968	52,420	26,210	24,900	13,105	23,589	13,105	252,928
28	27,181	54,362	21,745	54,362	27,181	25,822	13,590	24,463	13,590	262,296
29	28,152	56,303	22,521	56,303	28,152	26,744	14,076	25,337	14,076	271,664
30	29,122	58,245	23,298	58,245	29,122	27,666	14,561	26,210	14,561	281,031
31	30,093	60,186	24,075	60,186	30,093	28,589	15,047	27,084	15,047	290,399
32	31,064	62,128	24,851	62,128	31,064	29,511	15,532	27,958	15,532	299,767
33	32,035	64,069	25,628	64,069	32,035	30,433	16,017	28,831	16,017	309,134
34	33,005	66,011	26,404	66,011	33,005	31,355	16,503	29,705	16,503	318,502
35	33,976	67,952	27,181	67,952	33,976	32,277	16,988	30,579	16,988	327,870
36	34,947	69,894	27,958	69,894	34,947	33,200	17,473	31,452	17,473	337,238
37	35,918	71,835	28,734	71,835	35,918	34,122	17,959	32,326	17,959	346,605
38	36,888	73,777	29,511	73,777	36,888	35,044	18,444	33,200	18,444	355,973
39	37,859	75,718	30,287	75,718	37,859	35,966	18,930	34,073	18,930	365,341
40	38,830	77,660	31,064	77,660	38,830	36,888	19,415	34,947	19,415	374,708

Table A-15. Nitrogen Load Reductions from Cropland BMP Implementation in the Targeted Areas

Total Annual Nitrogen Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	2,865	5,731	4,585	7,164	5,731	5,444	4,012	5,158	2,865	43,554
2	5,731	11,462	9,169	14,327	11,462	10,889	8,023	10,315	5,731	87,108
3	8,596	17,192	13,754	21,491	17,192	16,333	12,035	15,473	8,596	130,663
4	11,462	22,923	18,339	28,654	22,923	21,777	16,046	20,631	11,462	174,217
5	14,327	28,654	22,923	35,818	28,654	27,221	20,058	25,789	14,327	217,771
6	17,192	34,385	27,508	42,981	34,385	32,666	24,069	30,946	17,192	261,325
7	20,058	40,116	32,093	50,145	40,116	38,110	28,081	36,104	20,058	304,880
8	22,923	45,847	36,677	57,308	45,847	43,554	32,093	41,262	22,923	348,434
9	25,789	51,577	41,262	64,472	51,577	48,999	36,104	46,420	25,789	391,988
10	28,654	57,308	45,847	71,635	57,308	54,443	40,116	51,577	28,654	435,542
11	31,520	63,039	50,431	78,799	63,039	59,887	44,127	56,735	31,520	479,097
12	34,385	68,770	55,016	85,962	68,770	65,331	48,139	61,893	34,385	522,651
13	37,250	74,501	59,601	93,126	74,501	70,776	52,150	67,051	37,250	566,205
14	40,116	80,231	64,185	100,289	80,231	76,220	56,162	72,208	40,116	609,759
15	42,981	85,962	68,770	107,453	85,962	81,664	60,174	77,366	42,981	653,313
16	45,847	91,693	73,354	114,616	91,693	87,108	64,185	82,524	45,847	696,868
17	48,712	97,424	77,939	121,780	97,424	92,553	68,197	87,682	48,712	740,422
18	51,577	103,155	82,524	128,943	103,155	97,997	72,208	92,839	51,577	783,976
19	54,443	108,886	87,108	136,107	108,886	103,441	76,220	97,997	54,443	827,530
20	57,308	114,616	91,693	143,270	114,616	108,886	80,231	103,155	57,308	871,085
21	60,174	120,347	96,278	150,434	120,347	114,330	84,243	108,312	60,174	914,639
22	63,039	126,078	100,862	157,598	126,078	119,774	88,255	113,470	63,039	958,193
23	65,904	131,809	105,447	164,761	131,809	125,218	92,266	118,628	65,904	1,001,747
24	68,770	137,540	110,032	171,925	137,540	130,663	96,278	123,786	68,770	1,045,302
25	71,635	143,270	114,616	179,088	143,270	136,107	100,289	128,943	71,635	1,088,856
26	74,501	149,001	119,201	186,252	149,001	141,551	104,301	134,101	74,501	1,132,410
27	77,366	154,732	123,786	193,415	154,732	146,996	108,312	139,259	77,366	1,175,964
28	80,231	160,463	128,370	200,579	160,463	152,440	112,324	144,417	80,231	1,219,518
29	83,097	166,194	132,955	207,742	166,194	157,884	116,336	149,574	83,097	1,263,073
30	85,962	171,925	137,540	214,906	171,925	163,328	120,347	154,732	85,962	1,306,627
31	88,828	177,655	142,124	222,069	177,655	168,773	124,359	159,890	88,828	1,350,181
32	91,693	183,386	146,709	229,233	183,386	174,217	128,370	165,048	91,693	1,393,735
33	94,559	189,117	151,294	236,396	189,117	179,661	132,382	170,205	94,559	1,437,290
34	97,424	194,848	155,878	243,560	194,848	185,105	136,394	175,363	97,424	1,480,844
35	100,289	200,579	160,463	250,723	200,579	190,550	140,405	180,521	100,289	1,524,398
36	103,155	206,310	165,048	257,887	206,310	195,994	144,417	185,679	103,155	1,567,952
37	106,020	212,040	169,632	265,050	212,040	201,438	148,428	190,836	106,020	1,611,507
38	108,886	217,771	174,217	272,214	217,771	206,883	152,440	195,994	108,886	1,655,061
39	111,751	223,502	178,802	279,377	223,502	212,327	156,451	201,152	111,751	1,698,615
40	114,616	229,233	183,386	286,541	229,233	217,771	160,463	206,310	114,616	1,742,169

b. Nutrient Load Reductions from Streambank BMP Implementation

Streambanks will be targeted in the Tuttle Creek Watershed to reduce sediment loss. Streambank stabilization BMPs will not only reduce sediment loss/soil erosion but will also reduce nutrient loading.

This amendment will not change the adoption rate or load reductions made due to streambank stabilization projects. However, it does broaden the targeted area for implementation as demonstrated in **Figure A-5**. Rather than focus on just a few streams as in the 2018 version of this plan, any streambank in the targeted areas shown and in need of restoration are now eligible for adoption.

Stabilization projects will be approved by the SLT each year. There are several methods to stabilize streambanks, and one or more of the BMPs below may be utilized:

- riparian buffers
- field borders
- bottomland timber in wetlands
- streambank restoration, etc.

Table A-16. Streambank BMPs to Reduce Sediment and Phosphorus Loading

BMPs to Reduce Sediment and Nutrient Loading in the Tuttle Creek Watershed		
Protection Measure	Best Management Practices (BMPs)	Annual Adoption Rate
Prevent Streambank Erosion	Streambank Stabilization	4,750 feet per year

The implementation of 4,750 feet of streambank stabilization projects annually will result in a cumulative phosphorus load reduction of 3,243,320 pounds (**Table A-17**) at the end of this 40-year WRAPS plan.

Nitrogen loads will be reduced as well but quantitative figures to calculate the reductions from streambank practices are unknown at this time.

Table A-17. Cumulative Phosphorus Load Reductions from Streambank BMPs

Total Annual Phosphorus Reduction, Streambank Stabilization (pounds)			
Year	Streambank Stabilization (feet)	Phosphorus Load Reductions (pounds)	Cumulative Phosphorus Load Reductions (pounds)
1	4,750	81,083	81,083
2	4,750	81,083	162,166
3	4,750	81,083	243,249
4	4,750	81,083	324,332
5	4,750	81,083	405,415
6	4,750	81,083	486,498
7	4,750	81,083	567,581
8	4,750	81,083	648,664
9	4,750	81,083	729,747
10	4,750	81,083	810,830
11	4,750	81,083	891,913
12	4,750	81,083	972,996
13	4,750	81,083	1,054,079
14	4,750	81,083	1,135,162
15	4,750	81,083	1,216,245
16	4,750	81,083	1,297,328
17	4,750	81,083	1,378,411
18	4,750	81,083	1,459,494
19	4,750	81,083	1,540,577
20	4,750	81,083	1,621,660
21	4,750	81,083	1,702,743
22	4,750	81,083	1,783,826
23	4,750	81,083	1,864,909
24	4,750	81,083	1,945,992
25	4,750	81,083	2,027,075
26	4,750	81,083	2,108,158
27	4,750	81,083	2,189,241
28	4,750	81,083	2,270,324
29	4,750	81,083	2,351,407
30	4,750	81,083	2,432,490
31	4,750	81,083	2,513,573
32	4,750	81,083	2,594,656
33	4,750	81,083	2,675,739
34	4,750	81,083	2,756,822
35	4,750	81,083	2,837,905
36	4,750	81,083	2,918,988
37	4,750	81,083	3,000,071
38	4,750	81,083	3,081,154
39	4,750	81,083	3,162,237
40	4,750	81,083	3,243,320

c. Nutrient Load Reductions from Livestock BMP Implementation

The targeted areas shown in **Figure A-5** will also be targeted with livestock BMPs to reduce phosphorus loading. At the conclusion of this 40-year WRAPS plan, it is estimated that 66,041 pounds of phosphorus will be reduced due to livestock BMP implementation.

Although not a goal of this plan, the livestock BMPs will subsequently reduce nitrogen loading as well. Livestock BMP implementation will result in a nitrogen load reduction of 124,424 pounds at the conclusion of this 40-year WRAPS plan.

The BMPs listed below will be used in the watershed for phosphorus load reductions. These livestock BMPs will subsequently have a positive impact on nitrogen and *E. coli* loading as well.

- install alternative watering sites away from streams.
- relocate small feedlots away from streams,
- relocate pasture feeding sites away from streams, and
- establish vegetative filter strips along creeks.

Table A-18. Livestock BMPs to Reduce Nutrient Loading

Livestock BMPs to Reduce Nutrient Loading		
Protection Measures for:	Best Management Practices (BMPs)	Acres/Projects Needing BMPs
Prevent Nutrient Loading from Livestock Areas	Install alternative watering sites away from streams	1 site per year in cropland that is being used for winter grazing of crop stubble
		1 site every other year in cool season pastures
		2 sites per year in native grass pastures
	Relocate small feedlots away from streams	1 site every other year
	Relocate pasture feeding sites away from streams	1 site every other year in cool season pastures
		2 sites per year in native grass pastures
Establish vegetative filter strips along creeks	1 site per year	

Table A-19. Adoption Rates for Livestock BMP Implementation in the Tuttle Creek Watershed

Annual BMP Adoption Rates to Address Nutrient Loading (# of projects), Livestock BMPs								
Year	Alternative Watering Site			Reloacte Small Feedlots	Relocate Pasture Feeding Sites		Vegetative Filter Strip	Total Adoption
	Native	Cool Season	Cropland		Native	Cool Season		
1	2	0	1	0	2	0	1	6
2	2	1	1	1	2	1	1	9
3	2	0	1	0	2	0	1	6
4	2	1	1	1	2	1	1	9
5	2	0	1	0	2	0	1	6
6	2	1	1	1	2	1	1	9
7	2	0	1	0	2	0	1	6
8	2	1	1	1	2	1	1	9
9	2	0	1	0	2	0	1	6
10	2	1	1	1	2	1	1	9
11	2	0	1	0	2	0	1	6
12	2	1	1	1	2	1	1	9
13	2	0	1	0	2	0	1	6
14	2	1	1	1	2	1	1	9
15	2	0	1	0	2	0	1	6
16	2	1	1	1	2	1	1	9
17	2	0	1	0	2	0	1	6
18	2	1	1	1	2	1	1	9
19	2	0	1	0	2	0	1	6
20	2	1	1	1	2	1	1	9
21	2	0	1	0	2	0	1	6
22	2	1	1	1	2	1	1	9
23	2	0	1	0	2	0	1	6
24	2	1	1	1	2	1	1	9
25	2	0	1	0	2	0	1	6
26	2	1	1	1	2	1	1	9
27	2	0	1	0	2	0	1	6
28	2	1	1	1	2	1	1	9
29	2	0	1	0	2	0	1	6
30	2	1	1	1	2	1	1	9
31	2	0	1	0	2	0	1	6
32	2	1	1	1	2	1	1	9
33	2	0	1	0	2	0	1	6
34	2	1	1	1	2	1	1	9
35	2	0	1	0	2	0	1	6
36	2	1	1	1	2	1	1	9
37	2	0	1	0	2	0	1	6
38	2	1	1	1	2	1	1	9
39	2	0	1	0	2	0	1	6
40	2	1	1	1	2	1	1	9

Table A-20. Cumulative Phosphorus Load Reductions from Livestock BMPs

Total Annual Phosphorus Reduction, Livestock BMPs (pounds)								
Year	Alternative Watering Site			Reloacte Small Feedlots	Relocate Pasture Feeding Sites		Vegetative Filter Strip	Cumulative Load Reduction
	Native	Cool Season	Cropland		Native	Cool Season		
1	153	0	25	0	153	0	638	969
2	153	204	25	957	153	204	638	3,303
3	153	0	25	0	153	0	638	4,272
4	153	204	25	957	153	204	638	6,606
5	153	0	25	0	153	0	638	7,575
6	153	204	25	957	153	204	638	9,909
7	153	0	25	0	153	0	638	10,878
8	153	204	25	957	153	204	638	13,212
9	153	0	25	0	153	0	638	14,181
10	153	204	25	957	153	204	638	16,515
11	153	0	25	0	153	0	638	17,484
12	153	204	25	957	153	204	638	19,818
13	153	0	25	0	153	0	638	20,787
14	153	204	25	957	153	204	638	23,121
15	153	0	25	0	153	0	638	24,090
16	153	204	25	957	153	204	638	26,424
17	153	0	25	0	153	0	638	27,393
18	153	204	25	957	153	204	638	29,727
19	153	0	25	0	153	0	638	30,696
20	153	204	25	957	153	204	638	33,030
21	153	0	25	0	153	0	638	33,999
22	153	204	25	957	153	204	638	36,333
23	153	0	25	0	153	0	638	37,302
24	153	204	25	957	153	204	638	39,636
25	153	0	25	0	153	0	638	40,605
26	153	204	25	957	153	204	638	42,939
27	153	0	25	0	153	0	638	43,908
28	153	204	25	957	153	204	638	46,242
29	153	0	25	0	153	0	638	47,211
30	153	204	25	957	153	204	638	49,545
31	153	0	25	0	153	0	638	50,514
32	153	204	25	957	153	204	638	52,848
33	153	0	25	0	153	0	638	53,817
34	153	204	25	957	153	204	638	56,151
35	153	0	25	0	153	0	638	57,120
36	153	204	25	957	153	204	638	59,454
37	153	0	25	0	153	0	638	60,423
38	153	204	25	957	153	204	638	62,757
39	153	0	25	0	153	0	638	63,726
40	153	204	25	957	153	204	638	66,060

Table A-21. Cumulative Nitrogen Load Reductions from Livestock BMPs

Total Annual Nitrogen Reduction, Livestock BMPs (pounds)								
Year	Alternative Watering Site			Reloacte Small Feedlots	Relocate Pasture Feeding Sites		Vegetative Filter Strip	Cumulative Load Reduction
	Native	Cool Season	Cropland		Native	Cool Season		
1	288	0	47	0	288	0	1,202	1,825
2	288	384	47	1,803	288	384	1,202	6,221
3	288	0	47	0	288	0	1,202	8,046
4	288	384	47	1,803	288	384	1,202	12,442
5	288	0	47	0	288	0	1,202	14,268
6	288	384	47	1,803	288	384	1,202	18,664
7	288	0	47	0	288	0	1,202	20,489
8	288	384	47	1,803	288	384	1,202	24,885
9	288	0	47	0	288	0	1,202	26,710
10	288	384	47	1,803	288	384	1,202	31,106
11	288	0	47	0	288	0	1,202	32,931
12	288	384	47	1,803	288	384	1,202	37,327
13	288	0	47	0	288	0	1,202	39,152
14	288	384	47	1,803	288	384	1,202	43,548
15	288	0	47	0	288	0	1,202	45,374
16	288	384	47	1,803	288	384	1,202	49,770
17	288	0	47	0	288	0	1,202	51,595
18	288	384	47	1,803	288	384	1,202	55,991
19	288	0	47	0	288	0	1,202	57,816
20	288	384	47	1,803	288	384	1,202	62,212
21	288	0	47	0	288	0	1,202	64,037
22	288	384	47	1,803	288	384	1,202	68,433
23	288	0	47	0	288	0	1,202	70,258
24	288	384	47	1,803	288	384	1,202	74,654
25	288	0	47	0	288	0	1,202	76,480
26	288	384	47	1,803	288	384	1,202	80,876
27	288	0	47	0	288	0	1,202	82,701
28	288	384	47	1,803	288	384	1,202	87,097
29	288	0	47	0	288	0	1,202	88,922
30	288	384	47	1,803	288	384	1,202	93,318
31	288	0	47	0	288	0	1,202	95,143
32	288	384	47	1,803	288	384	1,202	99,539
33	288	0	47	0	288	0	1,202	101,364
34	288	384	47	1,803	288	384	1,202	105,760
35	288	0	47	0	288	0	1,202	107,586
36	288	384	47	1,803	288	384	1,202	111,982
37	288	0	47	0	288	0	1,202	113,807
38	288	384	47	1,803	288	384	1,202	118,203
39	288	0	47	0	288	0	1,202	120,028
40	288	384	47	1,803	288	384	1,202	124,424

d. Total Nutrient Reductions in the Tuttle Creek Watershed

The implementation of livestock BMPs in addition to the sediment BMPs on cropland and streambanks will result in 3,684,088 pounds of phosphorus reduced. The TMDL goal is 1.72 million pounds, with a current annual phosphorus load of 19.14 million pounds. At the end of this 40-year WRAPS plan, the Tuttle Creek Watershed will still be over the stated goal by 13.74 million pounds.

As previously mentioned, achieving nitrogen load reductions is not a priority for this WRAPS plan. However, sediment and nutrient BMPs implemented on cropland, streambank, and livestock areas will directly, and positively, impact nitrogen pollutant loading. While streambank load reductions for nitrogen have no quantitative value in this WRAPS plan, it is known that where sediment erosion and phosphorus loads are reduced, nitrogen is as well. Therefore, it is estimated that *over* 1,866,593 pounds of nitrogen will be reduced by the end of this 40-year WRAPS plan.

Table A-22. Meeting the Phosphorus TMDL in the Tuttle Creek Watershed

Achieving the Tuttle Creek Watershed Phosphorus TMDL		
Priority Area	Total Erosion Reduction	% of Phosphorus TMDL
Cropland	374,708	2%
Streambank	3,243,320	19%
Livestock	66,060	0%
Total	3,684,088	21%

Table A-23. Nitrogen Load Reductions from BMP Implementation in the Tuttle Creek Watershed

Nitrogen Load Reductions in the Tuttle Creek Watershed	
Priority Area	Total Erosion Reduction
Cropland	1,742,169
Streambank	unknown
Livestock	124,424
Total	1,866,593

Table A-24. Total Phosphorus Load Reductions in the Tuttle Creek Watershed

Phosphorus Load Reductions from WRAPS Plan BMP Implementation					
Year	Cropland (tons/year)	Streambank (pounds/year)	Livestock (pounds/year)	Total Reduction (pounds/year)	% of Phosphorus Goal
1	9,368	81,083	969	91,420	1%
2	18,735	162,166	3,303	184,204	1%
3	28,103	243,249	4,272	275,624	2%
4	37,471	324,332	6,606	368,409	2%
5	46,839	405,415	7,575	459,829	3%
6	56,206	486,498	9,909	552,613	3%
7	65,574	567,581	10,878	644,033	4%
8	74,942	648,664	13,212	736,818	4%
9	84,309	729,747	14,181	828,237	5%
10	93,677	810,830	16,515	921,022	5%
11	103,045	891,913	17,484	1,012,442	6%
12	112,413	972,996	19,818	1,105,227	6%
13	121,780	1,054,079	20,787	1,196,646	7%
14	131,148	1,135,162	23,121	1,289,431	7%
15	140,516	1,216,245	24,090	1,380,851	8%
16	149,883	1,297,328	26,424	1,473,635	8%
17	159,251	1,378,411	27,393	1,565,055	9%
18	168,619	1,459,494	29,727	1,657,840	10%
19	177,987	1,540,577	30,696	1,749,260	10%
20	187,354	1,621,660	33,030	1,842,044	11%
21	196,722	1,702,743	33,999	1,933,464	11%
22	206,090	1,783,826	36,333	2,026,249	12%
23	215,457	1,864,909	37,302	2,117,668	12%
24	224,825	1,945,992	39,636	2,210,453	13%
25	234,193	2,027,075	40,605	2,301,873	13%
26	243,561	2,108,158	42,939	2,394,658	14%
27	252,928	2,189,241	43,908	2,486,077	14%
28	262,296	2,270,324	46,242	2,578,862	15%
29	271,664	2,351,407	47,211	2,670,282	15%
30	281,031	2,432,490	49,545	2,763,066	16%
31	290,399	2,513,573	50,514	2,854,486	16%
32	299,767	2,594,656	52,848	2,947,271	17%
33	309,134	2,675,739	53,817	3,038,690	17%
34	318,502	2,756,822	56,151	3,131,475	18%
35	327,870	2,837,905	57,120	3,222,895	19%
36	337,238	2,918,988	59,454	3,315,680	19%
37	346,605	3,000,071	60,423	3,407,099	20%
38	355,973	3,081,154	62,757	3,499,884	20%
39	365,341	3,162,237	63,726	3,591,304	21%
40	374,708	3,243,320	66,060	3,684,088	21%
Phosphorus Load Reduction Goal: 17,420,000 pounds					

Table A-25. Estimated Nitrogen Load Reductions in the Tuttle Creek Watershed

Nitrogen Load Reductions from WRAPS Plan BMP Implementation				
Year	Cropland (tons/year)	Streambank (pounds/year)	Livestock (pounds/year)	Total Reduction (pounds/year)
1	43,554	unknown	1,825	45,379
2	87,108	unknown	6,221	93,330
3	130,663	unknown	8,046	138,709
4	174,217	unknown	12,442	186,659
5	217,771	unknown	14,268	232,039
6	261,325	unknown	18,664	279,989
7	304,880	unknown	20,489	325,368
8	348,434	unknown	24,885	373,319
9	391,988	unknown	26,710	418,698
10	435,542	unknown	31,106	466,648
11	479,097	unknown	32,931	512,028
12	522,651	unknown	37,327	559,978
13	566,205	unknown	39,152	605,357
14	609,759	unknown	43,548	653,308
15	653,313	unknown	45,374	698,687
16	696,868	unknown	49,770	746,637
17	740,422	unknown	51,595	792,017
18	783,976	unknown	55,991	839,967
19	827,530	unknown	57,816	885,346
20	871,085	unknown	62,212	933,297
21	914,639	unknown	64,037	978,676
22	958,193	unknown	68,433	1,026,626
23	1,001,747	unknown	70,258	1,072,006
24	1,045,302	unknown	74,654	1,119,956
25	1,088,856	unknown	76,480	1,165,335
26	1,132,410	unknown	80,876	1,213,286
27	1,175,964	unknown	82,701	1,258,665
28	1,219,518	unknown	87,097	1,306,615
29	1,263,073	unknown	88,922	1,351,995
30	1,306,627	unknown	93,318	1,399,945
31	1,350,181	unknown	95,143	1,445,324
32	1,393,735	unknown	99,539	1,493,275
33	1,437,290	unknown	101,364	1,538,654
34	1,480,844	unknown	105,760	1,586,604
35	1,524,398	unknown	107,586	1,631,984
36	1,567,952	unknown	111,982	1,679,934
37	1,611,507	unknown	113,807	1,725,313
38	1,655,061	unknown	118,203	1,773,264
39	1,698,615	unknown	120,028	1,818,643
40	1,742,169	unknown	124,424	1,866,593
There is no Nitrogen "Goal" but it will be positively impacted.				

3. Herbicide (Atrazine and Alachlor) Reductions in the Tuttle Creek Watershed

The Tuttle Creek Watershed has a “high” priority TMDL for the impairments of **alachlor** and **atrazine** in many streams as well as in Tuttle Creek Lake. Atrazine is more prevalent throughout the watershed, affecting more streams than alachlor. However, every stream in which alachlor has a “high” priority TMDL, atrazine does as well. Therefore, for the purpose of this WRAPS plan, they will be addressed together.

Although there are no current BMPs specific to alachlor, the BMPs used for atrazine reduction also will result in alachlor reductions. At this time, there are no definitive load reduction numbers or data about alachlor in the Tuttle Creek Watershed. Therefore, all tables relating to BMP implementation for herbicide reduction factor in only atrazine adoption rates, reduction and goals.

a. Targeted Areas for Herbicide BMP Implementation

This WRAPS plan will target the areas shown in **Figure A-6** for BMP implementation that will reduce herbicide runoff from cropland areas.

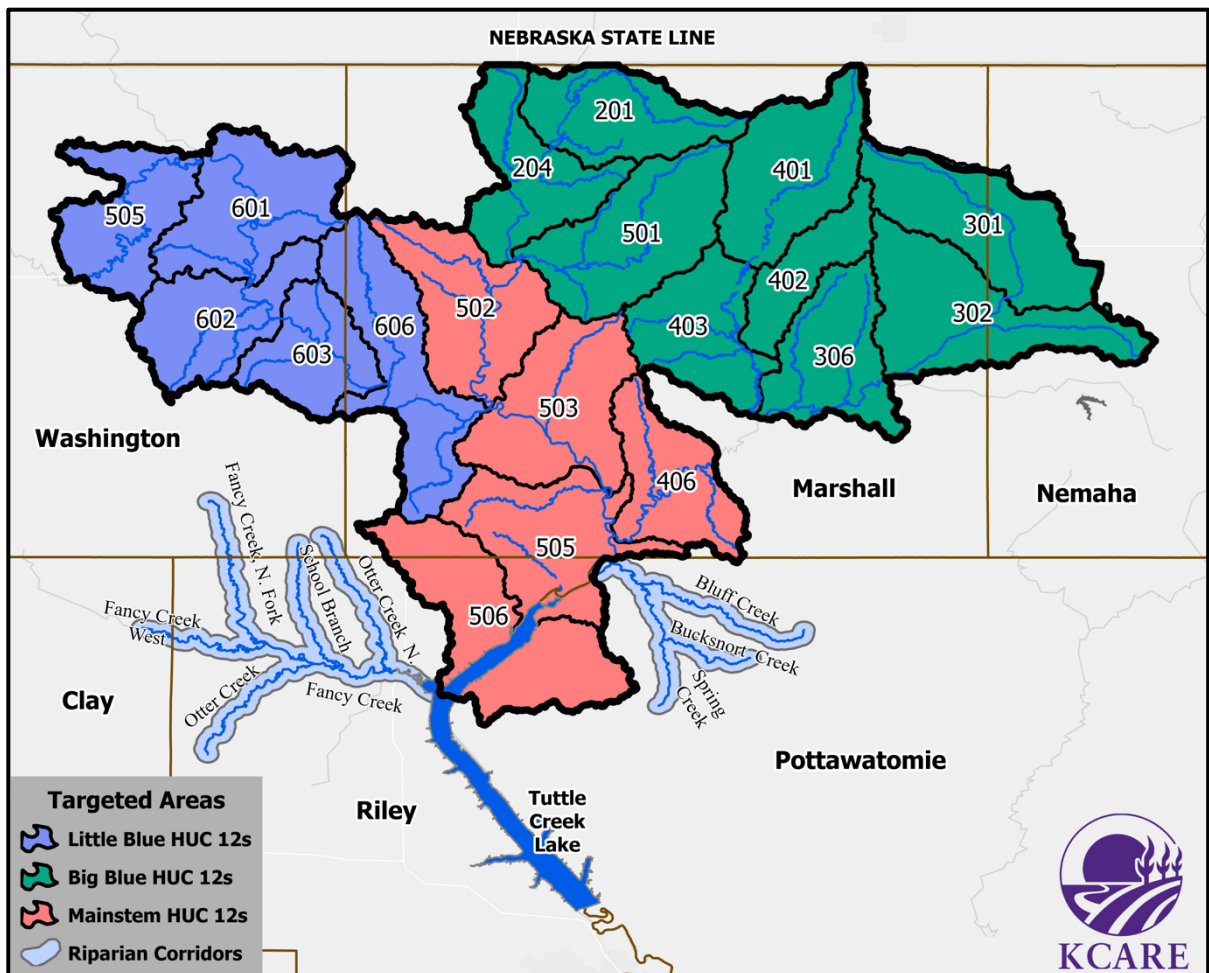


Figure A-6. Targeted Areas for Cropland BMPs to Address Sediment and Herbicides

The following BMPs will be implemented to reduce herbicide runoff from crop fields:

- use alternative herbicide,
- use early application,
- use reduced soil applied rate, and
- use split application, and
- plant vegetative buffers.

b. Herbicide BMP adoption rates and load reductions

The implementation of herbicide BMPs on 10,272 cropland acres per year, within the Tuttle Creek Watershed’s targeted areas (**Figure A-6**), will result in exceeding the atrazine TMDL goal of 55,845 pounds per year. At the end of this 40-year WRAPS plan, 59,000 pounds of atrazine will be prevented from entering nearby water segments, which equates to 106% of the TMDL goal (**Table A-27**). Preventing atrazine runoff into streams also will prevent the herbicide from flowing into Tuttle Creek Lake.

Table A-26. Adoption Rates for Herbicide BMP Implementation in the Tuttle Creek Watershed

Annual Atrazine BMP Adoption (treated acres), Cropland BMPs						
Year	Use Alternative Herbicides	Early Application	Reduced Soil Applied Rate	Split Application	Vegetative Buffers	Total Adoption
1	1,541	2,568	1,541	2,568	2,054	10,272
2	1,541	2,568	1,541	2,568	2,054	10,272
3	1,541	2,568	1,541	2,568	2,054	10,272
4	1,541	2,568	1,541	2,568	2,054	10,272
5	1,541	2,568	1,541	2,568	2,054	10,272
6	1,541	2,568	1,541	2,568	2,054	10,272
7	1,541	2,568	1,541	2,568	2,054	10,272
8	1,541	2,568	1,541	2,568	2,054	10,272
9	1,541	2,568	1,541	2,568	2,054	10,272
10	1,541	2,568	1,541	2,568	2,054	10,272
11	1,541	2,568	1,541	2,568	2,054	10,272
12	1,541	2,568	1,541	2,568	2,054	10,272
13	1,541	2,568	1,541	2,568	2,054	10,272
14	1,541	2,568	1,541	2,568	2,054	10,272
15	1,541	2,568	1,541	2,568	2,054	10,272
16	1,541	2,568	1,541	2,568	2,054	10,272
17	1,541	2,568	1,541	2,568	2,054	10,272
18	1,541	2,568	1,541	2,568	2,054	10,272
19	1,541	2,568	1,541	2,568	2,054	10,272
20	1,541	2,568	1,541	2,568	2,054	10,272
21	1,541	2,568	1,541	2,568	2,054	10,272
22	1,541	2,568	1,541	2,568	2,054	10,272
23	1,541	2,568	1,541	2,568	2,054	10,272
24	1,541	2,568	1,541	2,568	2,054	10,272
25	1,541	2,568	1,541	2,568	2,054	10,272
26	1,541	2,568	1,541	2,568	2,054	10,272
27	1,541	2,568	1,541	2,568	2,054	10,272
28	1,541	2,568	1,541	2,568	2,054	10,272
29	1,541	2,568	1,541	2,568	2,054	10,272
30	1,541	2,568	1,541	2,568	2,054	10,272
31	1,541	2,568	1,541	2,568	2,054	10,272
32	1,541	2,568	1,541	2,568	2,054	10,272
33	1,541	2,568	1,541	2,568	2,054	10,272
34	1,541	2,568	1,541	2,568	2,054	10,272
35	1,541	2,568	1,541	2,568	2,054	10,272
36	1,541	2,568	1,541	2,568	2,054	10,272
37	1,541	2,568	1,541	2,568	2,054	10,272
38	1,541	2,568	1,541	2,568	2,054	10,272
39	1,541	2,568	1,541	2,568	2,054	10,272
40	1,541	2,568	1,541	2,568	2,054	10,272

Table A-27. Cumulative Atrazine Load Reductions from Cropland BMPs

Total Annual Atrazine Reductions, Cropland BMPs (pounds a.i.)							
Year	Use Alternative Herbicides	Early Application	Reduced Soil Applied Rate	Split Application	Vegetative Buffers	Cumulative Load Reduction	% of Atrazine Goal
1	474	395	156	197	253	1,475	3%
2	948	790	312	394	506	2,950	5%
3	1,422	1,185	468	591	759	4,425	8%
4	1,896	1,580	624	788	1,012	5,900	11%
5	2,370	1,975	780	985	1,265	7,375	13%
6	2,844	2,370	936	1,182	1,518	8,850	16%
7	3,318	2,765	1,092	1,379	1,771	10,325	18%
8	3,792	3,160	1,248	1,576	2,024	11,800	21%
9	4,266	3,555	1,404	1,773	2,277	13,275	24%
10	4,740	3,950	1,560	1,970	2,530	14,750	26%
11	5,214	4,345	1,716	2,167	2,783	16,225	29%
12	5,688	4,740	1,872	2,364	3,036	17,700	32%
13	6,162	5,135	2,028	2,561	3,289	19,175	34%
14	6,636	5,530	2,184	2,758	3,542	20,650	37%
15	7,110	5,925	2,340	2,955	3,795	22,125	40%
16	7,584	6,320	2,496	3,152	4,048	23,600	42%
17	8,058	6,715	2,652	3,349	4,301	25,075	45%
18	8,532	7,110	2,808	3,546	4,554	26,550	48%
19	9,006	7,505	2,964	3,743	4,807	28,025	50%
20	9,480	7,900	3,120	3,940	5,060	29,500	53%
21	9,954	8,295	3,276	4,137	5,313	30,975	55%
22	10,428	8,690	3,432	4,334	5,566	32,450	58%
23	10,902	9,085	3,588	4,531	5,819	33,925	61%
24	11,376	9,480	3,744	4,728	6,072	35,400	63%
25	11,850	9,875	3,900	4,925	6,325	36,875	66%
26	12,324	10,270	4,056	5,122	6,578	38,350	69%
27	12,798	10,665	4,212	5,319	6,831	39,825	71%
28	13,272	11,060	4,368	5,516	7,084	41,300	74%
29	13,746	11,455	4,524	5,713	7,337	42,775	77%
30	14,220	11,850	4,680	5,910	7,590	44,250	79%
31	14,694	12,245	4,836	6,107	7,843	45,725	82%
32	15,168	12,640	4,992	6,304	8,096	47,200	85%
33	15,642	13,035	5,148	6,501	8,349	48,675	87%
34	16,116	13,430	5,304	6,698	8,602	50,150	90%
35	16,590	13,825	5,460	6,895	8,855	51,625	92%
36	17,064	14,220	5,616	7,092	9,108	53,100	95%
37	17,538	14,615	5,772	7,289	9,361	54,575	98%
38	18,012	15,010	5,928	7,486	9,614	56,050	100%
39	18,486	15,405	6,084	7,683	9,867	57,525	103%
40	18,960	15,800	6,240	7,880	10,120	59,000	106%
Sediment Loss Reduction Goal: 55,845 pounds ai.i.							

Again, since there are no quantitative current load or TMDL required load reduction numbers available for alachlor, there is no table like the ones above specific to alachlor. Therefore, it is an assumption that each of the BMPs listed will result in similar reductions for alachlor.

4. *E. coli* bacteria Reductions in the Tuttle Creek Watershed

Bacteria are often found in water. *E. coli* bacteria is ranked as a “high” priority TMDLs in 61 stream segments of the Tuttle Creek Watershed with an additional six (6) streams ranked as “medium” priority. Tuttle Creek Watershed WRAPS plan will target livestock areas for *E. coli* bacteria reductions.

a. Targeted Areas for Livestock BMP Implementation to Reduce *E. coli* Bacteria

Livestock BMPs will be implemented throughout the targeted areas (Figure A-7) in the Tuttle Creek Watershed to reduce *E. coli* contamination.

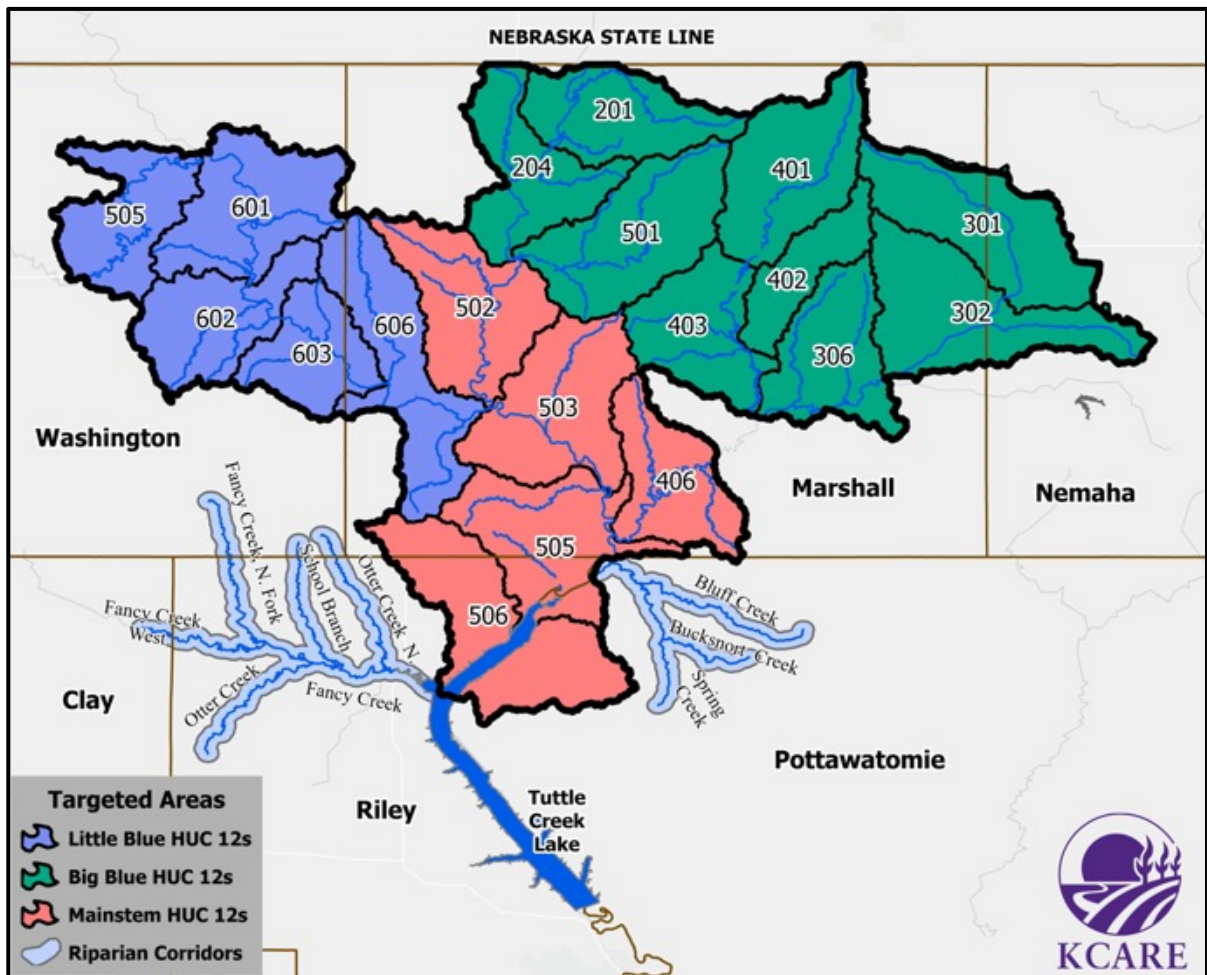


Figure A-7. Targeted Areas for Livestock BMPs to Address *E. coli*

b. Livestock BMP Implementation to Reduce *E. coli* Bacteria Loading

It is not possible to estimate the current pollutant load for *E. coli* bacteria in the watershed. This is due to several factors: environmental factors affect the viability of *E. coli* since it is a living organism; the viability of *E. coli* is affected by variations in initial bacteria loading, ambient temperature, amount of sunlight or UV rays, and a decrease in survivability over time.

In addition, *E. coli* concentrations are difficult to model, and the scope of this WRAPS project does not include modeling for *E. coli*. Instead, the SLT has laid out specific BMPs that are related to livestock management practices to reduce *E. coli* contamination. The phosphorus BMPs implemented in livestock areas will also serve to reduce *E. coli* loading in the watershed.

The BMPs listed below will be implemented in the targeted areas of the watershed to reduce nutrients (phosphorus) and will subsequently reduce *E. coli* bacteria loading. These livestock BMPs will have a positive impact on and nitrogen loading as well.

- install alternative watering sites away from streams.
- relocate small feedlots away from streams,
- relocate pasture feeding sites away from streams, and
- establish vegetative filter strips along creeks.

Table A-28. Livestock BMPs to Reduce *E. coli* Bacteria and Nutrient Loading

Livestock BMPs to Reduce Bacteria Loading		
Protection Measures for:	Best Management Practices (BMPs)	Acres/Projects Needing BMPs
Prevent <i>E. coli</i> Bacteria Loading from Livestock Areas	Install alternative watering sites away from streams	1 site per year in cropland that is being used for winter grazing of crop stubble
		1 site every other year in cool season pastures
		2 sites per year in native grass pastures
	Relocate small feedlots away from streams	1 site every other year
	Relocate pasture feeding sites away from streams	1 site every other year in cool season pastures
		2 sites per year in native grass pastures
Establish vegetative filter strips along creeks	1 site per year	

Table A-29. Adoption Rates for Livestock BMP Implementation in the Tuttle Creek Watershed

Annual BMP Adoption Rates to Address <i>E. coli</i> and Nutrient Loading (# of projects), Livestock BMPs								
Year	Alternative Watering Site			Relocate Small Feedlots	Relocate Pasture Feeding Sites		Vegetative Filter Strip	Total Adoption
	Native	Cool Season	Cropland		Native	Cool Season		
1	2	0	1	0	2	0	1	6
2	2	1	1	1	2	1	1	9
3	2	0	1	0	2	0	1	6
4	2	1	1	1	2	1	1	9
5	2	0	1	0	2	0	1	6
6	2	1	1	1	2	1	1	9
7	2	0	1	0	2	0	1	6
8	2	1	1	1	2	1	1	9
9	2	0	1	0	2	0	1	6
10	2	1	1	1	2	1	1	9
11	2	0	1	0	2	0	1	6
12	2	1	1	1	2	1	1	9
13	2	0	1	0	2	0	1	6
14	2	1	1	1	2	1	1	9
15	2	0	1	0	2	0	1	6
16	2	1	1	1	2	1	1	9
17	2	0	1	0	2	0	1	6
18	2	1	1	1	2	1	1	9
19	2	0	1	0	2	0	1	6
20	2	1	1	1	2	1	1	9
21	2	0	1	0	2	0	1	6
22	2	1	1	1	2	1	1	9
23	2	0	1	0	2	0	1	6
24	2	1	1	1	2	1	1	9
25	2	0	1	0	2	0	1	6
26	2	1	1	1	2	1	1	9
27	2	0	1	0	2	0	1	6
28	2	1	1	1	2	1	1	9
29	2	0	1	0	2	0	1	6
30	2	1	1	1	2	1	1	9
31	2	0	1	0	2	0	1	6
32	2	1	1	1	2	1	1	9
33	2	0	1	0	2	0	1	6
34	2	1	1	1	2	1	1	9
35	2	0	1	0	2	0	1	6
36	2	1	1	1	2	1	1	9
37	2	0	1	0	2	0	1	6
38	2	1	1	1	2	1	1	9
39	2	0	1	0	2	0	1	6
40	2	1	1	1	2	1	1	9

E. coli bacteria load reductions are not quantitative; however, it is assumed that reductions are made given that livestock are removed from water sources.

C. Amended Information and Education

- Listed below are the amended Information and Education (I&E) activities and events along with their costs and possible sponsoring agencies. *If all listed I&E events and activities take place, the total cost would be \$32,000.*

Table A-30. I&E: Cropland BMP Implementation for Sediment and Nutrients

Cropland BMP Implementation					
BMP	Target Audience	Information/Education Activity/Event	Time Frame	Estimates Costs	Sponsor/Responsible Agency
Buffer Strips and Permanent Vegetation	Landowners and Farmers	Demonstration Project	Annual - Spring	\$5,000	Kansas Rural Center, Tuttle Creek WRAPS
		Tour/Field Day to Highlight Grassed Buffer	Annual - Summer	\$500	Kansas Rural Center, Tuttle Creek WRAPS
		Buffer/Riparian Area Tour/Field Day highlighting forested buffers	Annual - Summer	\$500	Kansas Rural Center, Tuttle Creek WRAPS
		Newspaper Articles	Annual - Fall	\$0	Conservation Districts, Tuttle Creek WRAPS
		Extension Newsletter Article	Annual - Fall	\$0	Conservation Districts, Kansas Research and Extension (KSRE), Tuttle Creek WRAPS
		One-on-one Meetings with Producers	Annual - Ongoing	\$0	Conservation Districts, KSRE, Tuttle Creek WRAPS
No-till, Terraces, Waterways, Water Retention Structures and Cover Crops	Farmers and Rental Operators	Newsletters Article	Annual - Spring	\$0	Conservation Districts, KSRE, Tuttle Creek WRAPS
		Newspaper Articles	Annual - Fall	\$0	Conservation Districts, Tuttle Creek WRAPS
		Extension Newsletter Article	Annual - Fall	\$0	Conservation Districts, Kansas Research and Extension (KSRE), Tuttle Creek WRAPS
		One-on-one Meetings with Producers	Annual - Ongoing	\$0	Conservation Districts, KSRE, Tuttle Creek WRAPS
		Seasonal Informational Meeting (planting)	Annual - Spring	\$2,750	No-till on the Plains, Tuttle Creek WRAPS
		Scholarships for 25 producers to attend No-till Winter Conference (\$150/per person)	Annual - Winter	\$3,750	No-till on the Plains, Tuttle Creek WRAPS
Nutrient Management Plans	Farmers and Rental Operators	Cost Share for 600 Soil Tests (\$5 per test)	Annual - Ongoing	\$3,000	Conservation Districts, KSRE, Tuttle Creek WRAPS
		Extension Newsletter Article	Annual - Ongoing	\$0	Conservation Districts, KSRE, Tuttle Creek WRAPS
		One-on-one Meetings with Producers	Annual - Ongoing	\$0	KSRE, Tuttle Creek WRAPS
Subsurface Fertilizer Application	Farmers and Rental Operators	Field Day showcasing the latest subsurface fertilizer equipment	Annual - Winter	\$0	KSRE, Bruna Implement, Tuttle Creek WRAPS

Table A-31. I&E: Streambank BMP Implementation for Sediment and Nutrients

Streambank BMP Implementation					
BMP	Target Audience	Information/Education Activity/Event	Time Frame	Estimates Costs	Sponsor/Responsible Agency
Streambank Education	Landowners	One-on-one technical assistance	Annual - Ongoing	\$0	Conservation Districts, KSRE, Tuttle Creek WRAPS

Table A-32. I&E: Livestock BMP Implementation for Nutrients and E. Coli

Livestock BMP Implementation					
BMP	Target Audience	Information/Education Activity/Event	Time Frame	Estimates Costs	Sponsor/Responsible Agency
Vegetative Filter Strips	Landowners and Farmers/Ranchers	Demonstration Project	Annual -Spring	\$0	Kansas Rural Center, Tuttle Creek WRAPS
		Tour/Field Day	Annual - Summer	\$0	Kansas Rural Center, Tuttle Creek WRAPS
		Workshop/Tour	Annual - Winter	\$500	Kansas Rural Center, Tuttle Creek WRAPS
		Livestock Filter Strip and Feedlot Relocation Demonstration/tour	Annual - Winter	\$300	Conservation Districts, NRCS Tuttle Creek WRAPS
Relocate Feedlot	Landowners and Small Feedlot Operators	Demonstration Project	Annual -Spring	\$3,000	Kansas Rural Center, Tuttle Creek WRAPS
		Tour/Field Day	Annual - Summer	\$500	Kansas Rural Center, Conservation Districts, Tuttle Creek WRAPS
		EQIP Program Informational Meeting	Annual - Ongoing	\$0	Conservation Districts, NRCS Tuttle Creek WRAPS
Relocate Pasture Feeding Site	Ranchers	Demonstration Project	Annual -Spring	\$3,000	Kansas Rural Center, Tuttle Creek WRAPS
		Tour/Field Day	Annual - Summer	\$500	Kansas Rural Center, Conservation Districts, Tuttle Creek WRAPS
		Grazing Information Meeting	Annual - Fall	\$250	Kansas Rural Center, Conservation Districts, Tuttle Creek WRAPS
Off-Stream Watering System	Ranchers	Demonstration Project	Annual -Spring	\$3,000	Kansas Rural Center, Tuttle Creek WRAPS
		Tour/Field Day	Annual - Summer	\$500	Kansas Rural Center, Conservation Districts, Tuttle Creek WRAPS
		Grazing Information Meeting	Annual - Fall	\$0	Kansas Rural Center, Conservation Districts, Tuttle Creek WRAPS

Table A-33. I&E: Cropland BMP Implementation for Herbicides

Herbicide BMP Implementation					
BMP	Target Audience	Information/Education Activity/Event	Time Frame	Estimates Costs	Sponsor/Responsible Agency
Use Alternative Herbicide (other than Atrazine)	Farmers	Workshop highlighting use of organic or non-chemical weed control	Annual - Spring	\$2,000	Kansas Rural Center, NRCS (EQIP Organic Initiatives Provision), Tuttle Creek WRAPS
All Herbicide Reduction BMPs	Farmers	Workshop highlighting BMPS for herbicide reduction	Annual-Winter	\$1,000	KSRE, Tuttle Creek WRAPS

Table A-34. I&E: General Watershed Information and Education

Watershed Information and Education					
BMP	Target Audience	Information/Education Activity/Event	Time Frame	Estimates Costs	Sponsor/Responsible Agency
Education of Youth	Educators, K-12 Students	Day on the Farm	Annual - Spring	\$500	Conservation Districts, Kansas Farm Bureau, Kansas FFA Organization, KSRE, Tuttle Creek Watershed
		Poster, Essay and Speech Contests	Annual - Spring	\$200	Conservation Districts, Tuttle Creek WRAPS
		Envirothon	Annual - Spring	\$250	Conservation Districts, Tuttle Creek WRAPS
Education of Adults	Educators, Adults	Extension newsletter article	Annual - Ongoing	\$0	Conservation Districts, Tuttle Creek WRAPS
		Presentation at conservation district annual meeting	Annual - Winter	\$0	Conservation Districts, Tuttle Creek WRAPS
		Media campaign to promote forestry practices (brochures, news releases, TV, radio and web-based outlets)	Bi-annual - Ongoing	\$500	Kansas Forest Service, Tuttle Creek WRAPS
Education of all Watershed Residents	Watershed Residents	Media campaign to address urban nutrient runoff (flyers or handouts addressing phosphate and nitrate pollution from urban areas)	Annual - Ongoing	\$500	Local Environmental Protection Program, Tuttle Creek WRAPS
Total annual cost for Information and Education if all activities/events are held/achieved:				\$32,000	

2. Evaluation of Information and Education Activities

All service providers conducting I&E activities funded through the Tuttle Creek WRAPS will be required to include an evaluation component in their project implementation proposals. Evaluation methods will vary based on the activity. All service providers will be required to submit a brief written evaluation of their I&E activity, summarizing how successful the activity was in achieving the learning objectives, and how the activity contributed to achieving the long-term WRAPS goals and/or objectives for pollutant load reductions.

At a minimum, all I&E projects must include participant learning objectives as the basis for the overall evaluation. Depending on the scope of the project or activity, development of a basic logic model identifying long-term, medium-term, and short-term behavior changes or other expected outcomes may be required.

Specific evaluation tools or methods may include (but are not limited to):

- Feedback forms allowing participants to provide rankings of the content, presenters, usefulness of information, etc.
- Pre- and post-surveys to determine the amount of knowledge gained, anticipated behavior changes, need for further learning, etc.
- Follow-up interviews (e.g., one-on-one contacts, phone calls, or e-mails) with selected participants to gather more in-depth input regarding the effectiveness of the I&E activity.

D. Amended Costs of Implementing the WRAPs Plan and Possible Funding Sources

The SLT reviewed all the recommended BMPs in 2018 and while the implementation schedule has changed with the addition of targeted areas, the impairments and associated BMPs have not changed. Therefore, the SLT's determination of which BMPs will receive implementation funding in each priority area (cropland, streambank, and livestock) has not changed since the 2018 plan was approved.

Below are expenses before and after cost share for implementing BMPs designed to reduce sediment loss, nutrient loading, herbicide runoff, and *E. coli* bacteria. Cost derivations are located in the appendix of the 2018 plan.

1. BMP Implementation Costs in Cropland Areas to Address Sediment and Nutrients

Table A-35. Costs: Cropland BMP Implementation Costs Before Cost-Share

Total Annual Cost* Before Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$55,879	\$83,819	\$134,110	\$162,797	\$95,068	\$62,864	\$11,395	\$157,161	\$52,387	\$541,672
2	\$57,556	\$86,334	\$138,134	\$167,681	\$97,920	\$64,750	\$11,737	\$161,875	\$53,958	\$557,922
3	\$59,282	\$88,924	\$142,278	\$172,712	\$100,857	\$66,693	\$12,089	\$166,732	\$55,577	\$574,660
4	\$61,061	\$91,591	\$146,546	\$177,893	\$103,883	\$68,693	\$12,452	\$171,734	\$57,245	\$591,900
5	\$62,893	\$94,339	\$150,942	\$183,230	\$106,999	\$70,754	\$12,825	\$176,886	\$58,962	\$609,657
6	\$64,779	\$97,169	\$155,471	\$188,727	\$110,209	\$72,877	\$13,210	\$182,192	\$60,731	\$627,946
7	\$66,723	\$100,084	\$160,135	\$194,389	\$113,516	\$75,063	\$13,606	\$187,658	\$62,553	\$646,785
8	\$68,725	\$103,087	\$164,939	\$200,220	\$116,921	\$77,315	\$14,015	\$193,288	\$64,429	\$666,188
9	\$70,786	\$106,179	\$169,887	\$206,227	\$120,429	\$79,635	\$14,435	\$199,086	\$66,362	\$686,174
10	\$72,910	\$109,365	\$174,984	\$212,414	\$124,042	\$82,024	\$14,868	\$205,059	\$68,353	\$706,759
11	\$75,097	\$112,646	\$180,233	\$218,786	\$127,763	\$84,484	\$15,314	\$211,211	\$70,404	\$727,962
12	\$77,350	\$116,025	\$185,640	\$225,350	\$131,596	\$87,019	\$15,774	\$217,547	\$72,516	\$749,801
13	\$79,671	\$119,506	\$191,209	\$232,110	\$135,544	\$89,629	\$16,247	\$224,073	\$74,691	\$772,295
14	\$82,061	\$123,091	\$196,946	\$239,074	\$139,610	\$92,318	\$16,734	\$230,796	\$76,932	\$795,463
15	\$84,523	\$126,784	\$202,854	\$246,246	\$143,798	\$95,088	\$17,236	\$237,720	\$79,240	\$819,327
16	\$87,058	\$130,587	\$208,940	\$253,633	\$148,112	\$97,940	\$17,753	\$244,851	\$81,617	\$843,907
17	\$89,670	\$134,505	\$215,208	\$261,242	\$152,555	\$100,879	\$18,286	\$252,197	\$84,066	\$869,224
18	\$92,360	\$138,540	\$221,664	\$269,079	\$157,132	\$103,905	\$18,835	\$259,763	\$86,588	\$895,301
19	\$95,131	\$142,696	\$228,314	\$277,152	\$161,846	\$107,022	\$19,400	\$267,555	\$89,185	\$922,160
20	\$97,985	\$146,977	\$235,163	\$285,466	\$166,701	\$110,233	\$19,982	\$275,582	\$91,861	\$949,825
21	\$100,924	\$151,386	\$242,218	\$294,030	\$171,702	\$113,540	\$20,581	\$283,850	\$94,617	\$978,320
22	\$103,952	\$155,928	\$249,485	\$302,851	\$176,854	\$116,946	\$21,198	\$292,365	\$97,455	\$1,007,669
23	\$107,071	\$160,606	\$256,969	\$311,937	\$182,159	\$120,454	\$21,834	\$301,136	\$100,379	\$1,037,899
24	\$110,283	\$165,424	\$264,678	\$321,295	\$187,624	\$124,068	\$22,489	\$310,170	\$103,390	\$1,069,036
25	\$113,591	\$170,387	\$272,619	\$330,934	\$193,253	\$127,790	\$23,164	\$319,475	\$106,492	\$1,101,107
26	\$116,999	\$175,498	\$280,797	\$340,862	\$199,050	\$131,624	\$23,859	\$329,059	\$109,686	\$1,134,141
27	\$120,509	\$180,763	\$289,221	\$351,088	\$205,022	\$135,572	\$24,575	\$338,931	\$112,977	\$1,168,165
28	\$124,124	\$186,186	\$297,898	\$361,620	\$211,172	\$139,640	\$25,312	\$349,099	\$116,366	\$1,203,210
29	\$127,848	\$191,772	\$306,835	\$372,469	\$217,508	\$143,829	\$26,071	\$359,572	\$119,857	\$1,239,306
30	\$131,683	\$197,525	\$316,040	\$383,643	\$224,033	\$148,144	\$26,854	\$370,359	\$123,453	\$1,276,485
31	\$135,634	\$203,451	\$325,521	\$395,152	\$230,754	\$152,588	\$27,659	\$381,470	\$127,157	\$1,314,780
32	\$139,703	\$209,554	\$335,287	\$407,007	\$237,676	\$157,166	\$28,489	\$392,914	\$130,971	\$1,354,223
33	\$143,894	\$215,841	\$345,345	\$419,217	\$244,807	\$161,881	\$29,344	\$404,702	\$134,901	\$1,394,850
34	\$148,211	\$222,316	\$355,706	\$431,793	\$252,151	\$166,737	\$30,224	\$416,843	\$138,948	\$1,436,695
35	\$152,657	\$228,986	\$366,377	\$444,747	\$259,715	\$171,739	\$31,131	\$429,348	\$143,116	\$1,479,796
36	\$157,237	\$235,855	\$377,368	\$458,090	\$267,507	\$176,891	\$32,065	\$442,228	\$147,409	\$1,524,190
37	\$161,954	\$242,931	\$388,689	\$471,832	\$275,532	\$182,198	\$33,026	\$455,495	\$151,832	\$1,569,916
38	\$166,812	\$250,219	\$400,350	\$485,987	\$283,798	\$187,664	\$34,017	\$469,160	\$156,387	\$1,617,013
39	\$171,817	\$257,725	\$412,360	\$500,567	\$292,312	\$193,294	\$35,038	\$483,235	\$161,078	\$1,665,524
40	\$176,971	\$265,457	\$424,731	\$515,584	\$301,081	\$199,093	\$36,089	\$497,732	\$165,911	\$1,715,490
*3% Inflation									Total	\$40,842,744

Table A-36. Costs: Cropland BMP Implementation Costs After Cost-Share

Total Annual Cost* After Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$5,588	\$16,764	\$67,055	\$32,559	\$47,534	\$31,432	\$11,395	\$78,580	\$26,193	\$227,694
2	\$5,756	\$17,267	\$69,067	\$33,536	\$48,960	\$32,375	\$11,737	\$80,938	\$26,979	\$234,525
3	\$5,928	\$17,785	\$71,139	\$34,542	\$50,429	\$33,346	\$12,089	\$83,366	\$27,789	\$241,561
4	\$6,106	\$18,318	\$73,273	\$35,579	\$51,941	\$34,347	\$12,452	\$85,867	\$28,622	\$248,808
5	\$6,289	\$18,868	\$75,471	\$36,646	\$53,500	\$35,377	\$12,825	\$88,443	\$29,481	\$256,272
6	\$6,478	\$19,434	\$77,735	\$37,745	\$55,105	\$36,438	\$13,210	\$91,096	\$30,365	\$263,960
7	\$6,672	\$20,017	\$80,067	\$38,878	\$56,758	\$37,532	\$13,606	\$93,829	\$31,276	\$271,879
8	\$6,872	\$20,617	\$82,469	\$40,044	\$58,461	\$38,658	\$14,015	\$96,644	\$32,215	\$280,035
9	\$7,079	\$21,236	\$84,944	\$41,245	\$60,214	\$39,817	\$14,435	\$99,543	\$33,181	\$288,436
10	\$7,291	\$21,873	\$87,492	\$42,483	\$62,021	\$41,012	\$14,868	\$102,529	\$34,176	\$297,089
11	\$7,510	\$22,529	\$90,117	\$43,757	\$63,881	\$42,242	\$15,314	\$105,605	\$35,202	\$306,002
12	\$7,735	\$23,205	\$92,820	\$45,070	\$65,798	\$43,509	\$15,774	\$108,774	\$36,258	\$315,182
13	\$7,967	\$23,901	\$95,605	\$46,422	\$67,772	\$44,815	\$16,247	\$112,037	\$37,346	\$324,638
14	\$8,206	\$24,618	\$98,473	\$47,815	\$69,805	\$46,159	\$16,734	\$115,398	\$38,466	\$334,377
15	\$8,452	\$25,357	\$101,427	\$49,249	\$71,899	\$47,544	\$17,236	\$118,860	\$39,620	\$344,408
16	\$8,706	\$26,117	\$104,470	\$50,727	\$74,056	\$48,970	\$17,753	\$122,426	\$40,809	\$354,740
17	\$8,967	\$26,901	\$107,604	\$52,248	\$76,278	\$50,439	\$18,286	\$126,098	\$42,033	\$365,383
18	\$9,236	\$27,708	\$110,832	\$53,816	\$78,566	\$51,953	\$18,835	\$129,881	\$43,294	\$376,344
19	\$9,513	\$28,539	\$114,157	\$55,430	\$80,923	\$53,511	\$19,400	\$133,778	\$44,593	\$387,634
20	\$9,798	\$29,395	\$117,582	\$57,093	\$83,351	\$55,116	\$19,982	\$137,791	\$45,930	\$399,263
21	\$10,092	\$30,277	\$121,109	\$58,806	\$85,851	\$56,770	\$20,581	\$141,925	\$47,308	\$411,241
22	\$10,395	\$31,186	\$124,742	\$60,570	\$88,427	\$58,473	\$21,198	\$146,183	\$48,728	\$423,578
23	\$10,707	\$32,121	\$128,485	\$62,387	\$91,080	\$60,227	\$21,834	\$150,568	\$50,189	\$436,286
24	\$11,028	\$33,085	\$132,339	\$64,259	\$93,812	\$62,034	\$22,489	\$155,085	\$51,695	\$449,374
25	\$11,359	\$34,077	\$136,309	\$66,187	\$96,626	\$63,895	\$23,164	\$159,738	\$53,246	\$462,856
26	\$11,700	\$35,100	\$140,399	\$68,172	\$99,525	\$65,812	\$23,859	\$164,530	\$54,843	\$476,741
27	\$12,051	\$36,153	\$144,611	\$70,218	\$102,511	\$67,786	\$24,575	\$169,466	\$56,489	\$491,044
28	\$12,412	\$37,237	\$148,949	\$72,324	\$105,586	\$69,820	\$25,312	\$174,550	\$58,183	\$505,775
29	\$12,785	\$38,354	\$153,417	\$74,494	\$108,754	\$71,914	\$26,071	\$179,786	\$59,929	\$520,948
30	\$13,168	\$39,505	\$158,020	\$76,729	\$112,016	\$74,072	\$26,854	\$185,180	\$61,727	\$536,577
31	\$13,563	\$40,690	\$162,761	\$79,030	\$115,377	\$76,294	\$27,659	\$190,735	\$63,578	\$552,674
32	\$13,970	\$41,911	\$167,643	\$81,401	\$118,838	\$78,583	\$28,489	\$196,457	\$65,486	\$569,254
33	\$14,389	\$43,168	\$172,673	\$83,843	\$122,403	\$80,940	\$29,344	\$202,351	\$67,450	\$586,332
34	\$14,821	\$44,463	\$177,853	\$86,359	\$126,075	\$83,369	\$30,224	\$208,421	\$69,474	\$603,922
35	\$15,266	\$45,797	\$183,188	\$88,949	\$129,858	\$85,870	\$31,131	\$214,674	\$71,558	\$622,039
36	\$15,724	\$47,171	\$188,684	\$91,618	\$133,753	\$88,446	\$32,065	\$221,114	\$73,705	\$640,700
37	\$16,195	\$48,586	\$194,345	\$94,366	\$137,766	\$91,099	\$33,026	\$227,748	\$75,916	\$659,921
38	\$16,681	\$50,044	\$200,175	\$97,197	\$141,899	\$93,832	\$34,017	\$234,580	\$78,193	\$679,719
39	\$17,182	\$51,545	\$206,180	\$100,113	\$146,156	\$96,647	\$35,038	\$241,617	\$80,539	\$700,111
40	\$17,697	\$53,091	\$212,366	\$103,117	\$150,541	\$99,546	\$36,089	\$248,866	\$82,955	\$721,114
*3% Inflation									Total	\$17,168,438

2. Streambank Stabilization Costs to Address Sediment and Nutrients

Table A-37. Costs: Streambank Stabilization Implementation Costs

Total Annual Cost*, Streambank BMPs		
Year	Streambank Stabilization (feet)	Total Adoption Cost
1	4,750	\$458,755
2	4,750	\$472,518
3	4,750	\$486,693
4	4,750	\$501,294
5	4,750	\$516,333
6	4,750	\$531,823
7	4,750	\$547,777
8	4,750	\$564,211
9	4,750	\$581,137
10	4,750	\$598,571
11	4,750	\$616,528
12	4,750	\$635,024
13	4,750	\$654,075
14	4,750	\$673,697
15	4,750	\$693,908
16	4,750	\$714,725
17	4,750	\$736,167
18	4,750	\$758,252
19	4,750	\$781,000
20	4,750	\$804,430
21	4,750	\$828,563
22	4,750	\$853,419
23	4,750	\$879,022
24	4,750	\$905,393
25	4,750	\$932,554
26	4,750	\$960,531
27	4,750	\$989,347
28	4,750	\$1,019,027
29	4,750	\$1,049,598
30	4,750	\$1,081,086
31	4,750	\$1,113,519
32	4,750	\$1,146,924
33	4,750	\$1,181,332
34	4,750	\$1,216,772
35	4,750	\$1,253,275
36	4,750	\$1,290,873
37	4,750	\$1,329,600
38	4,750	\$1,369,488
39	4,750	\$1,410,572
40	4,750	\$1,452,889
*3% Inflation	Total	\$34,590,705

3. BMP Implementation Costs in Livestock Areas to Address Nutrients and *E. coli*

Table A-38. Costs: Livestock BMP Implementation Before Cost-Share

Total Annual Cost*, Livestock BMPs								
Year	Alternative Watering Site			Reloacte Small Feedlots	Relocate Pasture Feeding Sites		Vegetative Filter Strip	Total Adoption Cost
	Native	Cool Season	Cropland		Native	Cool Season		
1	\$7,590	\$0	\$3,795	\$0	\$4,406	\$0	\$714	\$16,505
2	\$7,818	\$3,909	\$3,909	\$6,820	\$4,538	\$2,269	\$735	\$29,998
3	\$8,052	\$0	\$4,026		\$4,674	\$0	\$757	\$17,509
4	\$8,294	\$4,147	\$4,147	\$7,235	\$7,815	\$2,407	\$780	\$34,825
5	\$8,543	\$0	\$4,271	\$0	\$4,959	\$0	\$804	\$18,577
6	\$8,799	\$4,399	\$4,399	\$7,676	\$2,554	\$2,554	\$828	\$31,209
7	\$9,063	\$0	\$4,531	\$0	\$2,630	\$0	\$853	\$17,077
8	\$9,335	\$4,667	\$4,667	\$8,143	\$2,709	\$2,709	\$878	\$33,108
9	\$9,615	\$0	\$4,807	\$0	\$2,791	\$0	\$904	\$18,117
10	\$9,903	\$4,952	\$4,952	\$8,639	\$2,874	\$2,874	\$932	\$35,126
11	\$10,200	\$0	\$5,100	\$0	\$2,961	\$0	\$960	\$19,221
12	\$10,506	\$5,253	\$5,253	\$9,165	\$3,049	\$3,049	\$988	\$37,264
13	\$10,822	\$0	\$5,411	\$0	\$3,141	\$0	\$1,018	\$20,391
14	\$11,146	\$5,573	\$5,573	\$9,723	\$3,235	\$3,235	\$1,049	\$39,534
15	\$11,481	\$0	\$5,740	\$0	\$3,332	\$0	\$1,080	\$21,633
16	\$11,825	\$5,912	\$5,912	\$10,315	\$3,432	\$3,432	\$1,112	\$41,940
17	\$12,180	\$0	\$6,090		\$3,535	\$0	\$1,146	\$22,951
18	\$12,545	\$6,273	\$6,273	\$10,944	\$3,641	\$3,641	\$1,180	\$44,497
19	\$12,921	\$0	\$6,461	\$0	\$3,750	\$0	\$1,216	\$24,348
20	\$13,309	\$6,655	\$6,655	\$11,610	\$3,863	\$3,863	\$1,252	\$47,207
21	\$13,708	\$0	\$6,854	\$0	\$3,979	\$0	\$1,290	\$25,832
22	\$14,120	\$7,060	\$7,060	\$12,317	\$4,098	\$4,098	\$1,328	\$50,080
23	\$14,543	\$0	\$7,272	\$0	\$4,221	\$0	\$1,368	\$27,404
24	\$14,980	\$7,490	\$7,490	\$13,067	\$4,348	\$4,348	\$1,409	\$53,131
25	\$15,429	\$0	\$7,714	\$0	\$4,478	\$0	\$1,451	\$29,072
26	\$15,892	\$7,946	\$7,946	\$13,863	\$4,613	\$4,613	\$1,495	\$56,368
27	\$16,369	\$0	\$8,184	\$0	\$4,751	\$0	\$1,540	\$30,844
28	\$16,860	\$8,430	\$8,430	\$14,707	\$4,893	\$4,893	\$1,586	\$59,798
29	\$17,365	\$0	\$8,683	\$0	\$5,040	\$0	\$1,634	\$32,722
30	\$17,886	\$8,943	\$8,943	\$15,603	\$5,192	\$5,192	\$1,683	\$63,442
31	\$18,423	\$0	\$9,211	\$0	\$5,347	\$0	\$1,733	\$34,714
32	\$18,976	\$9,488	\$9,488	\$16,553	\$5,508	\$5,508	\$1,785	\$67,305
33	\$19,545	\$0	\$9,772	\$0	\$5,673	\$0	\$1,839	\$36,829
34	\$20,131	\$10,066	\$10,066	\$17,561	\$5,843	\$5,843	\$1,894	\$71,404
35	\$20,735	\$0	\$10,368	\$0	\$6,018	\$0	\$1,951	\$39,072
36	\$21,357	\$10,679	\$10,679	\$18,631	\$6,199	\$6,199	\$2,009	\$75,753
37	\$21,998	\$0	\$10,999	\$0	\$6,385	\$0	\$2,069	\$41,451
38	\$22,658	\$11,329	\$11,329	\$19,765	\$6,576	\$6,576	\$2,131	\$80,364
39	\$23,338	\$0	\$11,669	\$0	\$6,774	\$0	\$2,195	\$43,975
40	\$24,038	\$12,019	\$12,019	\$20,969	\$6,977	\$6,977	\$2,261	\$85,260
*3% Inflation							Total	\$1,575,858

Table A-39. Costs: Livestock BMP Implementation After Cost-Share

Total Annual Cost* After Cost-Share, Livestock BMPs								
Year	Alternative Watering Site			Reloacte Small Feedlots	Relocate Pasture Feeding Sites		Vegetative Filter Strip	Total Adoption Cost
	Native	Cool Season	Cropland		Native	Cool Season		
1	\$3,795	\$0	\$1,898	\$0	\$2,203	\$0	\$357	\$8,253
2	\$3,909	\$1,954	\$1,955	\$3,410	\$2,269	\$1,135	\$368	\$15,000
3	\$4,026	\$0	\$2,014	\$0	\$2,337	\$0	\$379	\$8,756
4	\$4,147	\$2,073	\$2,074	\$3,618	\$2,407	\$1,204	\$390	\$15,913
5	\$4,271	\$0	\$2,136	\$0	\$2,479	\$0	\$402	\$9,289
6	\$4,399	\$2,199	\$2,200	\$3,838	\$2,554	\$1,277	\$414	\$16,882
7	\$4,531	\$0	\$2,266	\$0	\$2,630	\$0	\$426	\$9,855
8	\$4,667	\$2,333	\$2,334	\$4,072	\$2,709	\$1,355	\$439	\$17,910
9	\$4,807	\$0	\$2,404	\$0	\$2,791	\$0	\$452	\$10,455
10	\$4,952	\$2,475	\$2,476	\$4,320	\$2,874	\$1,438	\$466	\$19,001
11	\$5,100	\$0	\$2,551	\$0	\$2,961	\$0	\$480	\$11,091
12	\$5,253	\$2,626	\$2,627	\$4,583	\$3,049	\$1,525	\$494	\$20,158
13	\$5,411	\$0	\$2,706	\$0	\$3,141	\$0	\$509	\$11,767
14	\$5,573	\$2,786	\$2,787	\$4,862	\$3,235	\$1,618	\$524	\$21,386
15	\$5,740	\$0	\$2,871	\$0	\$3,332	\$0	\$540	\$12,483
16	\$5,912	\$2,956	\$2,957	\$5,158	\$3,432	\$1,717	\$556	\$22,688
17	\$6,090	\$0	\$3,046	\$0	\$3,535	\$0	\$573	\$13,244
18	\$6,273	\$3,136	\$3,137	\$5,472	\$3,641	\$1,821	\$590	\$24,070
19	\$6,461	\$0	\$3,231	\$0	\$3,750	\$0	\$608	\$14,050
20	\$6,655	\$3,327	\$3,328	\$5,805	\$3,863	\$1,932	\$626	\$25,536
21	\$6,854	\$0	\$3,428	\$0	\$3,979	\$0	\$645	\$14,906
22	\$7,060	\$3,529	\$3,531	\$6,159	\$4,098	\$2,050	\$664	\$27,091
23	\$7,272	\$0	\$3,637	\$0	\$4,221	\$0	\$684	\$15,814
24	\$7,490	\$3,744	\$3,746	\$6,534	\$4,348	\$2,175	\$705	\$28,741
25	\$7,714	\$0	\$3,858	\$0	\$4,478	\$0	\$726	\$16,777
26	\$7,946	\$3,972	\$3,974	\$6,932	\$4,613	\$2,307	\$747	\$30,491
27	\$8,184	\$0	\$4,093	\$0	\$4,751	\$0	\$770	\$17,798
28	\$8,430	\$4,214	\$4,216	\$7,354	\$4,893	\$2,448	\$793	\$32,348
29	\$8,683	\$0	\$4,342	\$0	\$5,040	\$0	\$817	\$18,882
30	\$8,943	\$4,471	\$4,473	\$7,802	\$5,192	\$2,597	\$841	\$34,318
31	\$9,211	\$0	\$4,607	\$0	\$5,347	\$0	\$867	\$20,032
32	\$9,488	\$4,743	\$4,745	\$8,277	\$5,508	\$2,755	\$893	\$36,408
33	\$9,772	\$0	\$4,888	\$0	\$5,673	\$0	\$919	\$21,252
34	\$10,066	\$5,032	\$5,034	\$8,781	\$5,843	\$2,923	\$947	\$38,625
35	\$10,368	\$0	\$5,185	\$0	\$6,018	\$0	\$975	\$22,546
36	\$10,679	\$5,338	\$5,341	\$9,316	\$6,199	\$3,101	\$1,005	\$40,977
37	\$10,999	\$0	\$5,501	\$0	\$6,385	\$0	\$1,035	\$23,919
38	\$11,329	\$5,663	\$5,666	\$9,883	\$6,576	\$3,290	\$1,066	\$43,473
39	\$11,669	\$0	\$5,836	\$0	\$6,774	\$0	\$1,098	\$25,376
40	\$12,019	\$6,008	\$6,011	\$10,485	\$6,977	\$3,490	\$1,131	\$46,120
*3% Inflation							Total	\$863,682

4. BMP Implementation Costs on Cropland to Address Herbicides

Table A-40. Cost: Implementation of Herbicide BMPs after Cost-share on Cropland

Total Annual Cost*, Atrazine on Cropland BMPs						
Year	Use Alternative Herbicides	Early Application	Reduced Soil Applied Rate	Split Application	Vegetative Buffers	Total Adoption Cost
1	\$9,244	\$15,406	\$2,773	\$15,406	\$137,618	\$180,447
2	\$9,521	\$15,868	\$2,856	\$15,868	\$141,747	\$185,860
3	\$9,807	\$16,344	\$2,942	\$16,344	\$145,999	\$191,436
4	\$10,101	\$16,835	\$3,030	\$16,835	\$150,379	\$197,179
5	\$10,404	\$17,340	\$3,121	\$17,340	\$154,890	\$203,095
6	\$10,716	\$17,860	\$3,215	\$17,860	\$159,537	\$209,188
7	\$11,038	\$18,396	\$3,311	\$18,396	\$164,323	\$215,463
8	\$11,369	\$18,947	\$3,410	\$18,947	\$169,253	\$221,927
9	\$11,710	\$19,516	\$3,513	\$19,516	\$174,330	\$228,585
10	\$12,061	\$20,101	\$3,618	\$20,101	\$179,560	\$235,442
11	\$12,423	\$20,704	\$3,727	\$20,704	\$184,947	\$242,506
12	\$12,796	\$21,326	\$3,838	\$21,326	\$190,495	\$249,781
13	\$13,180	\$21,965	\$3,954	\$21,965	\$196,210	\$257,274
14	\$13,575	\$22,624	\$4,072	\$22,624	\$202,097	\$264,993
15	\$13,982	\$23,303	\$4,194	\$23,303	\$208,160	\$272,942
16	\$14,402	\$24,002	\$4,320	\$24,002	\$214,404	\$281,131
17	\$14,834	\$24,722	\$4,450	\$24,722	\$220,836	\$289,564
18	\$15,279	\$25,464	\$4,583	\$25,464	\$227,462	\$298,251
19	\$15,737	\$26,228	\$4,721	\$26,228	\$234,285	\$307,199
20	\$16,209	\$27,015	\$4,862	\$27,015	\$241,314	\$316,415
21	\$16,696	\$27,825	\$5,008	\$27,825	\$248,553	\$325,907
22	\$17,197	\$28,660	\$5,159	\$28,660	\$256,010	\$335,685
23	\$17,712	\$29,519	\$5,313	\$29,519	\$263,690	\$345,755
24	\$18,244	\$30,405	\$5,473	\$30,405	\$271,601	\$356,128
25	\$18,791	\$31,317	\$5,637	\$31,317	\$279,749	\$366,812
26	\$19,355	\$32,257	\$5,806	\$32,257	\$288,142	\$377,816
27	\$19,936	\$33,224	\$5,980	\$33,224	\$296,786	\$389,150
28	\$20,534	\$34,221	\$6,160	\$34,221	\$305,689	\$400,825
29	\$21,150	\$35,248	\$6,344	\$35,248	\$314,860	\$412,850
30	\$21,784	\$36,305	\$6,535	\$36,305	\$324,306	\$425,235
31	\$22,438	\$37,394	\$6,731	\$37,394	\$334,035	\$437,992
32	\$23,111	\$38,516	\$6,933	\$38,516	\$344,056	\$451,132
33	\$23,804	\$39,672	\$7,141	\$39,672	\$354,378	\$464,666
34	\$24,518	\$40,862	\$7,355	\$40,862	\$365,009	\$478,606
35	\$25,254	\$42,088	\$7,576	\$42,088	\$375,959	\$492,964
36	\$26,011	\$43,350	\$7,803	\$43,350	\$387,238	\$507,753
37	\$26,792	\$44,651	\$8,037	\$44,651	\$398,855	\$522,986
38	\$27,595	\$45,990	\$8,278	\$45,990	\$410,821	\$538,675
39	\$28,423	\$47,370	\$8,526	\$47,370	\$423,146	\$554,835
40	\$29,276	\$48,791	\$8,782	\$48,791	\$435,840	\$571,481
*3% Inflation					Total	\$13,605,931

5. BMP Implementation Costs for Technical Assistance

Table A-41. Cost: Technical Assistance Needed for BMP Implementation

Technical Assistance to Aid in BMP Implementation			
BMPs To Be Implemented	Technical Assistance	Projected Annual Cost	
Sediment (and Nutrient) BMPs on Cropland	Buffers		
	Cover Crops		
	Grassed Waterways		
	No-Till		
	Nutrient Management Plans		
	Permanent Vegetation		
	Subsurface Fertilizer Application		
	Terraces		
	Water Retention Structures		
Streambank	Stabilization practices may include: Riparian Buffers Field Borders Bottomland Timber in Wetlands Streambank Restoration	WRAPS Coordinator	\$50,000
		Watershed Specialist	\$45,000
Livestock	Alternative Watering Systems		
	Relocate Small Feedlots		
	Relocate Pasture Feeding Sites		
	Vegetative Filter Strips		
Herbicide BMPs on Cropland	Alternative Herbicides		
	Early Application (prior to April 15th)		
	Reduced Soil Applied Rate		
	Split Application		
	Vegetative Buffers		
		Total	\$95,000

6. Total BMP Implementation Costs

Table A-42. Total Annual Cost for BMP Implementation

Total Annual WRAPS Cost* After Cost-Share by Category							
Year	Cropland	Streambank	Livestock	Atrazine/ Herbicide	Information & Education	Technical Assistance	Total Annual Cost
1	\$227,694	\$458,755	\$8,253	\$180,447	\$32,000	\$95,000	\$1,002,149
2	\$234,525	\$472,518	\$15,000	\$185,860	\$32,960	\$97,850	\$1,038,713
3	\$241,561	\$486,693	\$8,756	\$191,436	\$33,949	\$100,786	\$1,063,180
4	\$248,808	\$501,294	\$15,913	\$197,179	\$34,967	\$103,809	\$1,101,970
5	\$256,272	\$516,333	\$9,289	\$203,095	\$36,016	\$106,923	\$1,127,928
6	\$263,960	\$531,823	\$16,882	\$209,188	\$37,097	\$110,131	\$1,169,080
7	\$271,879	\$547,777	\$9,855	\$215,463	\$38,210	\$113,435	\$1,196,619
8	\$280,035	\$564,211	\$17,910	\$221,927	\$39,356	\$116,838	\$1,240,277
9	\$288,436	\$581,137	\$10,455	\$228,585	\$40,537	\$120,343	\$1,269,493
10	\$297,089	\$598,571	\$19,001	\$235,442	\$41,753	\$123,953	\$1,315,810
11	\$306,002	\$616,528	\$11,091	\$242,506	\$43,005	\$127,672	\$1,346,805
12	\$315,182	\$635,024	\$20,158	\$249,781	\$44,295	\$131,502	\$1,395,943
13	\$324,638	\$654,075	\$11,767	\$257,274	\$45,624	\$135,447	\$1,428,825
14	\$334,377	\$673,697	\$21,386	\$264,993	\$46,993	\$139,511	\$1,480,956
15	\$344,408	\$693,908	\$12,483	\$272,942	\$48,403	\$143,696	\$1,515,841
16	\$354,740	\$714,725	\$22,688	\$281,131	\$49,855	\$148,007	\$1,571,146
17	\$365,383	\$736,167	\$13,244	\$289,564	\$51,351	\$152,447	\$1,608,155
18	\$376,344	\$758,252	\$24,070	\$298,251	\$52,891	\$157,021	\$1,666,829
19	\$387,634	\$781,000	\$14,050	\$307,199	\$54,478	\$161,731	\$1,706,092
20	\$399,263	\$804,430	\$25,536	\$316,415	\$56,112	\$166,583	\$1,768,339
21	\$411,241	\$828,563	\$14,906	\$325,907	\$57,796	\$171,581	\$1,809,993
22	\$423,578	\$853,419	\$27,091	\$335,685	\$59,529	\$176,728	\$1,876,031
23	\$436,286	\$879,022	\$15,814	\$345,755	\$61,315	\$182,030	\$1,920,222
24	\$449,374	\$905,393	\$28,741	\$356,128	\$63,155	\$187,491	\$1,990,281
25	\$462,856	\$932,554	\$16,777	\$366,812	\$65,049	\$193,115	\$2,037,163
26	\$476,741	\$960,531	\$30,491	\$377,816	\$67,001	\$198,909	\$2,111,489
27	\$491,044	\$989,347	\$17,798	\$389,150	\$69,011	\$204,876	\$2,161,226
28	\$505,775	\$1,019,027	\$32,348	\$400,825	\$71,081	\$211,022	\$2,240,079
29	\$520,948	\$1,049,598	\$18,882	\$412,850	\$73,214	\$217,353	\$2,292,845
30	\$536,577	\$1,081,086	\$34,318	\$425,235	\$75,410	\$223,874	\$2,376,500
31	\$552,674	\$1,113,519	\$20,032	\$437,992	\$77,672	\$230,590	\$2,432,479
32	\$569,254	\$1,146,924	\$36,408	\$451,132	\$80,003	\$237,508	\$2,521,229
33	\$586,332	\$1,181,332	\$21,252	\$464,666	\$82,403	\$244,633	\$2,580,617
34	\$603,922	\$1,216,772	\$38,625	\$478,606	\$84,875	\$251,972	\$2,674,771
35	\$622,039	\$1,253,275	\$22,546	\$492,964	\$87,421	\$259,531	\$2,737,777
36	\$640,700	\$1,290,873	\$40,977	\$507,753	\$90,044	\$267,317	\$2,837,665
37	\$659,921	\$1,329,600	\$23,919	\$522,986	\$92,745	\$275,336	\$2,904,508
38	\$679,719	\$1,369,488	\$43,473	\$538,675	\$95,527	\$283,597	\$3,010,479
39	\$700,111	\$1,410,572	\$25,376	\$554,835	\$98,393	\$292,104	\$3,081,392
40	\$721,114	\$1,452,889	\$46,120	\$571,481	\$101,345	\$300,868	\$3,193,817
*3% Inflation						Total	\$75,804,716

7. Potential Funding Sources and Service Providers

a. Potential Funding Sources

Potential funding sources for these BMPs include, but are but not limited to, the following organizations and programs.

Table A-43. Potential Funding Sources for BMP Implementation

Potential BMP Funding Sources	
Potential Funding Sources	Potential Funding Programs
Division of Conservation/Conservation Districts	State Cost Share Programs
Ducks Unlimited	
EPA/KDHE	319 Funding Grants
Kansas Alliance for Wetlands and Streams	
Kansas Department of Wildlife, Parks and Tourism	Partnering for Wildlife
Kansas Forest Service	
Kansas Water Office	Kansas Reservoir Protection Initiative
Natural Resources Conservation Service (NRCS)	Conservation Reserve Program (CRP)
	Environmental Quality Incentives Program (EQIP)
	Farmable Wetlands Program (FWP)
	Forestland Enhancement Program (FLEP)
	Grassland Reserve Program (GRP)
	State Acres for Wildlife Enhancement (SAFE)
	Regional Conservation Partnership Program (RCPP)
	Wetland Reserve Program (WRP)
	Wildlife Habitat Incentive Program (WHIP)
No-till on the Plains	
Quail Forever	
US Fish and Wildlife	

b. Technical Service Providers

Technical Service Providers are often needed to provide technical assistance and advice to landowners when choosing the most efficient BMP for implementation, especially as some BMPs require additional assistance to implement as they require design work or extra planning. Technical Service Providers also can help producers find alternate funding to aid in BMP implementation. All service providers are responsible for evaluating the installed or

implemented BMPs and/or other services provided and will report to SLT for completion approval.

Table A-44. Potential Service Providers for BMP Implementation

Technical Assistance to Aid in BMP Implementation				
BMPs To Be Implemented		Technical Assistance	I&E	Service Provider
Sediment (and Nutrient) BMPs on Cropland	Buffers	Design, cost-share, and maintenance.	BMP Workshops, Field Days and Field Tours	Natural Resources Conservation Service (NRCS), Farm Service Agency (FSA), Kansas Rural Center (KRC), No-Till on the Plains, Kansas Forest Service (KFS), K-State Research and Extension (KSRE), Division of Conservation (DOC), local Conservation Districts (CDs), Kansas Department of Wildlife and Parks (KDWP)
	Cover Crops			
	Grassed Waterways			
	No-Till	Development of Plan		
	Nutrient Management Plans	Design, cost-share, and maintenance.		
	Permanent Vegetation			
	Subsurface Fertilizer Application			
	Terraces			
	Water Retention Structures			
Streambank	Stabilization practices may include: Riparian Buffers Field Borders Bottomland Timber in Wetlands Streambank Restoration	Design, cost-share, and maintenance.	BMP Workshops, Field Days and Field Tours	Kansas Alliance of Wetlands and Streams (KAWS), NRCS, DOC, FSA, KFS, KRC, KSRE, local CDs, and KDWP
Livestock	Alternative Watering Systems	Design, cost-share, and maintenance.	BMP Workshops, Field Days and Field Tours	KSRE, NRCS, DOC, KRC, KAWS, No-Till on the Plains, local CDs, and KDWP
	Relocate Small Feedlots			
	Relocate Pasture Feeding Sites			
	Vegetative Filter Strips			
Herbicide BMPs on Cropland	Alternative Herbicides	Design, cost-share, and maintenance.	BMP Workshops, Field Days and Field Tours	NRCS, FSA, KRC, No-Till on the Plains, KFS, KSRE, DOC, and KDWP
	Early Application (prior to April 15th)			
	Reduced Soil Applied Rate			
	Split Application			
	Vegetative Buffers			

E. Amended Measurable Milestones

Milestones will be determined by number of acres treated, projects installed, contacts made to residents of the watershed, and water quality parameters at the end of every five years. The SLT will examine these criteria to determine if adequate progress has been made on BMP implementations to date. If they determine that adequate progress has not been made, they will readjust the implementation projects in order to achieve the TMDL by the end of 40 years, as stipulated in this WRAPS plan.

Table A-45. BMP Implementation Milestones in the Targeted Areas: Cropland

Cropland BMP Adoption Milestones (acres)											
	Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption
Short-Term	1	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
	2	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
	3	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
	4	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
	5	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
	<i>Sub-Total</i>	<i>4,191</i>	<i>8,382</i>	<i>4,191</i>	<i>10,475</i>	<i>8,382</i>	<i>2,095</i>	<i>2,095</i>	<i>6,286</i>	<i>2,095</i>	<i>48,185</i>
Medium-Term	6	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
	7	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
	8	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
	9	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
	10	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
	<i>Sub-Total</i>	<i>8,382</i>	<i>16,764</i>	<i>8,382</i>	<i>20,950</i>	<i>16,764</i>	<i>4,191</i>	<i>4,191</i>	<i>12,573</i>	<i>4,191</i>	<i>96,370</i>
Long-Term	11	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
	12	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
	13	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
	14	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
	15	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
	16	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
	17	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
	18	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
	19	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
	20	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
	21	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
	22	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
	23	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
	24	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
	25	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
	26	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
	27	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
	28	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
	29	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
	30	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637
31	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637	
32	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637	
33	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637	
34	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637	
35	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637	
36	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637	
37	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637	
38	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637	
39	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637	
40	838	1,676	838	2,095	1,676	419	419	1,257	419	9,637	
Total	33,522	67,055	33,522	83,800	67,044	16,761	16,761	50,283	16,761	385,480	

Table A-46. BMP Implementation Milestones in the Targeted Areas: Streambank

Streambank BMP Adoption Milestones (feet)			
	Year	Streambank Stabilization	
Short-Term	1	4,750	
	2	4,750	
	3	4,750	
	4	4,750	
	5	4,750	
	<i>Sub-Total</i>	<i>23,750</i>	
Medium-Term	6	4,750	
	7	4,750	
	8	4,750	
	9	4,750	
	10	4,750	
	<i>Sub-Total</i>	<i>47,500</i>	
Long-Term	11	4,750	
	12	4,750	
	13	4,750	
	14	4,750	
	15	4,750	
	16	4,750	
	17	4,750	
	18	4,750	
	19	4,750	
	20	4,750	
	21	4,750	
	22	4,750	
	23	4,750	
	24	4,750	
	25	4,750	
	26	4,750	
	27	4,750	
	28	4,750	
	29	4,750	
	30	4,750	
	31	4,750	
	32	4,750	
	33	4,750	
	34	4,750	
	35	4,750	
	36	4,750	
	37	4,750	
	38	4,750	
	39	4,750	
	40	4,750	
		Total	190,000

Table A-47. BMP Implementation Milestones in the Targeted Areas: Livestock

Livestock BMP Adoption Milestones (project)									
	Year	Alternative Watering Site			Relocate Small Feedlots	Relocate Pasture Feeding Sites		Vegetative Filter Strip	Total Adoption
		Native	Cool Season	Cropland		Native	Cool Season		
Short-Term	1	2	0	1	0	2	0	1	6
	2	2	1	1	1	2	1	1	9
	3	2	0	1	0	2	0	1	6
	4	2	1	1	1	2	1	1	9
	5	2	0	1	0	2	0	1	6
	<i>Sub-Total</i>	<i>10</i>	<i>2</i>	<i>5</i>	<i>2</i>	<i>10</i>	<i>2</i>	<i>5</i>	<i>36</i>
Medium-Term	6	2	1	1	1	2	1	1	9
	7	2	0	1	0	2	0	1	6
	8	2	1	1	1	2	1	1	9
	9	2	0	1	0	2	0	1	6
	10	2	1	1	1	2	1	1	9
	<i>Sub-Total</i>	<i>20</i>	<i>5</i>	<i>10</i>	<i>5</i>	<i>20</i>	<i>5</i>	<i>10</i>	<i>75</i>
Long-Term	11	2	0	1	0	2	0	1	6
	12	2	1	1	1	2	1	1	9
	13	2	0	1	0	2	0	1	6
	14	2	1	1	1	2	1	1	9
	15	2	0	1	0	2	0	1	6
	16	2	1	1	1	2	1	1	9
	17	2	0	1	0	2	0	1	6
	18	2	1	1	1	2	1	1	9
	19	2	0	1	0	2	0	1	6
	20	2	1	1	1	2	1	1	9
	21	2	0	1	0	2	0	1	6
	22	2	1	1	1	2	1	1	9
	23	2	0	1	0	2	0	1	6
	24	2	1	1	1	2	1	1	9
	25	2	0	1	0	2	0	1	6
	26	2	1	1	1	2	1	1	9
	27	2	0	1	0	2	0	1	6
	28	2	1	1	1	2	1	1	9
	29	2	0	1	0	2	0	1	6
	30	2	1	1	1	2	1	1	9
	31	2	0	1	0	2	0	1	6
	32	2	1	1	1	2	1	1	9
	33	2	0	1	0	2	0	1	6
	34	2	1	1	1	2	1	1	9
	35	2	0	1	0	2	0	1	6
	36	2	1	1	1	2	1	1	9
	37	2	0	1	0	2	0	1	6
	38	2	1	1	1	2	1	1	9
	39	2	0	1	0	2	0	1	6
	40	2	1	1	1	2	1	1	9
	Total	80	20	40	20	80	20	40	300

Table A-48. BMP Implementation Milestones in the Targeted Areas: Herbicide on Cropland

Atrazine BMP Adoption Milestones (treated acres), on Cropland							
	Year	Use Alternative Herbicides	Early Application	Reduced Soil Applied Rate	Split Application	Vegetative Buffers	Total Adoption
Short-Term	1	1,541	2,568	1,541	2,568	2,054	10,272
	2	1,541	2,568	1,541	2,568	2,054	10,272
	3	1,541	2,568	1,541	2,568	2,054	10,272
	4	1,541	2,568	1,541	2,568	2,054	10,272
	5	1,541	2,568	1,541	2,568	2,054	10,272
	<i>Sub-Total</i>	<i>7,705</i>	<i>12,840</i>	<i>7,705</i>	<i>12,840</i>	<i>10,270</i>	<i>51,360</i>
Medium-Term	6	1,541	2,568	1,541	2,568	2,054	10,272
	7	1,541	2,568	1,541	2,568	2,054	10,272
	8	1,541	2,568	1,541	2,568	2,054	10,272
	9	1,541	2,568	1,541	2,568	2,054	10,272
	10	1,541	2,568	1,541	2,568	2,054	10,272
	<i>Sub-Total</i>	<i>15,410</i>	<i>25,680</i>	<i>15,410</i>	<i>25,680</i>	<i>20,540</i>	<i>102,720</i>
Long-Term	11	1,541	2,568	1,541	2,568	2,054	10,272
	12	1,541	2,568	1,541	2,568	2,054	10,272
	13	1,541	2,568	1,541	2,568	2,054	10,272
	14	1,541	2,568	1,541	2,568	2,054	10,272
	15	1,541	2,568	1,541	2,568	2,054	10,272
	16	1,541	2,568	1,541	2,568	2,054	10,272
	17	1,541	2,568	1,541	2,568	2,054	10,272
	18	1,541	2,568	1,541	2,568	2,054	10,272
	19	1,541	2,568	1,541	2,568	2,054	10,272
	20	1,541	2,568	1,541	2,568	2,054	10,272
	21	1,541	2,568	1,541	2,568	2,054	10,272
	22	1,541	2,568	1,541	2,568	2,054	10,272
	23	1,541	2,568	1,541	2,568	2,054	10,272
	24	1,541	2,568	1,541	2,568	2,054	10,272
	25	1,541	2,568	1,541	2,568	2,054	10,272
	26	1,541	2,568	1,541	2,568	2,054	10,272
	27	1,541	2,568	1,541	2,568	2,054	10,272
	28	1,541	2,568	1,541	2,568	2,054	10,272
	29	1,541	2,568	1,541	2,568	2,054	10,272
	30	1,541	2,568	1,541	2,568	2,054	10,272
	31	1,541	2,568	1,541	2,568	2,054	10,272
	32	1,541	2,568	1,541	2,568	2,054	10,272
	33	1,541	2,568	1,541	2,568	2,054	10,272
	34	1,541	2,568	1,541	2,568	2,054	10,272
	35	1,541	2,568	1,541	2,568	2,054	10,272
	36	1,541	2,568	1,541	2,568	2,054	10,272
	37	1,541	2,568	1,541	2,568	2,054	10,272
	38	1,541	2,568	1,541	2,568	2,054	10,272
	39	1,541	2,568	1,541	2,568	2,054	10,272
	40	1,541	2,568	1,541	2,568	2,054	10,272
	Total	61,640	102,720	61,640	102,720	82,160	410,880

1. Benchmarks to measure water quality and social progress

Over a 10- to 40-year time frame, the Tuttle Creek Watershed WRAPS plan hopes to improve water quality throughout the watershed and in Tuttle Creek Lake. To monitor these improvements, measurements taken at Tuttle Creek Lake are important because it is the drainage endpoint of the watershed. Social indicators of success also will be examined by tracking traffic in Tuttle Creek Lake Park. This is because a good example of a healthy lake ecosystem is frequent visits by the public to enjoy the outdoor recreation of the lake and park.

After reviewing the criteria listed in **Table A-49**, the SLT will assess and revise the overall strategy plan for the watershed. New goals will be set and new BMPs will be implemented to achieve improved water quality. Coordination with KDHE TMDL staff, Water Plan staff and the SLT will be held every five years to discuss benchmarks and TMDL update plans. Using data obtained by KDHE, KSU or the Kansas City District Army Corps of Engineers, the following indicator and parameter criteria shall be used to assess progress toward successful implementation to abate pollutant loads.

Table A-49. Benchmarks Measuring Water Quality Improvements in the Watershed

Benchmarks to Measure Progress		
Impairment Addressed	Criteria to Measure Water Quality Progress	Information Source
Sediment	Number of acres of buffers and grassed waterways installed indicating that there would be a reduction in sediment into Tuttle Creek Lake	NRCS
	Post-2010 average TSS and TP data from KDHE field collection on all streams should show decline in values from those seen in 2000-2009	KDHE
	Tuttle Creek Lake TSS < 10 mg/L and turbidity < 20 NTU	KDHE
	In-stream TSS < 100 mg/L	KDHE
	Boat ramps should continue to function within the pool range of 1070-1075 feet msl	COE
	COE bathymetric survey in 2010 and KWO/KBS bathymetry in 2020 should be within 15% of one another	COE, KWO, KBS
	Fewer high event stream flow rates entering Tuttle Creek Lake indicating better retention and slower release of storm water in the upper end of the watershed	USGS
	Conservation storage in Tuttle Creek Lake will be 270,000 acre feet	COE
Sediment and Nutrients	Secchi disc depth > 1.0 meters in Tuttle Creek Lake	KDHE
	The difference in TSS and TP loads between the Stateline and Waterville and Blue Rapids should decline from those differences seen in 2000-2009	KDHE
Nutrients	No algal blooms are reported as the lake clarity improves	KDHE
	In-lake phosphorus levels should average < 200 ppb	KDHE
	In-stream phosphorus levels should average < 200 ppb	KDHE
	In-lake chlorophyll levels should average < 10 ppb as the lake becomes less turbid	KDHE
Fecal Coliform Bacteria	Number of livestock that have been relocated from close proximity to a stream indicating that there would be a reduction in fecal coliform bacteria into Tuttle Creek Lake	Watershed Specialist
	No beach closures at Tuttle Creek Lake	KDHE
	No health advisories will be issued warning citizens to stay out of the Big and Little Blue Rivers and tributaries because of high bacteria counts	KDHE
	Over time, the distribution of bacteria index values determined from routind KDHE sampling will shift downward such that the upper quartile (75%) will be in the vicinity of 1.03 (75% of the samples during April-October will be below 500 counts) and the upper decile (90%) will be 1.14 (90% of samples during April-October will be below 1,000 counts). However, because of the excessively large bacteria counts seen in the streams system currently, the shorter term indicator will simply be some reduction in the upper quartile and upper decile index values from current conditions seen above.	KDHE
	Bacteria levels should be reduced such that no more than 10% of samples taken between April and October exceed 300 on the Big Blue and 450 on the Little Blue, Mill Creek and the Black Vermillion.	KDHE
Herbicide	Reduction in the amount of alachlor and atrazine that is applied to crops indicating that there would be lower rates of atrazine concentration in Tuttle Creek Lake	Farmer's Cooperatives and Herbicide Sales
	Alachlor should never exceed 2 ppb. Average monthly atrazine levels should exceed 3 ppb once every three years and the running annual average should never exceed 3 ppb for Tuttle Creek and the Blue River drainage; no samples should ever exceed 170 ppb; and elevated atrazine should only be seen in Tuttle Creek Lake in May and June above the Randolph causeway while the lake is in flood pool; elevated atrazine should never been found in streams below mean daily flow.	KDHE
Impairment Addressed	Social Indicators to Measure Water Quality Progress	Information Source
Sediment, Nutrients, E. coli and Herbicides	Visitor traffic to Tuttle Creek Lake	KDWP
	Boating traffic in Tuttle Creek Lake	KDWP
	Quantity and quality of fishing in Tuttle Creek Lake	KDWP
	Economic indicators indicating effect of Tuttle Creek Lake's impact on local businesses	Riley County Economic Development
	Survey of water quality issues to determine whether information and education programs are having an effect on public perception	KSRE
	Number of attendees at workshops and field days	KSRE
	BMP adoptability rates	NRCS

The goals of the Tuttle Creek watershed plan will be to restore water quality for uses supportive of aquatic life, primary contact recreation and public water supply for Tuttle Creek Lake, the Big Blue, Little Blue and Black Vermillion rivers and their tributaries. This restoration plan will take 40 years of BMP implementation.

a. Sediment and Phosphorus Milestones in 2020

At the end of 10 years, the SLT will be able to examine water quality data for suspended solids (sediment determination) and phosphorus (eutrophication determination) to determine if progress has been made to improve water quality. It is estimated that it will require 10 years to see progress after BMP implementation on phosphorus and sediment reduction in the waterways. KDHE has outlined water quality goals for total phosphorus and total suspended solids. These goals are presented below.

Table A-50. Water Quality Goals for Sediment and Phosphorus

Sampling Sites	Sediment (median of data collected during indicated period), ppm			Total Phosphorus (median of data collected during indicated period), ppb		
	Current Condition (2000-2009)	Improved Condition (2010-2019)	Reduction Needed	Current Condition (2000-2009)	Improved Condition (2010-2019)	Reduction Needed
Blue Rapids (Blue River)	107	70	37	623	560	63
Waterville (Little Blue River)	47	35	12	366	300	66
Black Vermillion River	55	40	15	259	230	29
Hanover (Mill Creek)	37	30	7	255	180	75

b. Herbicide milestones in 2020

Alachlor and atrazine milestones are to be reviewed at the end of 10 years. The impact of BMP implementations will be obvious by this time. Because KDHE has not set any milestones for alachlor at this time, only atrazine milestones will be covered. KDHE has set the atrazine milestones as:

- Atrazine will not exceed 3ppb on any streams during the year, except during the high flow months of May and June, and
- When exceedances do occur in May and June, they take place when flows exceed the indicated monthly flows.

If atrazine does exceed 3 ppb during the months of May and June, then the stream flows should be greater than:

- Big Blue at Marysville: 1,900 cfs (cubic feet per second)
- Little Blue River at Barnes: 1,000 cfs
- Black Vermillion River at Frankfort: 300 cfs
- Mill Creek near Hanover: 200 cfs

c. E. coli bacteria milestones in 2020

Bacteria reductions can be observed in 10 years after the onset of implementation of BMPs. KDHE has determined that the 10-year milestone for bacteria should be based on the percentage of April to October samples that are less than the 427 count criterion for the Little

Blue, Big Blue and Black Vermillion Rivers. At the end of 10 years, there should be at least 60 to 65 percent of the samples that are under 427. Current percentage (2009) is 50 to 55 percent. This will be a reduction of 10 to 15 percent in number of sample exceedances.

2. BMP implementation milestones from 2020 to 2050

The SLT will review the number of acres, projects or contacts made in the watershed every five years until the end of this WRAPS plan, which is the year 2050. At the end of each five-year period, the SLT will have the option to reassess the goals and alter BMP implementations as they determine is best.

F. Amended Review of the WRAPS Plan

In the year 2028, this WRAPS plan will be reviewed and revised according to results acquired from monitoring data. At this time, the SLT will review the following criteria in addition to any other concerns that may occur at that time:

The SLT will ask KDHE for a report on the milestone achievements in **sediment, phosphorus, herbicide** (alachlor and atrazine) and ***E. coli* bacteria** load reductions.

- **Sediment:** the 2028 milestone for sediment should be based on the percentage of samples measuring less than 70 ppm for Blue River, 35 ppm for Little Blue River, 40 for the Black Vermillion River and 30 for Mill Creek.
- **Phosphorus:** the 2028 milestone for phosphorus should be based on the percentage of samples measuring less than 560 ppm for Blue River, 300 ppm for Little Blue River, 230 for the Black Vermillion River and 180 for Mill Creek.
- **Herbicides:**alachlor does not exceed 2 ppb on any streams during the year except during the high flow months of May and June; atrazine does not exceed 3ppb on any streams during the year except during the high flow months of May and June; and when exceedances do occur in May and June, they take place when flows exceed the indicated monthly flows.
- ***E. coli* bacteria:** the 2028 milestone for bacteria should be based on the percentage of April to October samples measuring less than the 427 count criterion for Little Blue, Big Blue and Black Vermillion Rivers. In 2028, there should be at least 60 to 65 percent of the samples measuring under 427.

The SLT will request various reports when necessary. These include:

- Reports from KDHE concerning revising the watershed TMDLs, including possible nutrient and/or sediment criteria, revised load allocations distributed between Kansas and Nebraska, and new waste load allocations defined for the point sources in the Kansas portion of the drainage.
- Reports from KDHE and COE on trends in water quality in Tuttle Creek Lake.
- A report on emergence of nitrogen as pollutant of concern.

In turn, the SLT will provide various reports when necessary. These include:

- progress towards achieving the benchmarks listed in this report;
- progress towards achieving the BMP adoption rates in this report; and
- discuss necessary adjustments and revisions needed in the targets listed in this plan.

G. Amended Budget Derivations

1. Cropland

Summarized Derivation of Cropland BMP Cost Estimates

- Buffer: Cost is \$67 per treated acre with a 90 percent cost share.
- Cover Crops: Cost is \$50 per treated acre with an 80 percent cost share.
- Grassed Waterway: Cost is \$160 per treated acre with a 50 percent cost share.
- No-Till: Cost is \$78 per treated acre with an 80 percent cost share.
- Nutrient Management Plans: Cost is \$57 per treated acre with a 50 percent cost share.
- Permanent Vegetation: Cost is \$150 per treated acre with 50 percent cost share.
- Subsurface Fertilizer Application: Cost is \$27 per treated acre with no cost share.
- Terraces: Cost is \$125 per treated acre with a 50 percent cost share.
- Water Retention Structures: Cost is \$125 per treated acre with 50 percent cost share.

2. Streambank

Summarized Derivation of Streambank BMP Cost Estimates

A 2009 study conducted by Kansas State University Agricultural Economists calculated that streambank stabilization costs an average of \$41.66 per linear foot, including all engineering and design costs. Sites are extremely variable.

3. Livestock

Summarized Derivation of Livestock BMP Cost Estimates

- Alternative Watering System: Cost is \$3,795 with 50 percent cost share.
- Relocated Small Feedlot: Cost is \$6,621 with 50 percent cost share. Cost includes the cost of fencing, a new watering system, concrete, and labor.
- Relocated Pasture Feeding Site: Cost is \$2,203 with 50 percent cost share. Cost includes the cost of building ¼ mile of fence, a permeable surface, and labor.
- Vegetative Filter Strip: Cost is \$714 per unit with 50 percent cost share.

4. Herbicide

Determination of Herbicide Application

- Use of alternative herbicide/ no alachlor or atrazine: Cost share is \$6 per treated acre.
- Early application (prior to April 15): Cost share is \$6 per treated acre.
- Split application: Cost share is \$6 per treated acre.
- Reduced soil applied rate: Cost share is \$1.80 per treated acre.
- Vegetative buffers: \$67 per treated acre (under cropland and livestock BMPs)

H. Amended Appendix Tables

Adoption, load reduction, and implementation cost tables for the sub-watersheds/targeted areas (HUC 12s and riparian corridor area as shown in **Figure A-8** that are to implement cropland BMPs for sediment and nutrient load reductions can be found in this section.

Please note that there are no individual sub-watershed tables for BMP implementation in streambank, livestock or cropland for herbicide areas. Unlike cropland BMPs implemented for sediment and nutrient reductions, BMPs implemented in these areas are implemented as a total goal for the entire Tuttle Creek Watershed, they do not have individual sub-watershed implementation goals.

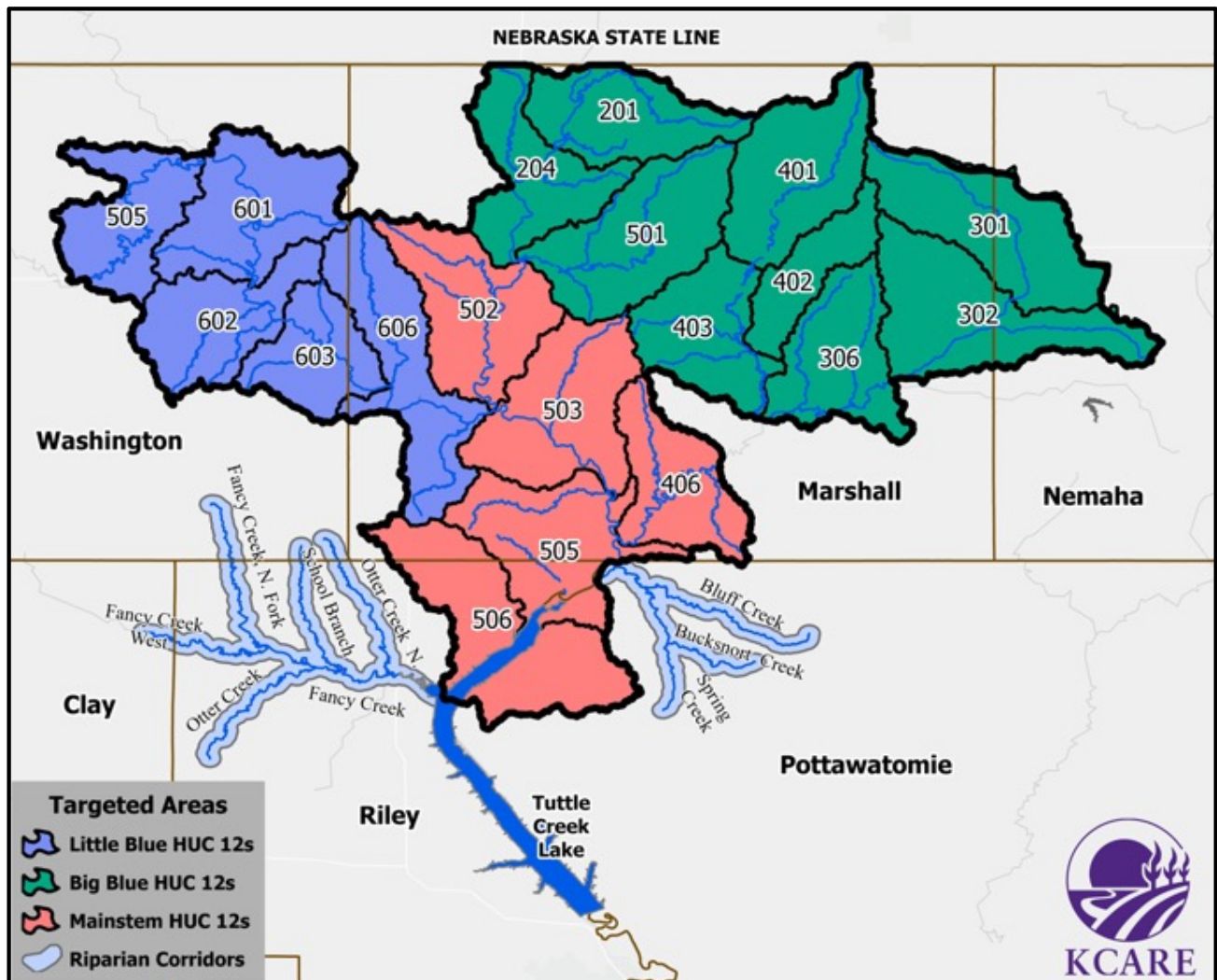


Figure A-8. Targeted Areas for BMP Implementation

1. Cropland Adoption Tables by Sub-Watershed/Targeted Area

a. Little Blue Targeted Areas

HUC 12 # 102702070505 Annual Adoption (treated acres), Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption
1	31	62	31	78	62	16	16	47	16	357
2	31	62	31	78	62	16	16	47	16	357
3	31	62	31	78	62	16	16	47	16	357
4	31	62	31	78	62	16	16	47	16	357
5	31	62	31	78	62	16	16	47	16	357
6	31	62	31	78	62	16	16	47	16	357
7	31	62	31	78	62	16	16	47	16	357
8	31	62	31	78	62	16	16	47	16	357
9	31	62	31	78	62	16	16	47	16	357
10	31	62	31	78	62	16	16	47	16	357
11	31	62	31	78	62	16	16	47	16	357
12	31	62	31	78	62	16	16	47	16	357
13	31	62	31	78	62	16	16	47	16	357
14	31	62	31	78	62	16	16	47	16	357
15	31	62	31	78	62	16	16	47	16	357
16	31	62	31	78	62	16	16	47	16	357
17	31	62	31	78	62	16	16	47	16	357
18	31	62	31	78	62	16	16	47	16	357
19	31	62	31	78	62	16	16	47	16	357
20	31	62	31	78	62	16	16	47	16	357
21	31	62	31	78	62	16	16	47	16	357
22	31	62	31	78	62	16	16	47	16	357
23	31	62	31	78	62	16	16	47	16	357
24	31	62	31	78	62	16	16	47	16	357
25	31	62	31	78	62	16	16	47	16	357
26	31	62	31	78	62	16	16	47	16	357
27	31	62	31	78	62	16	16	47	16	357
28	31	62	31	78	62	16	16	47	16	357
29	31	62	31	78	62	16	16	47	16	357
30	31	62	31	78	62	16	16	47	16	357
31	31	62	31	78	62	16	16	47	16	357
32	31	62	31	78	62	16	16	47	16	357
33	31	62	31	78	62	16	16	47	16	357
34	31	62	31	78	62	16	16	47	16	357
35	31	62	31	78	62	16	16	47	16	357
36	31	62	31	78	62	16	16	47	16	357
37	31	62	31	78	62	16	16	47	16	357
38	31	62	31	78	62	16	16	47	16	357
39	31	62	31	78	62	16	16	47	16	357
40	31	62	31	78	62	16	16	47	16	357

HUC 12 # 102702070601 Annual Adoption (treated acres), Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption
1	33	67	33	83	67	17	17	50	17	383
2	33	67	33	83	67	17	17	50	17	383
3	33	67	33	83	67	17	17	50	17	383
4	33	67	33	83	67	17	17	50	17	383
5	33	67	33	83	67	17	17	50	17	383
6	33	67	33	83	67	17	17	50	17	383
7	33	67	33	83	67	17	17	50	17	383
8	33	67	33	83	67	17	17	50	17	383
9	33	67	33	83	67	17	17	50	17	383
10	33	67	33	83	67	17	17	50	17	383
11	33	67	33	83	67	17	17	50	17	383
12	33	67	33	83	67	17	17	50	17	383
13	33	67	33	83	67	17	17	50	17	383
14	33	67	33	83	67	17	17	50	17	383
15	33	67	33	83	67	17	17	50	17	383
16	33	67	33	83	67	17	17	50	17	383
17	33	67	33	83	67	17	17	50	17	383
18	33	67	33	83	67	17	17	50	17	383
19	33	67	33	83	67	17	17	50	17	383
20	33	67	33	83	67	17	17	50	17	383
21	33	67	33	83	67	17	17	50	17	383
22	33	67	33	83	67	17	17	50	17	383
23	33	67	33	83	67	17	17	50	17	383
24	33	67	33	83	67	17	17	50	17	383
25	33	67	33	83	67	17	17	50	17	383
26	33	67	33	83	67	17	17	50	17	383
27	33	67	33	83	67	17	17	50	17	383
28	33	67	33	83	67	17	17	50	17	383
29	33	67	33	83	67	17	17	50	17	383
30	33	67	33	83	67	17	17	50	17	383
31	33	67	33	83	67	17	17	50	17	383
32	33	67	33	83	67	17	17	50	17	383
33	33	67	33	83	67	17	17	50	17	383
34	33	67	33	83	67	17	17	50	17	383
35	33	67	33	83	67	17	17	50	17	383
36	33	67	33	83	67	17	17	50	17	383
37	33	67	33	83	67	17	17	50	17	383
38	33	67	33	83	67	17	17	50	17	383
39	33	67	33	83	67	17	17	50	17	383
40	33	67	33	83	67	17	17	50	17	383

HUC 12 # 102702070602 Annual Adoption (treated acres), Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption
1	23	46	23	57	46	11	11	34	11	263
2	23	46	23	57	46	11	11	34	11	263
3	23	46	23	57	46	11	11	34	11	263
4	23	46	23	57	46	11	11	34	11	263
5	23	46	23	57	46	11	11	34	11	263
6	23	46	23	57	46	11	11	34	11	263
7	23	46	23	57	46	11	11	34	11	263
8	23	46	23	57	46	11	11	34	11	263
9	23	46	23	57	46	11	11	34	11	263
10	23	46	23	57	46	11	11	34	11	263
11	23	46	23	57	46	11	11	34	11	263
12	23	46	23	57	46	11	11	34	11	263
13	23	46	23	57	46	11	11	34	11	263
14	23	46	23	57	46	11	11	34	11	263
15	23	46	23	57	46	11	11	34	11	263
16	23	46	23	57	46	11	11	34	11	263
17	23	46	23	57	46	11	11	34	11	263
18	23	46	23	57	46	11	11	34	11	263
19	23	46	23	57	46	11	11	34	11	263
20	23	46	23	57	46	11	11	34	11	263
21	23	46	23	57	46	11	11	34	11	263
22	23	46	23	57	46	11	11	34	11	263
23	23	46	23	57	46	11	11	34	11	263
24	23	46	23	57	46	11	11	34	11	263
25	23	46	23	57	46	11	11	34	11	263
26	23	46	23	57	46	11	11	34	11	263
27	23	46	23	57	46	11	11	34	11	263
28	23	46	23	57	46	11	11	34	11	263
29	23	46	23	57	46	11	11	34	11	263
30	23	46	23	57	46	11	11	34	11	263
31	23	46	23	57	46	11	11	34	11	263
32	23	46	23	57	46	11	11	34	11	263
33	23	46	23	57	46	11	11	34	11	263
34	23	46	23	57	46	11	11	34	11	263
35	23	46	23	57	46	11	11	34	11	263
36	23	46	23	57	46	11	11	34	11	263
37	23	46	23	57	46	11	11	34	11	263
38	23	46	23	57	46	11	11	34	11	263
39	23	46	23	57	46	11	11	34	11	263
40	23	46	23	57	46	11	11	34	11	263

HUC 12 # 102702070603 Annual Adoption (treated acres), Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption
1	29	59	29	73	59	15	15	44	15	338
2	29	59	29	73	59	15	15	44	15	338
3	29	59	29	73	59	15	15	44	15	338
4	29	59	29	73	59	15	15	44	15	338
5	29	59	29	73	59	15	15	44	15	338
6	29	59	29	73	59	15	15	44	15	338
7	29	59	29	73	59	15	15	44	15	338
8	29	59	29	73	59	15	15	44	15	338
9	29	59	29	73	59	15	15	44	15	338
10	29	59	29	73	59	15	15	44	15	338
11	29	59	29	73	59	15	15	44	15	338
12	29	59	29	73	59	15	15	44	15	338
13	29	59	29	73	59	15	15	44	15	338
14	29	59	29	73	59	15	15	44	15	338
15	29	59	29	73	59	15	15	44	15	338
16	29	59	29	73	59	15	15	44	15	338
17	29	59	29	73	59	15	15	44	15	338
18	29	59	29	73	59	15	15	44	15	338
19	29	59	29	73	59	15	15	44	15	338
20	29	59	29	73	59	15	15	44	15	338
21	29	59	29	73	59	15	15	44	15	338
22	29	59	29	73	59	15	15	44	15	338
23	29	59	29	73	59	15	15	44	15	338
24	29	59	29	73	59	15	15	44	15	338
25	29	59	29	73	59	15	15	44	15	338
26	29	59	29	73	59	15	15	44	15	338
27	29	59	29	73	59	15	15	44	15	338
28	29	59	29	73	59	15	15	44	15	338
29	29	59	29	73	59	15	15	44	15	338
30	29	59	29	73	59	15	15	44	15	338
31	29	59	29	73	59	15	15	44	15	338
32	29	59	29	73	59	15	15	44	15	338
33	29	59	29	73	59	15	15	44	15	338
34	29	59	29	73	59	15	15	44	15	338
35	29	59	29	73	59	15	15	44	15	338
36	29	59	29	73	59	15	15	44	15	338
37	29	59	29	73	59	15	15	44	15	338
38	29	59	29	73	59	15	15	44	15	338
39	29	59	29	73	59	15	15	44	15	338
40	29	59	29	73	59	15	15	44	15	338

HUC 12 # 102702070606 Annual Adoption (treated acres), Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption
1	45	90	45	112	90	22	22	67	22	515
2	45	90	45	112	90	22	22	67	22	515
3	45	90	45	112	90	22	22	67	22	515
4	45	90	45	112	90	22	22	67	22	515
5	45	90	45	112	90	22	22	67	22	515
6	45	90	45	112	90	22	22	67	22	515
7	45	90	45	112	90	22	22	67	22	515
8	45	90	45	112	90	22	22	67	22	515
9	45	90	45	112	90	22	22	67	22	515
10	45	90	45	112	90	22	22	67	22	515
11	45	90	45	112	90	22	22	67	22	515
12	45	90	45	112	90	22	22	67	22	515
13	45	90	45	112	90	22	22	67	22	515
14	45	90	45	112	90	22	22	67	22	515
15	45	90	45	112	90	22	22	67	22	515
16	45	90	45	112	90	22	22	67	22	515
17	45	90	45	112	90	22	22	67	22	515
18	45	90	45	112	90	22	22	67	22	515
19	45	90	45	112	90	22	22	67	22	515
20	45	90	45	112	90	22	22	67	22	515
21	45	90	45	112	90	22	22	67	22	515
22	45	90	45	112	90	22	22	67	22	515
23	45	90	45	112	90	22	22	67	22	515
24	45	90	45	112	90	22	22	67	22	515
25	45	90	45	112	90	22	22	67	22	515
26	45	90	45	112	90	22	22	67	22	515
27	45	90	45	112	90	22	22	67	22	515
28	45	90	45	112	90	22	22	67	22	515
29	45	90	45	112	90	22	22	67	22	515
30	45	90	45	112	90	22	22	67	22	515
31	45	90	45	112	90	22	22	67	22	515
32	45	90	45	112	90	22	22	67	22	515
33	45	90	45	112	90	22	22	67	22	515
34	45	90	45	112	90	22	22	67	22	515
35	45	90	45	112	90	22	22	67	22	515
36	45	90	45	112	90	22	22	67	22	515
37	45	90	45	112	90	22	22	67	22	515
38	45	90	45	112	90	22	22	67	22	515
39	45	90	45	112	90	22	22	67	22	515
40	45	90	45	112	90	22	22	67	22	515

b. Big Blue Targeted Areas

HUC 12 # 102702050201 Annual Adoption (treated acres), Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption
1	47	94	47	118	94	24	24	71	24	543
2	47	94	47	118	94	24	24	71	24	543
3	47	94	47	118	94	24	24	71	24	543
4	47	94	47	118	94	24	24	71	24	543
5	47	94	47	118	94	24	24	71	24	543
6	47	94	47	118	94	24	24	71	24	543
7	47	94	47	118	94	24	24	71	24	543
8	47	94	47	118	94	24	24	71	24	543
9	47	94	47	118	94	24	24	71	24	543
10	47	94	47	118	94	24	24	71	24	543
11	47	94	47	118	94	24	24	71	24	543
12	47	94	47	118	94	24	24	71	24	543
13	47	94	47	118	94	24	24	71	24	543
14	47	94	47	118	94	24	24	71	24	543
15	47	94	47	118	94	24	24	71	24	543
16	47	94	47	118	94	24	24	71	24	543
17	47	94	47	118	94	24	24	71	24	543
18	47	94	47	118	94	24	24	71	24	543
19	47	94	47	118	94	24	24	71	24	543
20	47	94	47	118	94	24	24	71	24	543
21	47	94	47	118	94	24	24	71	24	543
22	47	94	47	118	94	24	24	71	24	543
23	47	94	47	118	94	24	24	71	24	543
24	47	94	47	118	94	24	24	71	24	543
25	47	94	47	118	94	24	24	71	24	543
26	47	94	47	118	94	24	24	71	24	543
27	47	94	47	118	94	24	24	71	24	543
28	47	94	47	118	94	24	24	71	24	543
29	47	94	47	118	94	24	24	71	24	543
30	47	94	47	118	94	24	24	71	24	543
31	47	94	47	118	94	24	24	71	24	543
32	47	94	47	118	94	24	24	71	24	543
33	47	94	47	118	94	24	24	71	24	543
34	47	94	47	118	94	24	24	71	24	543
35	47	94	47	118	94	24	24	71	24	543
36	47	94	47	118	94	24	24	71	24	543
37	47	94	47	118	94	24	24	71	24	543
38	47	94	47	118	94	24	24	71	24	543
39	47	94	47	118	94	24	24	71	24	543
40	47	94	47	118	94	24	24	71	24	543

HUC 12 # 102702050204 Annual Adoption (treated acres), Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption
1	44	87	44	109	87	22	22	65	22	501
2	44	87	44	109	87	22	22	65	22	501
3	44	87	44	109	87	22	22	65	22	501
4	44	87	44	109	87	22	22	65	22	501
5	44	87	44	109	87	22	22	65	22	501
6	44	87	44	109	87	22	22	65	22	501
7	44	87	44	109	87	22	22	65	22	501
8	44	87	44	109	87	22	22	65	22	501
9	44	87	44	109	87	22	22	65	22	501
10	44	87	44	109	87	22	22	65	22	501
11	44	87	44	109	87	22	22	65	22	501
12	44	87	44	109	87	22	22	65	22	501
13	44	87	44	109	87	22	22	65	22	501
14	44	87	44	109	87	22	22	65	22	501
15	44	87	44	109	87	22	22	65	22	501
16	44	87	44	109	87	22	22	65	22	501
17	44	87	44	109	87	22	22	65	22	501
18	44	87	44	109	87	22	22	65	22	501
19	44	87	44	109	87	22	22	65	22	501
20	44	87	44	109	87	22	22	65	22	501
21	44	87	44	109	87	22	22	65	22	501
22	44	87	44	109	87	22	22	65	22	501
23	44	87	44	109	87	22	22	65	22	501
24	44	87	44	109	87	22	22	65	22	501
25	44	87	44	109	87	22	22	65	22	501
26	44	87	44	109	87	22	22	65	22	501
27	44	87	44	109	87	22	22	65	22	501
28	44	87	44	109	87	22	22	65	22	501
29	44	87	44	109	87	22	22	65	22	501
30	44	87	44	109	87	22	22	65	22	501
31	44	87	44	109	87	22	22	65	22	501
32	44	87	44	109	87	22	22	65	22	501
33	44	87	44	109	87	22	22	65	22	501
34	44	87	44	109	87	22	22	65	22	501
35	44	87	44	109	87	22	22	65	22	501
36	44	87	44	109	87	22	22	65	22	501
37	44	87	44	109	87	22	22	65	22	501
38	44	87	44	109	87	22	22	65	22	501
39	44	87	44	109	87	22	22	65	22	501
40	44	87	44	109	87	22	22	65	22	501

HUC 12 # 102702050301 Annual Adoption (treated acres), Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption
1	74	148	74	185	148	37	37	111	37	850
2	74	148	74	185	148	37	37	111	37	850
3	74	148	74	185	148	37	37	111	37	850
4	74	148	74	185	148	37	37	111	37	850
5	74	148	74	185	148	37	37	111	37	850
6	74	148	74	185	148	37	37	111	37	850
7	74	148	74	185	148	37	37	111	37	850
8	74	148	74	185	148	37	37	111	37	850
9	74	148	74	185	148	37	37	111	37	850
10	74	148	74	185	148	37	37	111	37	850
11	74	148	74	185	148	37	37	111	37	850
12	74	148	74	185	148	37	37	111	37	850
13	74	148	74	185	148	37	37	111	37	850
14	74	148	74	185	148	37	37	111	37	850
15	74	148	74	185	148	37	37	111	37	850
16	74	148	74	185	148	37	37	111	37	850
17	74	148	74	185	148	37	37	111	37	850
18	74	148	74	185	148	37	37	111	37	850
19	74	148	74	185	148	37	37	111	37	850
20	74	148	74	185	148	37	37	111	37	850
21	74	148	74	185	148	37	37	111	37	850
22	74	148	74	185	148	37	37	111	37	850
23	74	148	74	185	148	37	37	111	37	850
24	74	148	74	185	148	37	37	111	37	850
25	74	148	74	185	148	37	37	111	37	850
26	74	148	74	185	148	37	37	111	37	850
27	74	148	74	185	148	37	37	111	37	850
28	74	148	74	185	148	37	37	111	37	850
29	74	148	74	185	148	37	37	111	37	850
30	74	148	74	185	148	37	37	111	37	850
31	74	148	74	185	148	37	37	111	37	850
32	74	148	74	185	148	37	37	111	37	850
33	74	148	74	185	148	37	37	111	37	850
34	74	148	74	185	148	37	37	111	37	850
35	74	148	74	185	148	37	37	111	37	850
36	74	148	74	185	148	37	37	111	37	850
37	74	148	74	185	148	37	37	111	37	850
38	74	148	74	185	148	37	37	111	37	850
39	74	148	74	185	148	37	37	111	37	850
40	74	148	74	185	148	37	37	111	37	850

HUC 12 # 102702050302 Annual Adoption (treated acres), Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption
1	71	143	71	178	143	36	36	107	36	820
2	71	143	71	178	143	36	36	107	36	820
3	71	143	71	178	143	36	36	107	36	820
4	71	143	71	178	143	36	36	107	36	820
5	71	143	71	178	143	36	36	107	36	820
6	71	143	71	178	143	36	36	107	36	820
7	71	143	71	178	143	36	36	107	36	820
8	71	143	71	178	143	36	36	107	36	820
9	71	143	71	178	143	36	36	107	36	820
10	71	143	71	178	143	36	36	107	36	820
11	71	143	71	178	143	36	36	107	36	820
12	71	143	71	178	143	36	36	107	36	820
13	71	143	71	178	143	36	36	107	36	820
14	71	143	71	178	143	36	36	107	36	820
15	71	143	71	178	143	36	36	107	36	820
16	71	143	71	178	143	36	36	107	36	820
17	71	143	71	178	143	36	36	107	36	820
18	71	143	71	178	143	36	36	107	36	820
19	71	143	71	178	143	36	36	107	36	820
20	71	143	71	178	143	36	36	107	36	820
21	71	143	71	178	143	36	36	107	36	820
22	71	143	71	178	143	36	36	107	36	820
23	71	143	71	178	143	36	36	107	36	820
24	71	143	71	178	143	36	36	107	36	820
25	71	143	71	178	143	36	36	107	36	820
26	71	143	71	178	143	36	36	107	36	820
27	71	143	71	178	143	36	36	107	36	820
28	71	143	71	178	143	36	36	107	36	820
29	71	143	71	178	143	36	36	107	36	820
30	71	143	71	178	143	36	36	107	36	820
31	71	143	71	178	143	36	36	107	36	820
32	71	143	71	178	143	36	36	107	36	820
33	71	143	71	178	143	36	36	107	36	820
34	71	143	71	178	143	36	36	107	36	820
35	71	143	71	178	143	36	36	107	36	820
36	71	143	71	178	143	36	36	107	36	820
37	71	143	71	178	143	36	36	107	36	820
38	71	143	71	178	143	36	36	107	36	820
39	71	143	71	178	143	36	36	107	36	820
40	71	143	71	178	143	36	36	107	36	820

HUC 12 # 102702050306 Annual Adoption (treated acres), Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption
1	35	71	35	88	71	18	18	53	18	406
2	35	71	35	88	71	18	18	53	18	406
3	35	71	35	88	71	18	18	53	18	406
4	35	71	35	88	71	18	18	53	18	406
5	35	71	35	88	71	18	18	53	18	406
6	35	71	35	88	71	18	18	53	18	406
7	35	71	35	88	71	18	18	53	18	406
8	35	71	35	88	71	18	18	53	18	406
9	35	71	35	88	71	18	18	53	18	406
10	35	71	35	88	71	18	18	53	18	406
11	35	71	35	88	71	18	18	53	18	406
12	35	71	35	88	71	18	18	53	18	406
13	35	71	35	88	71	18	18	53	18	406
14	35	71	35	88	71	18	18	53	18	406
15	35	71	35	88	71	18	18	53	18	406
16	35	71	35	88	71	18	18	53	18	406
17	35	71	35	88	71	18	18	53	18	406
18	35	71	35	88	71	18	18	53	18	406
19	35	71	35	88	71	18	18	53	18	406
20	35	71	35	88	71	18	18	53	18	406
21	35	71	35	88	71	18	18	53	18	406
22	35	71	35	88	71	18	18	53	18	406
23	35	71	35	88	71	18	18	53	18	406
24	35	71	35	88	71	18	18	53	18	406
25	35	71	35	88	71	18	18	53	18	406
26	35	71	35	88	71	18	18	53	18	406
27	35	71	35	88	71	18	18	53	18	406
28	35	71	35	88	71	18	18	53	18	406
29	35	71	35	88	71	18	18	53	18	406
30	35	71	35	88	71	18	18	53	18	406
31	35	71	35	88	71	18	18	53	18	406
32	35	71	35	88	71	18	18	53	18	406
33	35	71	35	88	71	18	18	53	18	406
34	35	71	35	88	71	18	18	53	18	406
35	35	71	35	88	71	18	18	53	18	406
36	35	71	35	88	71	18	18	53	18	406
37	35	71	35	88	71	18	18	53	18	406
38	35	71	35	88	71	18	18	53	18	406
39	35	71	35	88	71	18	18	53	18	406
40	35	71	35	88	71	18	18	53	18	406

HUC 12 # 102702050401 Annual Adoption (treated acres), Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption
1	55	111	55	138	111	28	28	83	28	636
2	55	111	55	138	111	28	28	83	28	636
3	55	111	55	138	111	28	28	83	28	636
4	55	111	55	138	111	28	28	83	28	636
5	55	111	55	138	111	28	28	83	28	636
6	55	111	55	138	111	28	28	83	28	636
7	55	111	55	138	111	28	28	83	28	636
8	55	111	55	138	111	28	28	83	28	636
9	55	111	55	138	111	28	28	83	28	636
10	55	111	55	138	111	28	28	83	28	636
11	55	111	55	138	111	28	28	83	28	636
12	55	111	55	138	111	28	28	83	28	636
13	55	111	55	138	111	28	28	83	28	636
14	55	111	55	138	111	28	28	83	28	636
15	55	111	55	138	111	28	28	83	28	636
16	55	111	55	138	111	28	28	83	28	636
17	55	111	55	138	111	28	28	83	28	636
18	55	111	55	138	111	28	28	83	28	636
19	55	111	55	138	111	28	28	83	28	636
20	55	111	55	138	111	28	28	83	28	636
21	55	111	55	138	111	28	28	83	28	636
22	55	111	55	138	111	28	28	83	28	636
23	55	111	55	138	111	28	28	83	28	636
24	55	111	55	138	111	28	28	83	28	636
25	55	111	55	138	111	28	28	83	28	636
26	55	111	55	138	111	28	28	83	28	636
27	55	111	55	138	111	28	28	83	28	636
28	55	111	55	138	111	28	28	83	28	636
29	55	111	55	138	111	28	28	83	28	636
30	55	111	55	138	111	28	28	83	28	636
31	55	111	55	138	111	28	28	83	28	636
32	55	111	55	138	111	28	28	83	28	636
33	55	111	55	138	111	28	28	83	28	636
34	55	111	55	138	111	28	28	83	28	636
35	55	111	55	138	111	28	28	83	28	636
36	55	111	55	138	111	28	28	83	28	636
37	55	111	55	138	111	28	28	83	28	636
38	55	111	55	138	111	28	28	83	28	636
39	55	111	55	138	111	28	28	83	28	636
40	55	111	55	138	111	28	28	83	28	636

HUC 12 # 102702050402 Annual Adoption (treated acres), Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption
1	27	54	27	67	54	13	13	40	13	308
2	27	54	27	67	54	13	13	40	13	308
3	27	54	27	67	54	13	13	40	13	308
4	27	54	27	67	54	13	13	40	13	308
5	27	54	27	67	54	13	13	40	13	308
6	27	54	27	67	54	13	13	40	13	308
7	27	54	27	67	54	13	13	40	13	308
8	27	54	27	67	54	13	13	40	13	308
9	27	54	27	67	54	13	13	40	13	308
10	27	54	27	67	54	13	13	40	13	308
11	27	54	27	67	54	13	13	40	13	308
12	27	54	27	67	54	13	13	40	13	308
13	27	54	27	67	54	13	13	40	13	308
14	27	54	27	67	54	13	13	40	13	308
15	27	54	27	67	54	13	13	40	13	308
16	27	54	27	67	54	13	13	40	13	308
17	27	54	27	67	54	13	13	40	13	308
18	27	54	27	67	54	13	13	40	13	308
19	27	54	27	67	54	13	13	40	13	308
20	27	54	27	67	54	13	13	40	13	308
21	27	54	27	67	54	13	13	40	13	308
22	27	54	27	67	54	13	13	40	13	308
23	27	54	27	67	54	13	13	40	13	308
24	27	54	27	67	54	13	13	40	13	308
25	27	54	27	67	54	13	13	40	13	308
26	27	54	27	67	54	13	13	40	13	308
27	27	54	27	67	54	13	13	40	13	308
28	27	54	27	67	54	13	13	40	13	308
29	27	54	27	67	54	13	13	40	13	308
30	27	54	27	67	54	13	13	40	13	308
31	27	54	27	67	54	13	13	40	13	308
32	27	54	27	67	54	13	13	40	13	308
33	27	54	27	67	54	13	13	40	13	308
34	27	54	27	67	54	13	13	40	13	308
35	27	54	27	67	54	13	13	40	13	308
36	27	54	27	67	54	13	13	40	13	308
37	27	54	27	67	54	13	13	40	13	308
38	27	54	27	67	54	13	13	40	13	308
39	27	54	27	67	54	13	13	40	13	308
40	27	54	27	67	54	13	13	40	13	308

HUC 12 # 102702050403 Annual Adoption (treated acres), Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption
1	33	65	33	81	65	16	16	49	16	374
2	33	65	33	81	65	16	16	49	16	374
3	33	65	33	81	65	16	16	49	16	374
4	33	65	33	81	65	16	16	49	16	374
5	33	65	33	81	65	16	16	49	16	374
6	33	65	33	81	65	16	16	49	16	374
7	33	65	33	81	65	16	16	49	16	374
8	33	65	33	81	65	16	16	49	16	374
9	33	65	33	81	65	16	16	49	16	374
10	33	65	33	81	65	16	16	49	16	374
11	33	65	33	81	65	16	16	49	16	374
12	33	65	33	81	65	16	16	49	16	374
13	33	65	33	81	65	16	16	49	16	374
14	33	65	33	81	65	16	16	49	16	374
15	33	65	33	81	65	16	16	49	16	374
16	33	65	33	81	65	16	16	49	16	374
17	33	65	33	81	65	16	16	49	16	374
18	33	65	33	81	65	16	16	49	16	374
19	33	65	33	81	65	16	16	49	16	374
20	33	65	33	81	65	16	16	49	16	374
21	33	65	33	81	65	16	16	49	16	374
22	33	65	33	81	65	16	16	49	16	374
23	33	65	33	81	65	16	16	49	16	374
24	33	65	33	81	65	16	16	49	16	374
25	33	65	33	81	65	16	16	49	16	374
26	33	65	33	81	65	16	16	49	16	374
27	33	65	33	81	65	16	16	49	16	374
28	33	65	33	81	65	16	16	49	16	374
29	33	65	33	81	65	16	16	49	16	374
30	33	65	33	81	65	16	16	49	16	374
31	33	65	33	81	65	16	16	49	16	374
32	33	65	33	81	65	16	16	49	16	374
33	33	65	33	81	65	16	16	49	16	374
34	33	65	33	81	65	16	16	49	16	374
35	33	65	33	81	65	16	16	49	16	374
36	33	65	33	81	65	16	16	49	16	374
37	33	65	33	81	65	16	16	49	16	374
38	33	65	33	81	65	16	16	49	16	374
39	33	65	33	81	65	16	16	49	16	374
40	33	65	33	81	65	16	16	49	16	374

HUC 12 # 102702050501 Annual Adoption (treated acres), Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption
1	65	129	65	162	129	32	32	97	32	745
2	65	129	65	162	129	32	32	97	32	745
3	65	129	65	162	129	32	32	97	32	745
4	65	129	65	162	129	32	32	97	32	745
5	65	129	65	162	129	32	32	97	32	745
6	65	129	65	162	129	32	32	97	32	745
7	65	129	65	162	129	32	32	97	32	745
8	65	129	65	162	129	32	32	97	32	745
9	65	129	65	162	129	32	32	97	32	745
10	65	129	65	162	129	32	32	97	32	745
11	65	129	65	162	129	32	32	97	32	745
12	65	129	65	162	129	32	32	97	32	745
13	65	129	65	162	129	32	32	97	32	745
14	65	129	65	162	129	32	32	97	32	745
15	65	129	65	162	129	32	32	97	32	745
16	65	129	65	162	129	32	32	97	32	745
17	65	129	65	162	129	32	32	97	32	745
18	65	129	65	162	129	32	32	97	32	745
19	65	129	65	162	129	32	32	97	32	745
20	65	129	65	162	129	32	32	97	32	745
21	65	129	65	162	129	32	32	97	32	745
22	65	129	65	162	129	32	32	97	32	745
23	65	129	65	162	129	32	32	97	32	745
24	65	129	65	162	129	32	32	97	32	745
25	65	129	65	162	129	32	32	97	32	745
26	65	129	65	162	129	32	32	97	32	745
27	65	129	65	162	129	32	32	97	32	745
28	65	129	65	162	129	32	32	97	32	745
29	65	129	65	162	129	32	32	97	32	745
30	65	129	65	162	129	32	32	97	32	745
31	65	129	65	162	129	32	32	97	32	745
32	65	129	65	162	129	32	32	97	32	745
33	65	129	65	162	129	32	32	97	32	745
34	65	129	65	162	129	32	32	97	32	745
35	65	129	65	162	129	32	32	97	32	745
36	65	129	65	162	129	32	32	97	32	745
37	65	129	65	162	129	32	32	97	32	745
38	65	129	65	162	129	32	32	97	32	745
39	65	129	65	162	129	32	32	97	32	745
40	65	129	65	162	129	32	32	97	32	745

c. Mainstem Targeted Areas plus Riparian Corridors

HUC 12 # 102702050406 Annual Adoption (treated acres), Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption
1	37	74	37	92	74	18	18	55	18	425
2	37	74	37	92	74	18	18	55	18	425
3	37	74	37	92	74	18	18	55	18	425
4	37	74	37	92	74	18	18	55	18	425
5	37	74	37	92	74	18	18	55	18	425
6	37	74	37	92	74	18	18	55	18	425
7	37	74	37	92	74	18	18	55	18	425
8	37	74	37	92	74	18	18	55	18	425
9	37	74	37	92	74	18	18	55	18	425
10	37	74	37	92	74	18	18	55	18	425
11	37	74	37	92	74	18	18	55	18	425
12	37	74	37	92	74	18	18	55	18	425
13	37	74	37	92	74	18	18	55	18	425
14	37	74	37	92	74	18	18	55	18	425
15	37	74	37	92	74	18	18	55	18	425
16	37	74	37	92	74	18	18	55	18	425
17	37	74	37	92	74	18	18	55	18	425
18	37	74	37	92	74	18	18	55	18	425
19	37	74	37	92	74	18	18	55	18	425
20	37	74	37	92	74	18	18	55	18	425
21	37	74	37	92	74	18	18	55	18	425
22	37	74	37	92	74	18	18	55	18	425
23	37	74	37	92	74	18	18	55	18	425
24	37	74	37	92	74	18	18	55	18	425
25	37	74	37	92	74	18	18	55	18	425
26	37	74	37	92	74	18	18	55	18	425
27	37	74	37	92	74	18	18	55	18	425
28	37	74	37	92	74	18	18	55	18	425
29	37	74	37	92	74	18	18	55	18	425
30	37	74	37	92	74	18	18	55	18	425
31	37	74	37	92	74	18	18	55	18	425
32	37	74	37	92	74	18	18	55	18	425
33	37	74	37	92	74	18	18	55	18	425
34	37	74	37	92	74	18	18	55	18	425
35	37	74	37	92	74	18	18	55	18	425
36	37	74	37	92	74	18	18	55	18	425
37	37	74	37	92	74	18	18	55	18	425
38	37	74	37	92	74	18	18	55	18	425
39	37	74	37	92	74	18	18	55	18	425
40	37	74	37	92	74	18	18	55	18	425

HUC 12 # 102702050502 Annual Adoption (treated acres), Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption
1	42	83	42	104	83	21	21	62	21	477
2	42	83	42	104	83	21	21	62	21	477
3	42	83	42	104	83	21	21	62	21	477
4	42	83	42	104	83	21	21	62	21	477
5	42	83	42	104	83	21	21	62	21	477
6	42	83	42	104	83	21	21	62	21	477
7	42	83	42	104	83	21	21	62	21	477
8	42	83	42	104	83	21	21	62	21	477
9	42	83	42	104	83	21	21	62	21	477
10	42	83	42	104	83	21	21	62	21	477
11	42	83	42	104	83	21	21	62	21	477
12	42	83	42	104	83	21	21	62	21	477
13	42	83	42	104	83	21	21	62	21	477
14	42	83	42	104	83	21	21	62	21	477
15	42	83	42	104	83	21	21	62	21	477
16	42	83	42	104	83	21	21	62	21	477
17	42	83	42	104	83	21	21	62	21	477
18	42	83	42	104	83	21	21	62	21	477
19	42	83	42	104	83	21	21	62	21	477
20	42	83	42	104	83	21	21	62	21	477
21	42	83	42	104	83	21	21	62	21	477
22	42	83	42	104	83	21	21	62	21	477
23	42	83	42	104	83	21	21	62	21	477
24	42	83	42	104	83	21	21	62	21	477
25	42	83	42	104	83	21	21	62	21	477
26	42	83	42	104	83	21	21	62	21	477
27	42	83	42	104	83	21	21	62	21	477
28	42	83	42	104	83	21	21	62	21	477
29	42	83	42	104	83	21	21	62	21	477
30	42	83	42	104	83	21	21	62	21	477
31	42	83	42	104	83	21	21	62	21	477
32	42	83	42	104	83	21	21	62	21	477
33	42	83	42	104	83	21	21	62	21	477
34	42	83	42	104	83	21	21	62	21	477
35	42	83	42	104	83	21	21	62	21	477
36	42	83	42	104	83	21	21	62	21	477
37	42	83	42	104	83	21	21	62	21	477
38	42	83	42	104	83	21	21	62	21	477
39	42	83	42	104	83	21	21	62	21	477
40	42	83	42	104	83	21	21	62	21	477

HUC 12 # 102702050503 Annual Adoption (treated acres), Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption
1	37	74	37	92	74	18	18	55	18	425
2	37	74	37	92	74	18	18	55	18	425
3	37	74	37	92	74	18	18	55	18	425
4	37	74	37	92	74	18	18	55	18	425
5	37	74	37	92	74	18	18	55	18	425
6	37	74	37	92	74	18	18	55	18	425
7	37	74	37	92	74	18	18	55	18	425
8	37	74	37	92	74	18	18	55	18	425
9	37	74	37	92	74	18	18	55	18	425
10	37	74	37	92	74	18	18	55	18	425
11	37	74	37	92	74	18	18	55	18	425
12	37	74	37	92	74	18	18	55	18	425
13	37	74	37	92	74	18	18	55	18	425
14	37	74	37	92	74	18	18	55	18	425
15	37	74	37	92	74	18	18	55	18	425
16	37	74	37	92	74	18	18	55	18	425
17	37	74	37	92	74	18	18	55	18	425
18	37	74	37	92	74	18	18	55	18	425
19	37	74	37	92	74	18	18	55	18	425
20	37	74	37	92	74	18	18	55	18	425
21	37	74	37	92	74	18	18	55	18	425
22	37	74	37	92	74	18	18	55	18	425
23	37	74	37	92	74	18	18	55	18	425
24	37	74	37	92	74	18	18	55	18	425
25	37	74	37	92	74	18	18	55	18	425
26	37	74	37	92	74	18	18	55	18	425
27	37	74	37	92	74	18	18	55	18	425
28	37	74	37	92	74	18	18	55	18	425
29	37	74	37	92	74	18	18	55	18	425
30	37	74	37	92	74	18	18	55	18	425
31	37	74	37	92	74	18	18	55	18	425
32	37	74	37	92	74	18	18	55	18	425
33	37	74	37	92	74	18	18	55	18	425
34	37	74	37	92	74	18	18	55	18	425
35	37	74	37	92	74	18	18	55	18	425
36	37	74	37	92	74	18	18	55	18	425
37	37	74	37	92	74	18	18	55	18	425
38	37	74	37	92	74	18	18	55	18	425
39	37	74	37	92	74	18	18	55	18	425
40	37	74	37	92	74	18	18	55	18	425

HUC 12 # 102702050505 Annual Adoption (treated acres), Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption
1	27	54	27	67	54	13	13	40	13	308
2	27	54	27	67	54	13	13	40	13	308
3	27	54	27	67	54	13	13	40	13	308
4	27	54	27	67	54	13	13	40	13	308
5	27	54	27	67	54	13	13	40	13	308
6	27	54	27	67	54	13	13	40	13	308
7	27	54	27	67	54	13	13	40	13	308
8	27	54	27	67	54	13	13	40	13	308
9	27	54	27	67	54	13	13	40	13	308
10	27	54	27	67	54	13	13	40	13	308
11	27	54	27	67	54	13	13	40	13	308
12	27	54	27	67	54	13	13	40	13	308
13	27	54	27	67	54	13	13	40	13	308
14	27	54	27	67	54	13	13	40	13	308
15	27	54	27	67	54	13	13	40	13	308
16	27	54	27	67	54	13	13	40	13	308
17	27	54	27	67	54	13	13	40	13	308
18	27	54	27	67	54	13	13	40	13	308
19	27	54	27	67	54	13	13	40	13	308
20	27	54	27	67	54	13	13	40	13	308
21	27	54	27	67	54	13	13	40	13	308
22	27	54	27	67	54	13	13	40	13	308
23	27	54	27	67	54	13	13	40	13	308
24	27	54	27	67	54	13	13	40	13	308
25	27	54	27	67	54	13	13	40	13	308
26	27	54	27	67	54	13	13	40	13	308
27	27	54	27	67	54	13	13	40	13	308
28	27	54	27	67	54	13	13	40	13	308
29	27	54	27	67	54	13	13	40	13	308
30	27	54	27	67	54	13	13	40	13	308
31	27	54	27	67	54	13	13	40	13	308
32	27	54	27	67	54	13	13	40	13	308
33	27	54	27	67	54	13	13	40	13	308
34	27	54	27	67	54	13	13	40	13	308
35	27	54	27	67	54	13	13	40	13	308
36	27	54	27	67	54	13	13	40	13	308
37	27	54	27	67	54	13	13	40	13	308
38	27	54	27	67	54	13	13	40	13	308
39	27	54	27	67	54	13	13	40	13	308
40	27	54	27	67	54	13	13	40	13	308

HUC 12 # 102702050506 Annual Adoption (treated acres), Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption
1	18	35	18	44	35	9	9	26	9	203
2	18	35	18	44	35	9	9	26	9	203
3	18	35	18	44	35	9	9	26	9	203
4	18	35	18	44	35	9	9	26	9	203
5	18	35	18	44	35	9	9	26	9	203
6	18	35	18	44	35	9	9	26	9	203
7	18	35	18	44	35	9	9	26	9	203
8	18	35	18	44	35	9	9	26	9	203
9	18	35	18	44	35	9	9	26	9	203
10	18	35	18	44	35	9	9	26	9	203
11	18	35	18	44	35	9	9	26	9	203
12	18	35	18	44	35	9	9	26	9	203
13	18	35	18	44	35	9	9	26	9	203
14	18	35	18	44	35	9	9	26	9	203
15	18	35	18	44	35	9	9	26	9	203
16	18	35	18	44	35	9	9	26	9	203
17	18	35	18	44	35	9	9	26	9	203
18	18	35	18	44	35	9	9	26	9	203
19	18	35	18	44	35	9	9	26	9	203
20	18	35	18	44	35	9	9	26	9	203
21	18	35	18	44	35	9	9	26	9	203
22	18	35	18	44	35	9	9	26	9	203
23	18	35	18	44	35	9	9	26	9	203
24	18	35	18	44	35	9	9	26	9	203
25	18	35	18	44	35	9	9	26	9	203
26	18	35	18	44	35	9	9	26	9	203
27	18	35	18	44	35	9	9	26	9	203
28	18	35	18	44	35	9	9	26	9	203
29	18	35	18	44	35	9	9	26	9	203
30	18	35	18	44	35	9	9	26	9	203
31	18	35	18	44	35	9	9	26	9	203
32	18	35	18	44	35	9	9	26	9	203
33	18	35	18	44	35	9	9	26	9	203
34	18	35	18	44	35	9	9	26	9	203
35	18	35	18	44	35	9	9	26	9	203
36	18	35	18	44	35	9	9	26	9	203
37	18	35	18	44	35	9	9	26	9	203
38	18	35	18	44	35	9	9	26	9	203
39	18	35	18	44	35	9	9	26	9	203
40	18	35	18	44	35	9	9	26	9	203

Riparian Areas Annual Adoption (treated acres), Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption
1	66	132	66	165	132	33	33	99	33	760
2	66	132	66	165	132	33	33	99	33	760
3	66	132	66	165	132	33	33	99	33	760
4	66	132	66	165	132	33	33	99	33	760
5	66	132	66	165	132	33	33	99	33	760
6	66	132	66	165	132	33	33	99	33	760
7	66	132	66	165	132	33	33	99	33	760
8	66	132	66	165	132	33	33	99	33	760
9	66	132	66	165	132	33	33	99	33	760
10	66	132	66	165	132	33	33	99	33	760
11	66	132	66	165	132	33	33	99	33	760
12	66	132	66	165	132	33	33	99	33	760
13	66	132	66	165	132	33	33	99	33	760
14	66	132	66	165	132	33	33	99	33	760
15	66	132	66	165	132	33	33	99	33	760
16	66	132	66	165	132	33	33	99	33	760
17	66	132	66	165	132	33	33	99	33	760
18	66	132	66	165	132	33	33	99	33	760
19	66	132	66	165	132	33	33	99	33	760
20	66	132	66	165	132	33	33	99	33	760
21	66	132	66	165	132	33	33	99	33	760
22	66	132	66	165	132	33	33	99	33	760
23	66	132	66	165	132	33	33	99	33	760
24	66	132	66	165	132	33	33	99	33	760
25	66	132	66	165	132	33	33	99	33	760
26	66	132	66	165	132	33	33	99	33	760
27	66	132	66	165	132	33	33	99	33	760
28	66	132	66	165	132	33	33	99	33	760
29	66	132	66	165	132	33	33	99	33	760
30	66	132	66	165	132	33	33	99	33	760
31	66	132	66	165	132	33	33	99	33	760
32	66	132	66	165	132	33	33	99	33	760
33	66	132	66	165	132	33	33	99	33	760
34	66	132	66	165	132	33	33	99	33	760
35	66	132	66	165	132	33	33	99	33	760
36	66	132	66	165	132	33	33	99	33	760
37	66	132	66	165	132	33	33	99	33	760
38	66	132	66	165	132	33	33	99	33	760
39	66	132	66	165	132	33	33	99	33	760
40	66	132	66	165	132	33	33	99	33	760

2. Cropland Load Reduction Tables by Sub-Watershed/Targeted Area: Sediment

a. Little Blue Targeted Areas

HUC 12 # 102702070505 Annual Soil Erosion Reduction, Cropland BMPs (tons)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	45	72	36	168	45	43	0	40	22	319
2	90	144	72	337	90	85	0	81	45	637
3	135	215	108	505	135	128	0	121	67	956
4	179	287	144	673	179	170	0	162	90	1,274
5	224	359	179	841	224	213	0	202	112	1,593
6	269	431	215	1,010	269	256	0	242	135	1,911
7	314	503	251	1,178	314	298	0	283	157	2,230
8	359	574	287	1,346	359	341	0	323	179	2,548
9	404	646	323	1,514	404	384	0	363	202	2,867
10	449	718	359	1,683	449	426	0	404	224	3,186
11	494	790	395	1,851	494	469	0	444	247	3,504
12	538	861	431	2,019	538	511	0	485	269	3,823
13	583	933	467	2,187	583	554	0	525	292	4,141
14	628	1,005	503	2,356	628	597	0	565	314	4,460
15	673	1,077	538	2,524	673	639	0	606	337	4,778
16	718	1,149	574	2,692	718	682	0	646	359	5,097
17	763	1,220	610	2,860	763	725	0	686	381	5,415
18	808	1,292	646	3,029	808	767	0	727	404	5,734
19	852	1,364	682	3,197	852	810	0	767	426	6,053
20	897	1,436	718	3,365	897	852	0	808	449	6,371
21	942	1,508	754	3,533	942	895	0	848	471	6,690
22	987	1,579	790	3,702	987	938	0	888	494	7,008
23	1,032	1,651	826	3,870	1,032	980	0	929	516	7,327
24	1,077	1,723	861	4,038	1,077	1,023	0	969	538	7,645
25	1,122	1,795	897	4,206	1,122	1,066	0	1,010	561	7,964
26	1,167	1,866	933	4,375	1,167	1,108	0	1,050	583	8,282
27	1,211	1,938	969	4,543	1,211	1,151	0	1,090	606	8,601
28	1,256	2,010	1,005	4,711	1,256	1,193	0	1,131	628	8,920
29	1,301	2,082	1,041	4,879	1,301	1,236	0	1,171	651	9,238
30	1,346	2,154	1,077	5,048	1,346	1,279	0	1,211	673	9,557
31	1,391	2,225	1,113	5,216	1,391	1,321	0	1,252	695	9,875
32	1,436	2,297	1,149	5,384	1,436	1,364	0	1,292	718	10,194
33	1,481	2,369	1,184	5,552	1,481	1,407	0	1,333	740	10,512
34	1,525	2,441	1,220	5,721	1,525	1,449	0	1,373	763	10,831
35	1,570	2,513	1,256	5,889	1,570	1,492	0	1,413	785	11,150
36	1,615	2,584	1,292	6,057	1,615	1,534	0	1,454	808	11,468
37	1,660	2,656	1,328	6,225	1,660	1,577	0	1,494	830	11,787
38	1,705	2,728	1,364	6,394	1,705	1,620	0	1,534	852	12,105
39	1,750	2,800	1,400	6,562	1,750	1,662	0	1,575	875	12,424
40	1,795	2,872	1,436	6,730	1,795	1,705	0	1,615	897	12,742

HUC 12 # 102702070601 Annual Soil Erosion Reduction, Cropland BMPs (tons)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	65	104	52	243	65	62	0	58	32	460
2	130	208	104	486	130	123	0	117	65	921
3	195	311	156	730	195	185	0	175	97	1,381
4	259	415	208	973	259	246	0	233	130	1,842
5	324	519	259	1,216	324	308	0	292	162	2,302
6	389	623	311	1,459	389	370	0	350	195	2,763
7	454	726	363	1,702	454	431	0	409	227	3,223
8	519	830	415	1,946	519	493	0	467	259	3,684
9	584	934	467	2,189	584	555	0	525	292	4,144
10	649	1,038	519	2,432	649	616	0	584	324	4,605
11	713	1,141	571	2,675	713	678	0	642	357	5,065
12	778	1,245	623	2,919	778	739	0	700	389	5,526
13	843	1,349	675	3,162	843	801	0	759	422	5,986
14	908	1,453	726	3,405	908	863	0	817	454	6,447
15	973	1,557	778	3,648	973	924	0	876	486	6,907
16	1,038	1,660	830	3,891	1,038	986	0	934	519	7,368
17	1,103	1,764	882	4,135	1,103	1,047	0	992	551	7,828
18	1,167	1,868	934	4,378	1,167	1,109	0	1,051	584	8,289
19	1,232	1,972	986	4,621	1,232	1,171	0	1,109	616	8,749
20	1,297	2,075	1,038	4,864	1,297	1,232	0	1,167	649	9,210
21	1,362	2,179	1,090	5,107	1,362	1,294	0	1,226	681	9,670
22	1,427	2,283	1,141	5,351	1,427	1,355	0	1,284	713	10,131
23	1,492	2,387	1,193	5,594	1,492	1,417	0	1,343	746	10,591
24	1,557	2,490	1,245	5,837	1,557	1,479	0	1,401	778	11,051
25	1,621	2,594	1,297	6,080	1,621	1,540	0	1,459	811	11,512
26	1,686	2,698	1,349	6,323	1,686	1,602	0	1,518	843	11,972
27	1,751	2,802	1,401	6,567	1,751	1,664	0	1,576	876	12,433
28	1,816	2,906	1,453	6,810	1,816	1,725	0	1,634	908	12,893
29	1,881	3,009	1,505	7,053	1,881	1,787	0	1,693	940	13,354
30	1,946	3,113	1,557	7,296	1,946	1,848	0	1,751	973	13,814
31	2,011	3,217	1,608	7,540	2,011	1,910	0	1,809	1,005	14,275
32	2,075	3,321	1,660	7,783	2,075	1,972	0	1,868	1,038	14,735
33	2,140	3,424	1,712	8,026	2,140	2,033	0	1,926	1,070	15,196
34	2,205	3,528	1,764	8,269	2,205	2,095	0	1,985	1,103	15,656
35	2,270	3,632	1,816	8,512	2,270	2,156	0	2,043	1,135	16,117
36	2,335	3,736	1,868	8,756	2,335	2,218	0	2,101	1,167	16,577
37	2,400	3,839	1,920	8,999	2,400	2,280	0	2,160	1,200	17,038
38	2,465	3,943	1,972	9,242	2,465	2,341	0	2,218	1,232	17,498
39	2,529	4,047	2,024	9,485	2,529	2,403	0	2,276	1,265	17,959
40	2,594	4,151	2,075	9,728	2,594	2,465	0	2,335	1,297	18,419

HUC 12 # 102702070602 Annual Soil Erosion Reduction, Cropland BMPs (tons)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	44	71	36	167	44	42	0	40	22	316
2	89	142	71	333	89	84	0	80	44	631
3	133	213	107	500	133	127	0	120	67	947
4	178	284	142	667	178	169	0	160	89	1,262
5	222	356	178	833	222	211	0	200	111	1,578
6	267	427	213	1,000	267	253	0	240	133	1,894
7	311	498	249	1,167	311	296	0	280	156	2,209
8	356	569	284	1,334	356	338	0	320	178	2,525
9	400	640	320	1,500	400	380	0	360	200	2,841
10	445	711	356	1,667	445	422	0	400	222	3,156
11	489	782	391	1,834	489	465	0	440	244	3,472
12	533	853	427	2,000	533	507	0	480	267	3,787
13	578	925	462	2,167	578	549	0	520	289	4,103
14	622	996	498	2,334	622	591	0	560	311	4,419
15	667	1,067	533	2,500	667	633	0	600	333	4,734
16	711	1,138	569	2,667	711	676	0	640	356	5,050
17	756	1,209	605	2,834	756	718	0	680	378	5,365
18	800	1,280	640	3,001	800	760	0	720	400	5,681
19	845	1,351	676	3,167	845	802	0	760	422	5,997
20	889	1,422	711	3,334	889	845	0	800	445	6,312
21	934	1,494	747	3,501	934	887	0	840	467	6,628
22	978	1,565	782	3,667	978	929	0	880	489	6,944
23	1,022	1,636	818	3,834	1,022	971	0	920	511	7,259
24	1,067	1,707	853	4,001	1,067	1,014	0	960	533	7,575
25	1,111	1,778	889	4,167	1,111	1,056	0	1,000	556	7,890
26	1,156	1,849	925	4,334	1,156	1,098	0	1,040	578	8,206
27	1,200	1,920	960	4,501	1,200	1,140	0	1,080	600	8,522
28	1,245	1,991	996	4,668	1,245	1,182	0	1,120	622	8,837
29	1,289	2,063	1,031	4,834	1,289	1,225	0	1,160	645	9,153
30	1,334	2,134	1,067	5,001	1,334	1,267	0	1,200	667	9,468
31	1,378	2,205	1,102	5,168	1,378	1,309	0	1,240	689	9,784
32	1,422	2,276	1,138	5,334	1,422	1,351	0	1,280	711	10,100
33	1,467	2,347	1,174	5,501	1,467	1,394	0	1,320	733	10,415
34	1,511	2,418	1,209	5,668	1,511	1,436	0	1,360	756	10,731
35	1,556	2,489	1,245	5,834	1,556	1,478	0	1,400	778	11,047
36	1,600	2,560	1,280	6,001	1,600	1,520	0	1,440	800	11,362
37	1,645	2,632	1,316	6,168	1,645	1,563	0	1,480	822	11,678
38	1,689	2,703	1,351	6,335	1,689	1,605	0	1,520	845	11,993
39	1,734	2,774	1,387	6,501	1,734	1,647	0	1,560	867	12,309
40	1,778	2,845	1,422	6,668	1,778	1,689	0	1,600	889	12,625

HUC 12 # 102702070603 Annual Soil Erosion Reduction, Cropland BMPs (tons)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	72	115	58	271	72	69	0	65	36	512
2	144	231	115	541	144	137	0	130	72	1,025
3	216	346	173	812	216	206	0	195	108	1,537
4	289	462	231	1,082	289	274	0	260	144	2,049
5	361	577	289	1,353	361	343	0	325	180	2,562
6	433	693	346	1,624	433	411	0	390	216	3,074
7	505	808	404	1,894	505	480	0	455	253	3,586
8	577	924	462	2,165	577	548	0	520	289	4,099
9	649	1,039	520	2,435	649	617	0	584	325	4,611
10	722	1,155	577	2,706	722	686	0	649	361	5,123
11	794	1,270	635	2,977	794	754	0	714	397	5,636
12	866	1,385	693	3,247	866	823	0	779	433	6,148
13	938	1,501	750	3,518	938	891	0	844	469	6,660
14	1,010	1,616	808	3,788	1,010	960	0	909	505	7,173
15	1,082	1,732	866	4,059	1,082	1,028	0	974	541	7,685
16	1,155	1,847	924	4,330	1,155	1,097	0	1,039	577	8,197
17	1,227	1,963	981	4,600	1,227	1,165	0	1,104	613	8,710
18	1,299	2,078	1,039	4,871	1,299	1,234	0	1,169	649	9,222
19	1,371	2,194	1,097	5,141	1,371	1,302	0	1,234	686	9,734
20	1,443	2,309	1,155	5,412	1,443	1,371	0	1,299	722	10,247
21	1,515	2,425	1,212	5,682	1,515	1,440	0	1,364	758	10,759
22	1,587	2,540	1,270	5,953	1,587	1,508	0	1,429	794	11,271
23	1,660	2,655	1,328	6,224	1,660	1,577	0	1,494	830	11,783
24	1,732	2,771	1,385	6,494	1,732	1,645	0	1,559	866	12,296
25	1,804	2,886	1,443	6,765	1,804	1,714	0	1,624	902	12,808
26	1,876	3,002	1,501	7,035	1,876	1,782	0	1,689	938	13,320
27	1,948	3,117	1,559	7,306	1,948	1,851	0	1,753	974	13,833
28	2,020	3,233	1,616	7,577	2,020	1,919	0	1,818	1,010	14,345
29	2,093	3,348	1,674	7,847	2,093	1,988	0	1,883	1,046	14,857
30	2,165	3,464	1,732	8,118	2,165	2,057	0	1,948	1,082	15,370
31	2,237	3,579	1,790	8,388	2,237	2,125	0	2,013	1,118	15,882
32	2,309	3,695	1,847	8,659	2,309	2,194	0	2,078	1,155	16,394
33	2,381	3,810	1,905	8,930	2,381	2,262	0	2,143	1,191	16,907
34	2,453	3,925	1,963	9,200	2,453	2,331	0	2,208	1,227	17,419
35	2,526	4,041	2,020	9,471	2,526	2,399	0	2,273	1,263	17,931
36	2,598	4,156	2,078	9,741	2,598	2,468	0	2,338	1,299	18,444
37	2,670	4,272	2,136	10,012	2,670	2,536	0	2,403	1,335	18,956
38	2,742	4,387	2,194	10,283	2,742	2,605	0	2,468	1,371	19,468
39	2,814	4,503	2,251	10,553	2,814	2,673	0	2,533	1,407	19,981
40	2,886	4,618	2,309	10,824	2,886	2,742	0	2,598	1,443	20,493

HUC 12 # 102702070606 Annual Soil Erosion Reduction, Cropland BMPs (tons)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	96	153	77	360	96	91	0	86	48	681
2	192	307	153	719	192	182	0	173	96	1,362
3	288	460	230	1,079	288	273	0	259	144	2,043
4	384	614	307	1,439	384	364	0	345	192	2,724
5	480	767	384	1,798	480	456	0	432	240	3,405
6	575	921	460	2,158	575	547	0	518	288	4,086
7	671	1,074	537	2,518	671	638	0	604	336	4,767
8	767	1,228	614	2,877	767	729	0	691	384	5,448
9	863	1,381	691	3,237	863	820	0	777	432	6,129
10	959	1,535	767	3,597	959	911	0	863	480	6,810
11	1,055	1,688	844	3,956	1,055	1,002	0	950	528	7,491
12	1,151	1,842	921	4,316	1,151	1,093	0	1,036	575	8,172
13	1,247	1,995	998	4,676	1,247	1,185	0	1,122	623	8,853
14	1,343	2,148	1,074	5,036	1,343	1,276	0	1,209	671	9,534
15	1,439	2,302	1,151	5,395	1,439	1,367	0	1,295	719	10,215
16	1,535	2,455	1,228	5,755	1,535	1,458	0	1,381	767	10,896
17	1,631	2,609	1,304	6,115	1,631	1,549	0	1,467	815	11,577
18	1,726	2,762	1,381	6,474	1,726	1,640	0	1,554	863	12,258
19	1,822	2,916	1,458	6,834	1,822	1,731	0	1,640	911	12,939
20	1,918	3,069	1,535	7,194	1,918	1,822	0	1,726	959	13,620
21	2,014	3,223	1,611	7,553	2,014	1,914	0	1,813	1,007	14,301
22	2,110	3,376	1,688	7,913	2,110	2,005	0	1,899	1,055	14,982
23	2,206	3,530	1,765	8,273	2,206	2,096	0	1,985	1,103	15,663
24	2,302	3,683	1,842	8,632	2,302	2,187	0	2,072	1,151	16,344
25	2,398	3,837	1,918	8,992	2,398	2,278	0	2,158	1,199	17,025
26	2,494	3,990	1,995	9,352	2,494	2,369	0	2,244	1,247	17,706
27	2,590	4,144	2,072	9,711	2,590	2,460	0	2,331	1,295	18,387
28	2,686	4,297	2,148	10,071	2,686	2,551	0	2,417	1,343	19,068
29	2,782	4,450	2,225	10,431	2,782	2,642	0	2,503	1,391	19,749
30	2,877	4,604	2,302	10,790	2,877	2,734	0	2,590	1,439	20,430
31	2,973	4,757	2,379	11,150	2,973	2,825	0	2,676	1,487	21,111
32	3,069	4,911	2,455	11,510	3,069	2,916	0	2,762	1,535	21,792
33	3,165	5,064	2,532	11,869	3,165	3,007	0	2,849	1,583	22,473
34	3,261	5,218	2,609	12,229	3,261	3,098	0	2,935	1,631	23,154
35	3,357	5,371	2,686	12,589	3,357	3,189	0	3,021	1,679	23,835
36	3,453	5,525	2,762	12,948	3,453	3,280	0	3,108	1,726	24,516
37	3,549	5,678	2,839	13,308	3,549	3,371	0	3,194	1,774	25,197
38	3,645	5,832	2,916	13,668	3,645	3,463	0	3,280	1,822	25,878
39	3,741	5,985	2,993	14,028	3,741	3,554	0	3,367	1,870	26,559
40	3,837	6,139	3,069	14,387	3,837	3,645	0	3,453	1,918	27,240

b. Big Blue Targeted Areas

HUC 12 # 102702050201 Annual Soil Erosion Reduction, Cropland BMPs (tons)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	127	203	102	476	127	121	0	114	64	902
2	254	407	203	953	254	241	0	229	127	1,804
3	381	610	305	1,429	381	362	0	343	191	2,706
4	508	813	407	1,906	508	483	0	457	254	3,608
5	635	1,016	508	2,382	635	603	0	572	318	4,510
6	762	1,220	610	2,859	762	724	0	686	381	5,412
7	889	1,423	711	3,335	889	845	0	800	445	6,315
8	1,016	1,626	813	3,812	1,016	966	0	915	508	7,217
9	1,143	1,830	915	4,288	1,143	1,086	0	1,029	572	8,119
10	1,271	2,033	1,016	4,764	1,271	1,207	0	1,143	635	9,021
11	1,398	2,236	1,118	5,241	1,398	1,328	0	1,258	699	9,923
12	1,525	2,439	1,220	5,717	1,525	1,448	0	1,372	762	10,825
13	1,652	2,643	1,321	6,194	1,652	1,569	0	1,487	826	11,727
14	1,779	2,846	1,423	6,670	1,779	1,690	0	1,601	889	12,629
15	1,906	3,049	1,525	7,147	1,906	1,810	0	1,715	953	13,531
16	2,033	3,253	1,626	7,623	2,033	1,931	0	1,830	1,016	14,433
17	2,160	3,456	1,728	8,100	2,160	2,052	0	1,944	1,080	15,335
18	2,287	3,659	1,830	8,576	2,287	2,173	0	2,058	1,143	16,237
19	2,414	3,862	1,931	9,052	2,414	2,293	0	2,173	1,207	17,139
20	2,541	4,066	2,033	9,529	2,541	2,414	0	2,287	1,271	18,041
21	2,668	4,269	2,134	10,005	2,668	2,535	0	2,401	1,334	18,944
22	2,795	4,472	2,236	10,482	2,795	2,655	0	2,516	1,398	19,846
23	2,922	4,676	2,338	10,958	2,922	2,776	0	2,630	1,461	20,748
24	3,049	4,879	2,439	11,435	3,049	2,897	0	2,744	1,525	21,650
25	3,176	5,082	2,541	11,911	3,176	3,017	0	2,859	1,588	22,552
26	3,303	5,285	2,643	12,388	3,303	3,138	0	2,973	1,652	23,454
27	3,430	5,489	2,744	12,864	3,430	3,259	0	3,087	1,715	24,356
28	3,557	5,692	2,846	13,340	3,557	3,380	0	3,202	1,779	25,258
29	3,685	5,895	2,948	13,817	3,685	3,500	0	3,316	1,842	26,160
30	3,812	6,099	3,049	14,293	3,812	3,621	0	3,430	1,906	27,062
31	3,939	6,302	3,151	14,770	3,939	3,742	0	3,545	1,969	27,964
32	4,066	6,505	3,253	15,246	4,066	3,862	0	3,659	2,033	28,866
33	4,193	6,708	3,354	15,723	4,193	3,983	0	3,773	2,096	29,768
34	4,320	6,912	3,456	16,199	4,320	4,104	0	3,888	2,160	30,670
35	4,447	7,115	3,557	16,676	4,447	4,224	0	4,002	2,223	31,573
36	4,574	7,318	3,659	17,152	4,574	4,345	0	4,116	2,287	32,475
37	4,701	7,521	3,761	17,629	4,701	4,466	0	4,231	2,350	33,377
38	4,828	7,725	3,862	18,105	4,828	4,587	0	4,345	2,414	34,279
39	4,955	7,928	3,964	18,581	4,955	4,707	0	4,460	2,478	35,181
40	5,082	8,131	4,066	19,058	5,082	4,828	0	4,574	2,541	36,083

HUC 12 # 102702050204 Annual Soil Erosion Reduction, Cropland BMPs (tons)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	147	235	117	550	147	139	0	132	73	1,042
2	293	470	235	1,101	293	279	0	264	147	2,084
3	440	704	352	1,651	440	418	0	396	220	3,126
4	587	939	470	2,201	587	558	0	528	293	4,168
5	734	1,174	587	2,751	734	697	0	660	367	5,210
6	880	1,409	704	3,302	880	836	0	792	440	6,251
7	1,027	1,644	822	3,852	1,027	976	0	925	514	7,293
8	1,174	1,878	939	4,402	1,174	1,115	0	1,057	587	8,335
9	1,321	2,113	1,057	4,953	1,321	1,255	0	1,189	660	9,377
10	1,467	2,348	1,174	5,503	1,467	1,394	0	1,321	734	10,419
11	1,614	2,583	1,291	6,053	1,614	1,534	0	1,453	807	11,461
12	1,761	2,818	1,409	6,604	1,761	1,673	0	1,585	880	12,503
13	1,908	3,052	1,526	7,154	1,908	1,812	0	1,717	954	13,545
14	2,054	3,287	1,644	7,704	2,054	1,952	0	1,849	1,027	14,587
15	2,201	3,522	1,761	8,254	2,201	2,091	0	1,981	1,101	15,629
16	2,348	3,757	1,878	8,805	2,348	2,231	0	2,113	1,174	16,670
17	2,495	3,992	1,996	9,355	2,495	2,370	0	2,245	1,247	17,712
18	2,641	4,226	2,113	9,905	2,641	2,509	0	2,377	1,321	18,754
19	2,788	4,461	2,231	10,456	2,788	2,649	0	2,509	1,394	19,796
20	2,935	4,696	2,348	11,006	2,935	2,788	0	2,641	1,467	20,838
21	3,082	4,931	2,465	11,556	3,082	2,928	0	2,774	1,541	21,880
22	3,228	5,165	2,583	12,107	3,228	3,067	0	2,906	1,614	22,922
23	3,375	5,400	2,700	12,657	3,375	3,206	0	3,038	1,688	23,964
24	3,522	5,635	2,818	13,207	3,522	3,346	0	3,170	1,761	25,006
25	3,669	5,870	2,935	13,757	3,669	3,485	0	3,302	1,834	26,048
26	3,815	6,105	3,052	14,308	3,815	3,625	0	3,434	1,908	27,089
27	3,962	6,339	3,170	14,858	3,962	3,764	0	3,566	1,981	28,131
28	4,109	6,574	3,287	15,408	4,109	3,903	0	3,698	2,054	29,173
29	4,256	6,809	3,405	15,959	4,256	4,043	0	3,830	2,128	30,215
30	4,402	7,044	3,522	16,509	4,402	4,182	0	3,962	2,201	31,257
31	4,549	7,279	3,639	17,059	4,549	4,322	0	4,094	2,275	32,299
32	4,696	7,513	3,757	17,610	4,696	4,461	0	4,226	2,348	33,341
33	4,843	7,748	3,874	18,160	4,843	4,601	0	4,358	2,421	34,383
34	4,989	7,983	3,992	18,710	4,989	4,740	0	4,490	2,495	35,425
35	5,136	8,218	4,109	19,260	5,136	4,879	0	4,623	2,568	36,467
36	5,283	8,453	4,226	19,811	5,283	5,019	0	4,755	2,641	37,508
37	5,430	8,687	4,344	20,361	5,430	5,158	0	4,887	2,715	38,550
38	5,576	8,922	4,461	20,911	5,576	5,298	0	5,019	2,788	39,592
39	5,723	9,157	4,578	21,462	5,723	5,437	0	5,151	2,862	40,634
40	5,870	9,392	4,696	22,012	5,870	5,576	0	5,283	2,935	41,676

HUC 12 # 102702050301 Annual Soil Erosion Reduction, Cropland BMPs (tons)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	243	389	194	911	243	231	0	219	121	1,724
2	486	777	389	1,821	486	461	0	437	243	3,448
3	728	1,166	583	2,732	728	692	0	656	364	5,172
4	971	1,554	777	3,642	971	923	0	874	486	6,896
5	1,214	1,943	971	4,553	1,214	1,153	0	1,093	607	8,620
6	1,457	2,331	1,166	5,463	1,457	1,384	0	1,311	728	10,344
7	1,700	2,720	1,360	6,374	1,700	1,615	0	1,530	850	12,068
8	1,943	3,108	1,554	7,285	1,943	1,845	0	1,748	971	13,792
9	2,185	3,497	1,748	8,195	2,185	2,076	0	1,967	1,093	15,516
10	2,428	3,885	1,943	9,106	2,428	2,307	0	2,185	1,214	17,240
11	2,671	4,274	2,137	10,016	2,671	2,537	0	2,404	1,336	18,964
12	2,914	4,662	2,331	10,927	2,914	2,768	0	2,622	1,457	20,688
13	3,157	5,051	2,525	11,837	3,157	2,999	0	2,841	1,578	22,412
14	3,399	5,439	2,720	12,748	3,399	3,229	0	3,060	1,700	24,136
15	3,642	5,828	2,914	13,659	3,642	3,460	0	3,278	1,821	25,860
16	3,885	6,216	3,108	14,569	3,885	3,691	0	3,497	1,943	27,584
17	4,128	6,605	3,302	15,480	4,128	3,922	0	3,715	2,064	29,308
18	4,371	6,993	3,497	16,390	4,371	4,152	0	3,934	2,185	31,032
19	4,614	7,382	3,691	17,301	4,614	4,383	0	4,152	2,307	32,756
20	4,856	7,770	3,885	18,211	4,856	4,614	0	4,371	2,428	34,480
21	5,099	8,159	4,079	19,122	5,099	4,844	0	4,589	2,550	36,204
22	5,342	8,547	4,274	20,033	5,342	5,075	0	4,808	2,671	37,928
23	5,585	8,936	4,468	20,943	5,585	5,306	0	5,026	2,792	39,652
24	5,828	9,324	4,662	21,854	5,828	5,536	0	5,245	2,914	41,376
25	6,070	9,713	4,856	22,764	6,070	5,767	0	5,463	3,035	43,100
26	6,313	10,101	5,051	23,675	6,313	5,998	0	5,682	3,157	44,824
27	6,556	10,490	5,245	24,585	6,556	6,228	0	5,901	3,278	46,548
28	6,799	10,878	5,439	25,496	6,799	6,459	0	6,119	3,399	48,272
29	7,042	11,267	5,633	26,407	7,042	6,690	0	6,338	3,521	49,996
30	7,285	11,655	5,828	27,317	7,285	6,920	0	6,556	3,642	51,720
31	7,527	12,044	6,022	28,228	7,527	7,151	0	6,775	3,764	53,444
32	7,770	12,432	6,216	29,138	7,770	7,382	0	6,993	3,885	55,168
33	8,013	12,821	6,410	30,049	8,013	7,612	0	7,212	4,007	56,892
34	8,256	13,209	6,605	30,959	8,256	7,843	0	7,430	4,128	58,617
35	8,499	13,598	6,799	31,870	8,499	8,074	0	7,649	4,249	60,341
36	8,741	13,986	6,993	32,781	8,741	8,304	0	7,867	4,371	62,065
37	8,984	14,375	7,187	33,691	8,984	8,535	0	8,086	4,492	63,789
38	9,227	14,763	7,382	34,602	9,227	8,766	0	8,304	4,614	65,513
39	9,470	15,152	7,576	35,512	9,470	8,996	0	8,523	4,735	67,237
40	9,713	15,540	7,770	36,423	9,713	9,227	0	8,741	4,856	68,961

HUC 12 # 102702050302 Annual Soil Erosion Reduction, Cropland BMPs (tons)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	234	375	187	878	234	223	0	211	117	1,663
2	468	750	375	1,757	468	445	0	422	234	3,326
3	703	1,124	562	2,635	703	668	0	632	351	4,989
4	937	1,499	750	3,514	937	890	0	843	468	6,653
5	1,171	1,874	937	4,392	1,171	1,113	0	1,054	586	8,316
6	1,405	2,249	1,124	5,271	1,405	1,335	0	1,265	703	9,979
7	1,640	2,624	1,312	6,149	1,640	1,558	0	1,476	820	11,642
8	1,874	2,998	1,499	7,027	1,874	1,780	0	1,687	937	13,305
9	2,108	3,373	1,687	7,906	2,108	2,003	0	1,897	1,054	14,968
10	2,342	3,748	1,874	8,784	2,342	2,225	0	2,108	1,171	16,631
11	2,577	4,123	2,061	9,663	2,577	2,448	0	2,319	1,288	18,295
12	2,811	4,498	2,249	10,541	2,811	2,670	0	2,530	1,405	19,958
13	3,045	4,872	2,436	11,419	3,045	2,893	0	2,741	1,523	21,621
14	3,279	5,247	2,624	12,298	3,279	3,115	0	2,951	1,640	23,284
15	3,514	5,622	2,811	13,176	3,514	3,338	0	3,162	1,757	24,947
16	3,748	5,997	2,998	14,055	3,748	3,561	0	3,373	1,874	26,610
17	3,982	6,371	3,186	14,933	3,982	3,783	0	3,584	1,991	28,273
18	4,216	6,746	3,373	15,812	4,216	4,006	0	3,795	2,108	29,937
19	4,451	7,121	3,561	16,690	4,451	4,228	0	4,006	2,225	31,600
20	4,685	7,496	3,748	17,568	4,685	4,451	0	4,216	2,342	33,263
21	4,919	7,871	3,935	18,447	4,919	4,673	0	4,427	2,460	34,926
22	5,153	8,245	4,123	19,325	5,153	4,896	0	4,638	2,577	36,589
23	5,388	8,620	4,310	20,204	5,388	5,118	0	4,849	2,694	38,252
24	5,622	8,995	4,498	21,082	5,622	5,341	0	5,060	2,811	39,915
25	5,856	9,370	4,685	21,960	5,856	5,563	0	5,271	2,928	41,579
26	6,090	9,745	4,872	22,839	6,090	5,786	0	5,481	3,045	43,242
27	6,325	10,119	5,060	23,717	6,325	6,008	0	5,692	3,162	44,905
28	6,559	10,494	5,247	24,596	6,559	6,231	0	5,903	3,279	46,568
29	6,793	10,869	5,434	25,474	6,793	6,453	0	6,114	3,397	48,231
30	7,027	11,244	5,622	26,353	7,027	6,676	0	6,325	3,514	49,894
31	7,262	11,619	5,809	27,231	7,262	6,899	0	6,535	3,631	51,557
32	7,496	11,993	5,997	28,109	7,496	7,121	0	6,746	3,748	53,220
33	7,730	12,368	6,184	28,988	7,730	7,344	0	6,957	3,865	54,884
34	7,964	12,743	6,371	29,866	7,964	7,566	0	7,168	3,982	56,547
35	8,199	13,118	6,559	30,745	8,199	7,789	0	7,379	4,099	58,210
36	8,433	13,493	6,746	31,623	8,433	8,011	0	7,590	4,216	59,873
37	8,667	13,867	6,934	32,502	8,667	8,234	0	7,800	4,334	61,536
38	8,901	14,242	7,121	33,380	8,901	8,456	0	8,011	4,451	63,199
39	9,136	14,617	7,308	34,258	9,136	8,679	0	8,222	4,568	64,862
40	9,370	14,992	7,496	35,137	9,370	8,901	0	8,433	4,685	66,526

HUC 12 # 102702050306 Annual Soil Erosion Reduction, Cropland BMPs (tons)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	99	159	79	372	99	94	0	89	50	704
2	198	317	159	744	198	188	0	179	99	1,408
3	298	476	238	1,116	298	283	0	268	149	2,112
4	397	635	317	1,488	397	377	0	357	198	2,816
5	496	793	397	1,859	496	471	0	446	248	3,521
6	595	952	476	2,231	595	565	0	536	298	4,225
7	694	1,111	555	2,603	694	659	0	625	347	4,929
8	793	1,269	635	2,975	793	754	0	714	397	5,633
9	893	1,428	714	3,347	893	848	0	803	446	6,337
10	992	1,587	793	3,719	992	942	0	893	496	7,041
11	1,091	1,745	873	4,091	1,091	1,036	0	982	545	7,745
12	1,190	1,904	952	4,463	1,190	1,131	0	1,071	595	8,449
13	1,289	2,063	1,031	4,835	1,289	1,225	0	1,160	645	9,154
14	1,388	2,221	1,111	5,207	1,388	1,319	0	1,250	694	9,858
15	1,488	2,380	1,190	5,578	1,488	1,413	0	1,339	744	10,562
16	1,587	2,539	1,269	5,950	1,587	1,507	0	1,428	793	11,266
17	1,686	2,697	1,349	6,322	1,686	1,602	0	1,517	843	11,970
18	1,785	2,856	1,428	6,694	1,785	1,696	0	1,607	893	12,674
19	1,884	3,015	1,507	7,066	1,884	1,790	0	1,696	942	13,378
20	1,983	3,174	1,587	7,438	1,983	1,884	0	1,785	992	14,082
21	2,083	3,332	1,666	7,810	2,083	1,978	0	1,874	1,041	14,787
22	2,182	3,491	1,745	8,182	2,182	2,073	0	1,964	1,091	15,491
23	2,281	3,650	1,825	8,554	2,281	2,167	0	2,053	1,140	16,195
24	2,380	3,808	1,904	8,925	2,380	2,261	0	2,142	1,190	16,899
25	2,479	3,967	1,983	9,297	2,479	2,355	0	2,231	1,240	17,603
26	2,578	4,126	2,063	9,669	2,578	2,450	0	2,321	1,289	18,307
27	2,678	4,284	2,142	10,041	2,678	2,544	0	2,410	1,339	19,011
28	2,777	4,443	2,221	10,413	2,777	2,638	0	2,499	1,388	19,715
29	2,876	4,602	2,301	10,785	2,876	2,732	0	2,588	1,438	20,419
30	2,975	4,760	2,380	11,157	2,975	2,826	0	2,678	1,488	21,124
31	3,074	4,919	2,459	11,529	3,074	2,921	0	2,767	1,537	21,828
32	3,174	5,078	2,539	11,901	3,174	3,015	0	2,856	1,587	22,532
33	3,273	5,236	2,618	12,273	3,273	3,109	0	2,945	1,636	23,236
34	3,372	5,395	2,697	12,644	3,372	3,203	0	3,035	1,686	23,940
35	3,471	5,554	2,777	13,016	3,471	3,297	0	3,124	1,736	24,644
36	3,570	5,712	2,856	13,388	3,570	3,392	0	3,213	1,785	25,348
37	3,669	5,871	2,935	13,760	3,669	3,486	0	3,302	1,835	26,052
38	3,769	6,030	3,015	14,132	3,769	3,580	0	3,392	1,884	26,757
39	3,868	6,188	3,094	14,504	3,868	3,674	0	3,481	1,934	27,461
40	3,967	6,347	3,174	14,876	3,967	3,769	0	3,570	1,983	28,165

HUC 12 # 102702050401 Annual Soil Erosion Reduction, Cropland BMPs (tons)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	150	241	120	564	150	143	0	135	75	1,068
2	301	481	241	1,128	301	286	0	271	150	2,135
3	451	722	361	1,692	451	429	0	406	226	3,203
4	602	962	481	2,256	602	571	0	541	301	4,271
5	752	1,203	602	2,820	752	714	0	677	376	5,338
6	902	1,444	722	3,383	902	857	0	812	451	6,406
7	1,053	1,684	842	3,947	1,053	1,000	0	947	526	7,474
8	1,203	1,925	962	4,511	1,203	1,143	0	1,083	602	8,541
9	1,353	2,165	1,083	5,075	1,353	1,286	0	1,218	677	9,609
10	1,504	2,406	1,203	5,639	1,504	1,429	0	1,353	752	10,677
11	1,654	2,647	1,323	6,203	1,654	1,571	0	1,489	827	11,744
12	1,805	2,887	1,444	6,767	1,805	1,714	0	1,624	902	12,812
13	1,955	3,128	1,564	7,331	1,955	1,857	0	1,759	977	13,880
14	2,105	3,368	1,684	7,895	2,105	2,000	0	1,895	1,053	14,947
15	2,256	3,609	1,805	8,459	2,256	2,143	0	2,030	1,128	16,015
16	2,406	3,850	1,925	9,023	2,406	2,286	0	2,165	1,203	17,083
17	2,556	4,090	2,045	9,586	2,556	2,429	0	2,301	1,278	18,150
18	2,707	4,331	2,165	10,150	2,707	2,571	0	2,436	1,353	19,218
19	2,857	4,571	2,286	10,714	2,857	2,714	0	2,571	1,429	20,286
20	3,008	4,812	2,406	11,278	3,008	2,857	0	2,707	1,504	21,353
21	3,158	5,053	2,526	11,842	3,158	3,000	0	2,842	1,579	22,421
22	3,308	5,293	2,647	12,406	3,308	3,143	0	2,977	1,654	23,489
23	3,459	5,534	2,767	12,970	3,459	3,286	0	3,113	1,729	24,556
24	3,609	5,774	2,887	13,534	3,609	3,429	0	3,248	1,805	25,624
25	3,759	6,015	3,008	14,098	3,759	3,571	0	3,383	1,880	26,692
26	3,910	6,256	3,128	14,662	3,910	3,714	0	3,519	1,955	27,759
27	4,060	6,496	3,248	15,225	4,060	3,857	0	3,654	2,030	28,827
28	4,211	6,737	3,368	15,789	4,211	4,000	0	3,789	2,105	29,895
29	4,361	6,977	3,489	16,353	4,361	4,143	0	3,925	2,180	30,962
30	4,511	7,218	3,609	16,917	4,511	4,286	0	4,060	2,256	32,030
31	4,662	7,459	3,729	17,481	4,662	4,429	0	4,195	2,331	33,098
32	4,812	7,699	3,850	18,045	4,812	4,571	0	4,331	2,406	34,165
33	4,962	7,940	3,970	18,609	4,962	4,714	0	4,466	2,481	35,233
34	5,113	8,180	4,090	19,173	5,113	4,857	0	4,601	2,556	36,301
35	5,263	8,421	4,211	19,737	5,263	5,000	0	4,737	2,632	37,368
36	5,414	8,662	4,331	20,301	5,414	5,143	0	4,872	2,707	38,436
37	5,564	8,902	4,451	20,865	5,564	5,286	0	5,007	2,782	39,504
38	5,714	9,143	4,571	21,428	5,714	5,429	0	5,143	2,857	40,571
39	5,865	9,383	4,692	21,992	5,865	5,571	0	5,278	2,932	41,639
40	6,015	9,624	4,812	22,556	6,015	5,714	0	5,414	3,008	42,707

HUC 12 # 102702050402 Annual Soil Erosion Reduction, Cropland BMPs (tons)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	73	117	58	273	73	69	0	66	36	518
2	146	233	117	547	146	138	0	131	73	1,035
3	219	350	175	820	219	208	0	197	109	1,553
4	292	466	233	1,093	292	277	0	262	146	2,070
5	364	583	292	1,367	364	346	0	328	182	2,588
6	437	700	350	1,640	437	415	0	394	219	3,105
7	510	816	408	1,913	510	485	0	459	255	3,623
8	583	933	466	2,187	583	554	0	525	292	4,140
9	656	1,050	525	2,460	656	623	0	590	328	4,658
10	729	1,166	583	2,733	729	692	0	656	364	5,175
11	802	1,283	641	3,007	802	762	0	722	401	5,693
12	875	1,399	700	3,280	875	831	0	787	437	6,210
13	948	1,516	758	3,553	948	900	0	853	474	6,728
14	1,020	1,633	816	3,827	1,020	969	0	918	510	7,245
15	1,093	1,749	875	4,100	1,093	1,039	0	984	547	7,763
16	1,166	1,866	933	4,373	1,166	1,108	0	1,050	583	8,280
17	1,239	1,983	991	4,647	1,239	1,177	0	1,115	620	8,798
18	1,312	2,099	1,050	4,920	1,312	1,246	0	1,181	656	9,315
19	1,385	2,216	1,108	5,193	1,385	1,316	0	1,246	692	9,833
20	1,458	2,332	1,166	5,467	1,458	1,385	0	1,312	729	10,350
21	1,531	2,449	1,225	5,740	1,531	1,454	0	1,378	765	10,868
22	1,604	2,566	1,283	6,013	1,604	1,523	0	1,443	802	11,385
23	1,676	2,682	1,341	6,287	1,676	1,593	0	1,509	838	11,903
24	1,749	2,799	1,399	6,560	1,749	1,662	0	1,574	875	12,420
25	1,822	2,916	1,458	6,833	1,822	1,731	0	1,640	911	12,938
26	1,895	3,032	1,516	7,107	1,895	1,800	0	1,706	948	13,455
27	1,968	3,149	1,574	7,380	1,968	1,870	0	1,771	984	13,973
28	2,041	3,265	1,633	7,653	2,041	1,939	0	1,837	1,020	14,490
29	2,114	3,382	1,691	7,927	2,114	2,008	0	1,902	1,057	15,008
30	2,187	3,499	1,749	8,200	2,187	2,077	0	1,968	1,093	15,525
31	2,260	3,615	1,808	8,473	2,260	2,147	0	2,034	1,130	16,043
32	2,332	3,732	1,866	8,747	2,332	2,216	0	2,099	1,166	16,560
33	2,405	3,849	1,924	9,020	2,405	2,285	0	2,165	1,203	17,078
34	2,478	3,965	1,983	9,293	2,478	2,354	0	2,230	1,239	17,595
35	2,551	4,082	2,041	9,567	2,551	2,424	0	2,296	1,276	18,113
36	2,624	4,198	2,099	9,840	2,624	2,493	0	2,362	1,312	18,630
37	2,697	4,315	2,158	10,113	2,697	2,562	0	2,427	1,348	19,148
38	2,770	4,432	2,216	10,387	2,770	2,631	0	2,493	1,385	19,666
39	2,843	4,548	2,274	10,660	2,843	2,701	0	2,558	1,421	20,183
40	2,916	4,665	2,332	10,933	2,916	2,770	0	2,624	1,458	20,701

HUC 12 # 102702050403 Annual Soil Erosion Reduction, Cropland BMPs (tons)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	89	142	71	332	89	84	0	80	44	629
2	177	283	142	664	177	168	0	159	89	1,258
3	266	425	213	996	266	252	0	239	133	1,887
4	354	567	283	1,329	354	337	0	319	177	2,515
5	443	709	354	1,661	443	421	0	399	221	3,144
6	531	850	425	1,993	531	505	0	478	266	3,773
7	620	992	496	2,325	620	589	0	558	310	4,402
8	709	1,134	567	2,657	709	673	0	638	354	5,031
9	797	1,275	638	2,989	797	757	0	717	399	5,660
10	886	1,417	709	3,321	886	841	0	797	443	6,288
11	974	1,559	779	3,654	974	926	0	877	487	6,917
12	1,063	1,701	850	3,986	1,063	1,010	0	957	531	7,546
13	1,151	1,842	921	4,318	1,151	1,094	0	1,036	576	8,175
14	1,240	1,984	992	4,650	1,240	1,178	0	1,116	620	8,804
15	1,329	2,126	1,063	4,982	1,329	1,262	0	1,196	664	9,433
16	1,417	2,267	1,134	5,314	1,417	1,346	0	1,275	709	10,062
17	1,506	2,409	1,205	5,646	1,506	1,430	0	1,355	753	10,690
18	1,594	2,551	1,275	5,978	1,594	1,515	0	1,435	797	11,319
19	1,683	2,693	1,346	6,311	1,683	1,599	0	1,515	841	11,948
20	1,771	2,834	1,417	6,643	1,771	1,683	0	1,594	886	12,577
21	1,860	2,976	1,488	6,975	1,860	1,767	0	1,674	930	13,206
22	1,949	3,118	1,559	7,307	1,949	1,851	0	1,754	974	13,835
23	2,037	3,259	1,630	7,639	2,037	1,935	0	1,833	1,019	14,463
24	2,126	3,401	1,701	7,971	2,126	2,019	0	1,913	1,063	15,092
25	2,214	3,543	1,771	8,303	2,214	2,104	0	1,993	1,107	15,721
26	2,303	3,685	1,842	8,636	2,303	2,188	0	2,073	1,151	16,350
27	2,391	3,826	1,913	8,968	2,391	2,272	0	2,152	1,196	16,979
28	2,480	3,968	1,984	9,300	2,480	2,356	0	2,232	1,240	17,608
29	2,569	4,110	2,055	9,632	2,569	2,440	0	2,312	1,284	18,237
30	2,657	4,251	2,126	9,964	2,657	2,524	0	2,391	1,329	18,865
31	2,746	4,393	2,197	10,296	2,746	2,608	0	2,471	1,373	19,494
32	2,834	4,535	2,267	10,628	2,834	2,693	0	2,551	1,417	20,123
33	2,923	4,676	2,338	10,961	2,923	2,777	0	2,631	1,461	20,752
34	3,011	4,818	2,409	11,293	3,011	2,861	0	2,710	1,506	21,381
35	3,100	4,960	2,480	11,625	3,100	2,945	0	2,790	1,550	22,010
36	3,189	5,102	2,551	11,957	3,189	3,029	0	2,870	1,594	22,638
37	3,277	5,243	2,622	12,289	3,277	3,113	0	2,949	1,639	23,267
38	3,366	5,385	2,693	12,621	3,366	3,197	0	3,029	1,683	23,896
39	3,454	5,527	2,763	12,953	3,454	3,282	0	3,109	1,727	24,525
40	3,543	5,668	2,834	13,286	3,543	3,366	0	3,189	1,771	25,154

HUC 12 # 102702050501 Annual Soil Erosion Reduction, Cropland BMPs (tons)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	202	323	162	758	202	192	0	182	101	1,434
2	404	646	323	1,515	404	384	0	364	202	2,869
3	606	970	485	2,273	606	576	0	545	303	4,303
4	808	1,293	646	3,030	808	768	0	727	404	5,737
5	1,010	1,616	808	3,788	1,010	960	0	909	505	7,171
6	1,212	1,939	970	4,545	1,212	1,151	0	1,091	606	8,606
7	1,414	2,263	1,131	5,303	1,414	1,343	0	1,273	707	10,040
8	1,616	2,586	1,293	6,060	1,616	1,535	0	1,454	808	11,474
9	1,818	2,909	1,454	6,818	1,818	1,727	0	1,636	909	12,909
10	2,020	3,232	1,616	7,575	2,020	1,919	0	1,818	1,010	14,343
11	2,222	3,555	1,778	8,333	2,222	2,111	0	2,000	1,111	15,777
12	2,424	3,879	1,939	9,091	2,424	2,303	0	2,182	1,212	17,211
13	2,626	4,202	2,101	9,848	2,626	2,495	0	2,364	1,313	18,646
14	2,828	4,525	2,263	10,606	2,828	2,687	0	2,545	1,414	20,080
15	3,030	4,848	2,424	11,363	3,030	2,879	0	2,727	1,515	21,514
16	3,232	5,172	2,586	12,121	3,232	3,071	0	2,909	1,616	22,949
17	3,434	5,495	2,747	12,878	3,434	3,262	0	3,091	1,717	24,383
18	3,636	5,818	2,909	13,636	3,636	3,454	0	3,273	1,818	25,817
19	3,838	6,141	3,071	14,393	3,838	3,646	0	3,454	1,919	27,251
20	4,040	6,464	3,232	15,151	4,040	3,838	0	3,636	2,020	28,686
21	4,242	6,788	3,394	15,908	4,242	4,030	0	3,818	2,121	30,120
22	4,444	7,111	3,555	16,666	4,444	4,222	0	4,000	2,222	31,554
23	4,646	7,434	3,717	17,424	4,646	4,414	0	4,182	2,323	32,989
24	4,848	7,757	3,879	18,181	4,848	4,606	0	4,363	2,424	34,423
25	5,050	8,080	4,040	18,939	5,050	4,798	0	4,545	2,525	35,857
26	5,252	8,404	4,202	19,696	5,252	4,990	0	4,727	2,626	37,291
27	5,454	8,727	4,363	20,454	5,454	5,182	0	4,909	2,727	38,726
28	5,656	9,050	4,525	21,211	5,656	5,374	0	5,091	2,828	40,160
29	5,858	9,373	4,687	21,969	5,858	5,565	0	5,273	2,929	41,594
30	6,060	9,697	4,848	22,726	6,060	5,757	0	5,454	3,030	43,029
31	6,262	10,020	5,010	23,484	6,262	5,949	0	5,636	3,131	44,463
32	6,464	10,343	5,172	24,241	6,464	6,141	0	5,818	3,232	45,897
33	6,666	10,666	5,333	24,999	6,666	6,333	0	6,000	3,333	47,331
34	6,868	10,989	5,495	25,757	6,868	6,525	0	6,182	3,434	48,766
35	7,070	11,313	5,656	26,514	7,070	6,717	0	6,363	3,535	50,200
36	7,272	11,636	5,818	27,272	7,272	6,909	0	6,545	3,636	51,634
37	7,474	11,959	5,980	28,029	7,474	7,101	0	6,727	3,737	53,069
38	7,676	12,282	6,141	28,787	7,676	7,293	0	6,909	3,838	54,503
39	7,878	12,606	6,303	29,544	7,878	7,485	0	7,091	3,939	55,937
40	8,080	12,929	6,464	30,302	8,080	7,676	0	7,272	4,040	57,371

c. Mainstem Targeted Areas plus Riparian Corridors

HUC 12 # 102702050406 Annual Soil Erosion Reduction, Cropland BMPs (tons)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	46	74	37	173	46	44	0	42	23	328
2	92	148	74	347	92	88	0	83	46	657
3	139	222	111	520	139	132	0	125	69	985
4	185	296	148	694	185	176	0	166	92	1,313
5	231	370	185	867	231	220	0	208	116	1,642
6	277	444	222	1,041	277	264	0	250	139	1,970
7	324	518	259	1,214	324	308	0	291	162	2,298
8	370	592	296	1,387	370	351	0	333	185	2,627
9	416	666	333	1,561	416	395	0	375	208	2,955
10	462	740	370	1,734	462	439	0	416	231	3,284
11	509	814	407	1,908	509	483	0	458	254	3,612
12	555	888	444	2,081	555	527	0	499	277	3,940
13	601	962	481	2,255	601	571	0	541	301	4,269
14	647	1,036	518	2,428	647	615	0	583	324	4,597
15	694	1,110	555	2,601	694	659	0	624	347	4,925
16	740	1,184	592	2,775	740	703	0	666	370	5,254
17	786	1,258	629	2,948	786	747	0	708	393	5,582
18	832	1,332	666	3,122	832	791	0	749	416	5,910
19	879	1,406	703	3,295	879	835	0	791	439	6,239
20	925	1,480	740	3,469	925	879	0	832	462	6,567
21	971	1,554	777	3,642	971	923	0	874	486	6,895
22	1,017	1,628	814	3,815	1,017	967	0	916	509	7,224
23	1,064	1,702	851	3,989	1,064	1,010	0	957	532	7,552
24	1,110	1,776	888	4,162	1,110	1,054	0	999	555	7,880
25	1,156	1,850	925	4,336	1,156	1,098	0	1,041	578	8,209
26	1,202	1,924	962	4,509	1,202	1,142	0	1,082	601	8,537
27	1,249	1,998	999	4,682	1,249	1,186	0	1,124	624	8,866
28	1,295	2,072	1,036	4,856	1,295	1,230	0	1,165	647	9,194
29	1,341	2,146	1,073	5,029	1,341	1,274	0	1,207	671	9,522
30	1,387	2,220	1,110	5,203	1,387	1,318	0	1,249	694	9,851
31	1,434	2,294	1,147	5,376	1,434	1,362	0	1,290	717	10,179
32	1,480	2,368	1,184	5,550	1,480	1,406	0	1,332	740	10,507
33	1,526	2,442	1,221	5,723	1,526	1,450	0	1,374	763	10,836
34	1,572	2,516	1,258	5,896	1,572	1,494	0	1,415	786	11,164
35	1,619	2,590	1,295	6,070	1,619	1,538	0	1,457	809	11,492
36	1,665	2,664	1,332	6,243	1,665	1,582	0	1,498	832	11,821
37	1,711	2,738	1,369	6,417	1,711	1,626	0	1,540	856	12,149
38	1,757	2,812	1,406	6,590	1,757	1,670	0	1,582	879	12,477
39	1,804	2,886	1,443	6,764	1,804	1,713	0	1,623	902	12,806
40	1,850	2,960	1,480	6,937	1,850	1,757	0	1,665	925	13,134

HUC 12 # 102702050502 Annual Soil Erosion Reduction, Cropland BMPs (tons)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	95	153	76	358	95	91	0	86	48	678
2	191	306	153	716	191	181	0	172	95	1,356
3	286	458	229	1,074	286	272	0	258	143	2,034
4	382	611	306	1,432	382	363	0	344	191	2,712
5	477	764	382	1,790	477	454	0	430	239	3,389
6	573	917	458	2,148	573	544	0	516	286	4,067
7	668	1,069	535	2,506	668	635	0	602	334	4,745
8	764	1,222	611	2,864	764	726	0	687	382	5,423
9	859	1,375	687	3,222	859	816	0	773	430	6,101
10	955	1,528	764	3,580	955	907	0	859	477	6,779
11	1,050	1,680	840	3,938	1,050	998	0	945	525	7,457
12	1,146	1,833	917	4,297	1,146	1,088	0	1,031	573	8,135
13	1,241	1,986	993	4,655	1,241	1,179	0	1,117	621	8,813
14	1,337	2,139	1,069	5,013	1,337	1,270	0	1,203	668	9,491
15	1,432	2,291	1,146	5,371	1,432	1,361	0	1,289	716	10,168
16	1,528	2,444	1,222	5,729	1,528	1,451	0	1,375	764	10,846
17	1,623	2,597	1,299	6,087	1,623	1,542	0	1,461	812	11,524
18	1,719	2,750	1,375	6,445	1,719	1,633	0	1,547	859	12,202
19	1,814	2,903	1,451	6,803	1,814	1,723	0	1,633	907	12,880
20	1,910	3,055	1,528	7,161	1,910	1,814	0	1,719	955	13,558
21	2,005	3,208	1,604	7,519	2,005	1,905	0	1,805	1,003	14,236
22	2,101	3,361	1,680	7,877	2,101	1,996	0	1,890	1,050	14,914
23	2,196	3,514	1,757	8,235	2,196	2,086	0	1,976	1,098	15,592
24	2,291	3,666	1,833	8,593	2,291	2,177	0	2,062	1,146	16,270
25	2,387	3,819	1,910	8,951	2,387	2,268	0	2,148	1,193	16,947
26	2,482	3,972	1,986	9,309	2,482	2,358	0	2,234	1,241	17,625
27	2,578	4,125	2,062	9,667	2,578	2,449	0	2,320	1,289	18,303
28	2,673	4,277	2,139	10,025	2,673	2,540	0	2,406	1,337	18,981
29	2,769	4,430	2,215	10,383	2,769	2,630	0	2,492	1,384	19,659
30	2,864	4,583	2,291	10,741	2,864	2,721	0	2,578	1,432	20,337
31	2,960	4,736	2,368	11,099	2,960	2,812	0	2,664	1,480	21,015
32	3,055	4,889	2,444	11,457	3,055	2,903	0	2,750	1,528	21,693
33	3,151	5,041	2,521	11,815	3,151	2,993	0	2,836	1,575	22,371
34	3,246	5,194	2,597	12,174	3,246	3,084	0	2,922	1,623	23,049
35	3,342	5,347	2,673	12,532	3,342	3,175	0	3,008	1,671	23,726
36	3,437	5,500	2,750	12,890	3,437	3,265	0	3,094	1,719	24,404
37	3,533	5,652	2,826	13,248	3,533	3,356	0	3,179	1,766	25,082
38	3,628	5,805	2,903	13,606	3,628	3,447	0	3,265	1,814	25,760
39	3,724	5,958	2,979	13,964	3,724	3,537	0	3,351	1,862	26,438
40	3,819	6,111	3,055	14,322	3,819	3,628	0	3,437	1,910	27,116

HUC 12 # 102702050503 Annual Soil Erosion Reduction, Cropland BMPs (tons)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	10	15	8	36	10	9	0	9	5	68
2	19	31	15	72	19	18	0	17	10	137
3	29	46	23	108	29	27	0	26	14	205
4	38	62	31	144	38	37	0	35	19	273
5	48	77	38	180	48	46	0	43	24	341
6	58	92	46	216	58	55	0	52	29	410
7	67	108	54	253	67	64	0	61	34	478
8	77	123	62	289	77	73	0	69	38	546
9	87	139	69	325	87	82	0	78	43	615
10	96	154	77	361	96	91	0	87	48	683
11	106	169	85	397	106	101	0	95	53	751
12	115	185	92	433	115	110	0	104	58	820
13	125	200	100	469	125	119	0	113	63	888
14	135	215	108	505	135	128	0	121	67	956
15	144	231	115	541	144	137	0	130	72	1,024
16	154	246	123	577	154	146	0	139	77	1,093
17	164	262	131	613	164	155	0	147	82	1,161
18	173	277	139	649	173	164	0	156	87	1,229
19	183	292	146	685	183	174	0	164	91	1,298
20	192	308	154	721	192	183	0	173	96	1,366
21	202	323	162	758	202	192	0	182	101	1,434
22	212	339	169	794	212	201	0	190	106	1,503
23	221	354	177	830	221	210	0	199	111	1,571
24	231	369	185	866	231	219	0	208	115	1,639
25	240	385	192	902	240	228	0	216	120	1,707
26	250	400	200	938	250	238	0	225	125	1,776
27	260	416	208	974	260	247	0	234	130	1,844
28	269	431	215	1,010	269	256	0	242	135	1,912
29	279	446	223	1,046	279	265	0	251	139	1,981
30	289	462	231	1,082	289	274	0	260	144	2,049
31	298	477	239	1,118	298	283	0	268	149	2,117
32	308	493	246	1,154	308	292	0	277	154	2,186
33	317	508	254	1,190	317	302	0	286	159	2,254
34	327	523	262	1,226	327	311	0	294	164	2,322
35	337	539	269	1,263	337	320	0	303	168	2,390
36	346	554	277	1,299	346	329	0	312	173	2,459
37	356	569	285	1,335	356	338	0	320	178	2,527
38	366	585	292	1,371	366	347	0	329	183	2,595
39	375	600	300	1,407	375	356	0	338	188	2,664
40	385	616	308	1,443	385	366	0	346	192	2,732

HUC 12 # 102702050505 Annual Soil Erosion Reduction, Cropland BMPs (tons)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	101	161	80	377	101	95	0	90	50	714
2	201	322	161	754	201	191	0	181	101	1,427
3	302	482	241	1,131	302	286	0	271	151	2,141
4	402	643	322	1,508	402	382	0	362	201	2,854
5	503	804	402	1,884	503	477	0	452	251	3,568
6	603	965	482	2,261	603	573	0	543	302	4,281
7	704	1,126	563	2,638	704	668	0	633	352	4,995
8	804	1,286	643	3,015	804	764	0	724	402	5,708
9	905	1,447	724	3,392	905	859	0	814	452	6,422
10	1,005	1,608	804	3,769	1,005	955	0	905	503	7,136
11	1,106	1,769	884	4,146	1,106	1,050	0	995	553	7,849
12	1,206	1,930	965	4,523	1,206	1,146	0	1,085	603	8,563
13	1,307	2,090	1,045	4,899	1,307	1,241	0	1,176	653	9,276
14	1,407	2,251	1,126	5,276	1,407	1,337	0	1,266	704	9,990
15	1,508	2,412	1,206	5,653	1,508	1,432	0	1,357	754	10,703
16	1,608	2,573	1,286	6,030	1,608	1,528	0	1,447	804	11,417
17	1,709	2,734	1,367	6,407	1,709	1,623	0	1,538	854	12,130
18	1,809	2,894	1,447	6,784	1,809	1,719	0	1,628	905	12,844
19	1,910	3,055	1,528	7,161	1,910	1,814	0	1,719	955	13,557
20	2,010	3,216	1,608	7,538	2,010	1,910	0	1,809	1,005	14,271
21	2,111	3,377	1,688	7,914	2,111	2,005	0	1,899	1,055	14,985
22	2,211	3,538	1,769	8,291	2,211	2,100	0	1,990	1,106	15,698
23	2,312	3,698	1,849	8,668	2,312	2,196	0	2,080	1,156	16,412
24	2,412	3,859	1,930	9,045	2,412	2,291	0	2,171	1,206	17,125
25	2,513	4,020	2,010	9,422	2,513	2,387	0	2,261	1,256	17,839
26	2,613	4,181	2,090	9,799	2,613	2,482	0	2,352	1,307	18,552
27	2,714	4,342	2,171	10,176	2,714	2,578	0	2,442	1,357	19,266
28	2,814	4,502	2,251	10,553	2,814	2,673	0	2,533	1,407	19,979
29	2,915	4,663	2,332	10,929	2,915	2,769	0	2,623	1,457	20,693
30	3,015	4,824	2,412	11,306	3,015	2,864	0	2,714	1,508	21,407
31	3,116	4,985	2,492	11,683	3,116	2,960	0	2,804	1,558	22,120
32	3,216	5,146	2,573	12,060	3,216	3,055	0	2,894	1,608	22,834
33	3,317	5,306	2,653	12,437	3,317	3,151	0	2,985	1,658	23,547
34	3,417	5,467	2,734	12,814	3,417	3,246	0	3,075	1,709	24,261
35	3,518	5,628	2,814	13,191	3,518	3,342	0	3,166	1,759	24,974
36	3,618	5,789	2,894	13,568	3,618	3,437	0	3,256	1,809	25,688
37	3,719	5,950	2,975	13,944	3,719	3,533	0	3,347	1,859	26,401
38	3,819	6,110	3,055	14,321	3,819	3,628	0	3,437	1,910	27,115
39	3,920	6,271	3,136	14,698	3,920	3,724	0	3,528	1,960	27,828
40	4,020	6,432	3,216	15,075	4,020	3,819	0	3,618	2,010	28,542

HUC 12 # 102702050506 Annual Soil Erosion Reduction, Cropland BMPs (tons)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	30	48	24	113	30	29	0	27	15	213
2	60	96	48	225	60	57	0	54	30	426
3	90	144	72	338	90	86	0	81	45	639
4	120	192	96	450	120	114	0	108	60	853
5	150	240	120	563	150	143	0	135	75	1,066
6	180	288	144	675	180	171	0	162	90	1,279
7	210	336	168	788	210	200	0	189	105	1,492
8	240	384	192	901	240	228	0	216	120	1,705
9	270	432	216	1,013	270	257	0	243	135	1,918
10	300	480	240	1,126	300	285	0	270	150	2,131
11	330	528	264	1,238	330	314	0	297	165	2,344
12	360	576	288	1,351	360	342	0	324	180	2,558
13	390	624	312	1,463	390	371	0	351	195	2,771
14	420	672	336	1,576	420	399	0	378	210	2,984
15	450	720	360	1,688	450	428	0	405	225	3,197
16	480	768	384	1,801	480	456	0	432	240	3,410
17	510	816	408	1,914	510	485	0	459	255	3,623
18	540	865	432	2,026	540	513	0	486	270	3,836
19	570	913	456	2,139	570	542	0	513	285	4,049
20	600	961	480	2,251	600	570	0	540	300	4,263
21	630	1,009	504	2,364	630	599	0	567	315	4,476
22	660	1,057	528	2,476	660	627	0	594	330	4,689
23	690	1,105	552	2,589	690	656	0	621	345	4,902
24	720	1,153	576	2,702	720	684	0	648	360	5,115
25	750	1,201	600	2,814	750	713	0	675	375	5,328
26	780	1,249	624	2,927	780	741	0	702	390	5,541
27	810	1,297	648	3,039	810	770	0	729	405	5,754
28	840	1,345	672	3,152	840	798	0	756	420	5,968
29	871	1,393	696	3,264	871	827	0	783	435	6,181
30	901	1,441	720	3,377	901	856	0	810	450	6,394
31	931	1,489	744	3,490	931	884	0	837	465	6,607
32	961	1,537	768	3,602	961	913	0	865	480	6,820
33	991	1,585	792	3,715	991	941	0	892	495	7,033
34	1,021	1,633	816	3,827	1,021	970	0	919	510	7,246
35	1,051	1,681	840	3,940	1,051	998	0	946	525	7,459
36	1,081	1,729	865	4,052	1,081	1,027	0	973	540	7,673
37	1,111	1,777	889	4,165	1,111	1,055	0	1,000	555	7,886
38	1,141	1,825	913	4,278	1,141	1,084	0	1,027	570	8,099
39	1,171	1,873	937	4,390	1,171	1,112	0	1,054	585	8,312
40	1,201	1,921	961	4,503	1,201	1,141	0	1,081	600	8,525

Riparian Areas Annual Soil Erosion Reduction, Cropland BMPs (tons)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	86	138	69	322	86	82	0	77	43	610
2	172	275	138	645	172	163	0	155	86	1,221
3	258	413	206	967	258	245	0	232	129	1,831
4	344	550	275	1,289	344	327	0	309	172	2,441
5	430	688	344	1,612	430	408	0	387	215	3,051
6	516	825	413	1,934	516	490	0	464	258	3,662
7	602	963	481	2,256	602	572	0	542	301	4,272
8	688	1,100	550	2,579	688	653	0	619	344	4,882
9	774	1,238	619	2,901	774	735	0	696	387	5,493
10	860	1,375	688	3,223	860	817	0	774	430	6,103
11	946	1,513	756	3,546	946	898	0	851	473	6,713
12	1,031	1,650	825	3,868	1,031	980	0	928	516	7,323
13	1,117	1,788	894	4,190	1,117	1,062	0	1,006	559	7,934
14	1,203	1,925	963	4,513	1,203	1,143	0	1,083	602	8,544
15	1,289	2,063	1,031	4,835	1,289	1,225	0	1,160	645	9,154
16	1,375	2,200	1,100	5,157	1,375	1,307	0	1,238	688	9,765
17	1,461	2,338	1,169	5,480	1,461	1,388	0	1,315	731	10,375
18	1,547	2,476	1,238	5,802	1,547	1,470	0	1,392	774	10,985
19	1,633	2,613	1,307	6,124	1,633	1,552	0	1,470	817	11,595
20	1,719	2,751	1,375	6,447	1,719	1,633	0	1,547	860	12,206
21	1,805	2,888	1,444	6,769	1,805	1,715	0	1,625	903	12,816
22	1,891	3,026	1,513	7,091	1,891	1,796	0	1,702	946	13,426
23	1,977	3,163	1,582	7,414	1,977	1,878	0	1,779	988	14,037
24	2,063	3,301	1,650	7,736	2,063	1,960	0	1,857	1,031	14,647
25	2,149	3,438	1,719	8,058	2,149	2,041	0	1,934	1,074	15,257
26	2,235	3,576	1,788	8,381	2,235	2,123	0	2,011	1,117	15,867
27	2,321	3,713	1,857	8,703	2,321	2,205	0	2,089	1,160	16,478
28	2,407	3,851	1,925	9,025	2,407	2,286	0	2,166	1,203	17,088
29	2,493	3,988	1,994	9,348	2,493	2,368	0	2,243	1,246	17,698
30	2,579	4,126	2,063	9,670	2,579	2,450	0	2,321	1,289	18,309
31	2,665	4,263	2,132	9,992	2,665	2,531	0	2,398	1,332	18,919
32	2,751	4,401	2,200	10,315	2,751	2,613	0	2,476	1,375	19,529
33	2,837	4,538	2,269	10,637	2,837	2,695	0	2,553	1,418	20,139
34	2,923	4,676	2,338	10,959	2,923	2,776	0	2,630	1,461	20,750
35	3,008	4,814	2,407	11,282	3,008	2,858	0	2,708	1,504	21,360
36	3,094	4,951	2,476	11,604	3,094	2,940	0	2,785	1,547	21,970
37	3,180	5,089	2,544	11,926	3,180	3,021	0	2,862	1,590	22,581
38	3,266	5,226	2,613	12,249	3,266	3,103	0	2,940	1,633	23,191
39	3,352	5,364	2,682	12,571	3,352	3,185	0	3,017	1,676	23,801
40	3,438	5,501	2,751	12,893	3,438	3,266	0	3,094	1,719	24,412

3. Cropland Load Reduction Tables by Sub-Watershed/Targeted Area: Phosphorus

a. Little Blue Targeted Areas

HUC 12 # 102702070505 Annual Phosphorus Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	27	54	22	54	27	26	14	24	14	262
2	54	109	43	109	54	52	27	49	27	524
3	82	163	65	163	82	77	41	73	41	787
4	109	217	87	217	109	103	54	98	54	1,049
5	136	272	109	272	136	129	68	122	68	1,311
6	163	326	130	326	163	155	82	147	82	1,573
7	190	380	152	380	190	181	95	171	95	1,835
8	217	435	174	435	217	206	109	196	109	2,097
9	245	489	196	489	245	232	122	220	122	2,360
10	272	543	217	543	272	258	136	245	136	2,622
11	299	598	239	598	299	284	149	269	149	2,884
12	326	652	261	652	326	310	163	293	163	3,146
13	353	706	283	706	353	336	177	318	177	3,408
14	380	761	304	761	380	361	190	342	190	3,670
15	408	815	326	815	408	387	204	367	204	3,933
16	435	869	348	869	435	413	217	391	217	4,195
17	462	924	369	924	462	439	231	416	231	4,457
18	489	978	391	978	489	465	245	440	245	4,719
19	516	1,032	413	1,032	516	490	258	465	258	4,981
20	543	1,087	435	1,087	543	516	272	489	272	5,244
21	571	1,141	456	1,141	571	542	285	513	285	5,506
22	598	1,195	478	1,195	598	568	299	538	299	5,768
23	625	1,250	500	1,250	625	594	312	562	312	6,030
24	652	1,304	522	1,304	652	619	326	587	326	6,292
25	679	1,358	543	1,358	679	645	340	611	340	6,554
26	706	1,413	565	1,413	706	671	353	636	353	6,817
27	734	1,467	587	1,467	734	697	367	660	367	7,079
28	761	1,521	609	1,521	761	723	380	685	380	7,341
29	788	1,576	630	1,576	788	748	394	709	394	7,603
30	815	1,630	652	1,630	815	774	408	734	408	7,865
31	842	1,684	674	1,684	842	800	421	758	421	8,128
32	869	1,739	696	1,739	869	826	435	782	435	8,390
33	897	1,793	717	1,793	897	852	448	807	448	8,652
34	924	1,847	739	1,847	924	878	462	831	462	8,914
35	951	1,902	761	1,902	951	903	475	856	475	9,176
36	978	1,956	782	1,956	978	929	489	880	489	9,438
37	1,005	2,010	804	2,010	1,005	955	503	905	503	9,701
38	1,032	2,065	826	2,065	1,032	981	516	929	516	9,963
39	1,060	2,119	848	2,119	1,060	1,007	530	954	530	10,225
40	1,087	2,174	869	2,174	1,087	1,032	543	978	543	10,487

HUC 12 # 102702070601 Annual Phosphorus Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	30	60	24	60	30	28	15	27	15	288
2	60	119	48	119	60	57	30	54	30	576
3	90	179	72	179	90	85	45	81	45	864
4	119	239	96	239	119	113	60	107	60	1,152
5	149	298	119	298	149	142	75	134	75	1,440
6	179	358	143	358	179	170	90	161	90	1,728
7	209	418	167	418	209	198	104	188	104	2,016
8	239	478	191	478	239	227	119	215	119	2,304
9	269	537	215	537	269	255	134	242	134	2,592
10	298	597	239	597	298	284	149	269	149	2,880
11	328	657	263	657	328	312	164	295	164	3,168
12	358	716	287	716	358	340	179	322	179	3,456
13	388	776	310	776	388	369	194	349	194	3,744
14	418	836	334	836	418	397	209	376	209	4,032
15	448	895	358	895	448	425	224	403	224	4,320
16	478	955	382	955	478	454	239	430	239	4,608
17	507	1,015	406	1,015	507	482	254	457	254	4,896
18	537	1,074	430	1,074	537	510	269	483	269	5,184
19	567	1,134	454	1,134	567	539	284	510	284	5,472
20	597	1,194	478	1,194	597	567	298	537	298	5,760
21	627	1,253	501	1,253	627	595	313	564	313	6,048
22	657	1,313	525	1,313	657	624	328	591	328	6,336
23	686	1,373	549	1,373	686	652	343	618	343	6,624
24	716	1,433	573	1,433	716	680	358	645	358	6,912
25	746	1,492	597	1,492	746	709	373	671	373	7,200
26	776	1,552	621	1,552	776	737	388	698	388	7,488
27	806	1,612	645	1,612	806	765	403	725	403	7,776
28	836	1,671	669	1,671	836	794	418	752	418	8,064
29	865	1,731	692	1,731	865	822	433	779	433	8,352
30	895	1,791	716	1,791	895	851	448	806	448	8,640
31	925	1,850	740	1,850	925	879	463	833	463	8,928
32	955	1,910	764	1,910	955	907	478	860	478	9,216
33	985	1,970	788	1,970	985	936	492	886	492	9,504
34	1,015	2,029	812	2,029	1,015	964	507	913	507	9,792
35	1,045	2,089	836	2,089	1,045	992	522	940	522	10,080
36	1,074	2,149	860	2,149	1,074	1,021	537	967	537	10,368
37	1,104	2,208	883	2,208	1,104	1,049	552	994	552	10,656
38	1,134	2,268	907	2,268	1,134	1,077	567	1,021	567	10,944
39	1,164	2,328	931	2,328	1,164	1,106	582	1,048	582	11,232
40	1,194	2,388	955	2,388	1,194	1,134	597	1,074	597	11,520

HUC 12 # 102702070602 Annual Phosphorus Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	20	41	16	41	20	19	10	18	10	197
2	41	82	33	82	41	39	20	37	20	395
3	61	123	49	123	61	58	31	55	31	592
4	82	164	65	164	82	78	41	74	41	790
5	102	205	82	205	102	97	51	92	51	987
6	123	245	98	245	123	117	61	110	61	1,184
7	143	286	115	286	143	136	72	129	72	1,382
8	164	327	131	327	164	155	82	147	82	1,579
9	184	368	147	368	184	175	92	166	92	1,777
10	205	409	164	409	205	194	102	184	102	1,974
11	225	450	180	450	225	214	113	203	113	2,171
12	245	491	196	491	245	233	123	221	123	2,369
13	266	532	213	532	266	253	133	239	133	2,566
14	286	573	229	573	286	272	143	258	143	2,764
15	307	614	245	614	307	291	153	276	153	2,961
16	327	655	262	655	327	311	164	295	164	3,158
17	348	695	278	695	348	330	174	313	174	3,356
18	368	736	295	736	368	350	184	331	184	3,553
19	389	777	311	777	389	369	194	350	194	3,750
20	409	818	327	818	409	389	205	368	205	3,948
21	430	859	344	859	430	408	215	387	215	4,145
22	450	900	360	900	450	428	225	405	225	4,343
23	470	941	376	941	470	447	235	423	235	4,540
24	491	982	393	982	491	466	245	442	245	4,737
25	511	1,023	409	1,023	511	486	256	460	256	4,935
26	532	1,064	425	1,064	532	505	266	479	266	5,132
27	552	1,105	442	1,105	552	525	276	497	276	5,330
28	573	1,145	458	1,145	573	544	286	515	286	5,527
29	593	1,186	475	1,186	593	564	297	534	297	5,724
30	614	1,227	491	1,227	614	583	307	552	307	5,922
31	634	1,268	507	1,268	634	602	317	571	317	6,119
32	655	1,309	524	1,309	655	622	327	589	327	6,317
33	675	1,350	540	1,350	675	641	338	608	338	6,514
34	695	1,391	556	1,391	695	661	348	626	348	6,711
35	716	1,432	573	1,432	716	680	358	644	358	6,909
36	736	1,473	589	1,473	736	700	368	663	368	7,106
37	757	1,514	605	1,514	757	719	378	681	378	7,304
38	777	1,555	622	1,555	777	738	389	700	389	7,501
39	798	1,596	638	1,596	798	758	399	718	399	7,698
40	818	1,636	655	1,636	818	777	409	736	409	7,896

HUC 12 # 102702070603 Annual Phosphorus Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	37	75	30	75	37	36	19	34	19	362
2	75	150	60	150	75	71	37	67	37	723
3	112	225	90	225	112	107	56	101	56	1,085
4	150	300	120	300	150	142	75	135	75	1,447
5	187	375	150	375	187	178	94	169	94	1,808
6	225	450	180	450	225	214	112	202	112	2,170
7	262	525	210	525	262	249	131	236	131	2,531
8	300	600	240	600	300	285	150	270	150	2,893
9	337	675	270	675	337	320	169	304	169	3,255
10	375	750	300	750	375	356	187	337	187	3,616
11	412	824	330	824	412	392	206	371	206	3,978
12	450	899	360	899	450	427	225	405	225	4,340
13	487	974	390	974	487	463	244	438	244	4,701
14	525	1,049	420	1,049	525	498	262	472	262	5,063
15	562	1,124	450	1,124	562	534	281	506	281	5,425
16	600	1,199	480	1,199	600	570	300	540	300	5,786
17	637	1,274	510	1,274	637	605	319	573	319	6,148
18	675	1,349	540	1,349	675	641	337	607	337	6,509
19	712	1,424	570	1,424	712	676	356	641	356	6,871
20	750	1,499	600	1,499	750	712	375	675	375	7,233
21	787	1,574	630	1,574	787	748	393	708	393	7,594
22	824	1,649	660	1,649	824	783	412	742	412	7,956
23	862	1,724	690	1,724	862	819	431	776	431	8,318
24	899	1,799	720	1,799	899	854	450	809	450	8,679
25	937	1,874	750	1,874	937	890	468	843	468	9,041
26	974	1,949	779	1,949	974	926	487	877	487	9,403
27	1,012	2,024	809	2,024	1,012	961	506	911	506	9,764
28	1,049	2,099	839	2,099	1,049	997	525	944	525	10,126
29	1,087	2,174	869	2,174	1,087	1,032	543	978	543	10,488
30	1,124	2,249	899	2,249	1,124	1,068	562	1,012	562	10,849
31	1,162	2,323	929	2,323	1,162	1,104	581	1,046	581	11,211
32	1,199	2,398	959	2,398	1,199	1,139	600	1,079	600	11,572
33	1,237	2,473	989	2,473	1,237	1,175	618	1,113	618	11,934
34	1,274	2,548	1,019	2,548	1,274	1,210	637	1,147	637	12,296
35	1,312	2,623	1,049	2,623	1,312	1,246	656	1,180	656	12,657
36	1,349	2,698	1,079	2,698	1,349	1,282	675	1,214	675	13,019
37	1,387	2,773	1,109	2,773	1,387	1,317	693	1,248	693	13,381
38	1,424	2,848	1,139	2,848	1,424	1,353	712	1,282	712	13,742
39	1,462	2,923	1,169	2,923	1,462	1,388	731	1,315	731	14,104
40	1,499	2,998	1,199	2,998	1,499	1,424	750	1,349	750	14,466

HUC 12 # 102702070606 Annual Phosphorus Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	49	99	39	99	49	47	25	44	25	476
2	99	197	79	197	99	94	49	89	49	952
3	148	296	118	296	148	141	74	133	74	1,427
4	197	394	158	394	197	187	99	177	99	1,903
5	247	493	197	493	247	234	123	222	123	2,379
6	296	592	237	592	296	281	148	266	148	2,855
7	345	690	276	690	345	328	173	311	173	3,330
8	394	789	316	789	394	375	197	355	197	3,806
9	444	887	355	887	444	422	222	399	222	4,282
10	493	986	394	986	493	468	247	444	247	4,758
11	542	1,085	434	1,085	542	515	271	488	271	5,233
12	592	1,183	473	1,183	592	562	296	532	296	5,709
13	641	1,282	513	1,282	641	609	320	577	320	6,185
14	690	1,380	552	1,380	690	656	345	621	345	6,661
15	740	1,479	592	1,479	740	703	370	666	370	7,136
16	789	1,578	631	1,578	789	749	394	710	394	7,612
17	838	1,676	671	1,676	838	796	419	754	419	8,088
18	887	1,775	710	1,775	887	843	444	799	444	8,564
19	937	1,873	749	1,873	937	890	468	843	468	9,040
20	986	1,972	789	1,972	986	937	493	887	493	9,515
21	1,035	2,071	828	2,071	1,035	984	518	932	518	9,991
22	1,085	2,169	868	2,169	1,085	1,030	542	976	542	10,467
23	1,134	2,268	907	2,268	1,134	1,077	567	1,021	567	10,943
24	1,183	2,366	947	2,366	1,183	1,124	592	1,065	592	11,418
25	1,233	2,465	986	2,465	1,233	1,171	616	1,109	616	11,894
26	1,282	2,564	1,025	2,564	1,282	1,218	641	1,154	641	12,370
27	1,331	2,662	1,065	2,662	1,331	1,265	666	1,198	666	12,846
28	1,380	2,761	1,104	2,761	1,380	1,311	690	1,242	690	13,321
29	1,430	2,860	1,144	2,860	1,430	1,358	715	1,287	715	13,797
30	1,479	2,958	1,183	2,958	1,479	1,405	740	1,331	740	14,273
31	1,528	3,057	1,223	3,057	1,528	1,452	764	1,376	764	14,749
32	1,578	3,155	1,262	3,155	1,578	1,499	789	1,420	789	15,224
33	1,627	3,254	1,302	3,254	1,627	1,546	813	1,464	813	15,700
34	1,676	3,353	1,341	3,353	1,676	1,592	838	1,509	838	16,176
35	1,726	3,451	1,380	3,451	1,726	1,639	863	1,553	863	16,652
36	1,775	3,550	1,420	3,550	1,775	1,686	887	1,597	887	17,128
37	1,824	3,648	1,459	3,648	1,824	1,733	912	1,642	912	17,603
38	1,873	3,747	1,499	3,747	1,873	1,780	937	1,686	937	18,079
39	1,923	3,846	1,538	3,846	1,923	1,827	961	1,731	961	18,555
40	1,972	3,944	1,578	3,944	1,972	1,873	986	1,775	986	19,031

b. Big Blue Targeted Areas

HUC 12 # 102702050201 Annual Phosphorus Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	60	120	48	120	60	57	30	54	30	579
2	120	240	96	240	120	114	60	108	60	1,158
3	180	360	144	360	180	171	90	162	90	1,738
4	240	480	192	480	240	228	120	216	120	2,317
5	300	600	240	600	300	285	150	270	150	2,896
6	360	720	288	720	360	342	180	324	180	3,475
7	420	840	336	840	420	399	210	378	210	4,055
8	480	960	384	960	480	456	240	432	240	4,634
9	540	1,080	432	1,080	540	513	270	486	270	5,213
10	600	1,200	480	1,200	600	570	300	540	300	5,792
11	660	1,320	528	1,320	660	627	330	594	330	6,371
12	720	1,441	576	1,441	720	684	360	648	360	6,951
13	780	1,561	624	1,561	780	741	390	702	390	7,530
14	840	1,681	672	1,681	840	798	420	756	420	8,109
15	900	1,801	720	1,801	900	855	450	810	450	8,688
16	960	1,921	768	1,921	960	912	480	864	480	9,267
17	1,020	2,041	816	2,041	1,020	969	510	918	510	9,847
18	1,080	2,161	864	2,161	1,080	1,026	540	972	540	10,426
19	1,140	2,281	912	2,281	1,140	1,083	570	1,026	570	11,005
20	1,200	2,401	960	2,401	1,200	1,140	600	1,080	600	11,584
21	1,260	2,521	1,008	2,521	1,260	1,197	630	1,134	630	12,164
22	1,320	2,641	1,056	2,641	1,320	1,254	660	1,188	660	12,743
23	1,381	2,761	1,104	2,761	1,381	1,311	690	1,242	690	13,322
24	1,441	2,881	1,152	2,881	1,441	1,369	720	1,296	720	13,901
25	1,501	3,001	1,200	3,001	1,501	1,426	750	1,351	750	14,480
26	1,561	3,121	1,248	3,121	1,561	1,483	780	1,405	780	15,060
27	1,621	3,241	1,296	3,241	1,621	1,540	810	1,459	810	15,639
28	1,681	3,361	1,345	3,361	1,681	1,597	840	1,513	840	16,218
29	1,741	3,481	1,393	3,481	1,741	1,654	870	1,567	870	16,797
30	1,801	3,601	1,441	3,601	1,801	1,711	900	1,621	900	17,377
31	1,861	3,721	1,489	3,721	1,861	1,768	930	1,675	930	17,956
32	1,921	3,841	1,537	3,841	1,921	1,825	960	1,729	960	18,535
33	1,981	3,961	1,585	3,961	1,981	1,882	990	1,783	990	19,114
34	2,041	4,082	1,633	4,082	2,041	1,939	1,020	1,837	1,020	19,693
35	2,101	4,202	1,681	4,202	2,101	1,996	1,050	1,891	1,050	20,273
36	2,161	4,322	1,729	4,322	2,161	2,053	1,080	1,945	1,080	20,852
37	2,221	4,442	1,777	4,442	2,221	2,110	1,110	1,999	1,110	21,431
38	2,281	4,562	1,825	4,562	2,281	2,167	1,140	2,053	1,140	22,010
39	2,341	4,682	1,873	4,682	2,341	2,224	1,170	2,107	1,170	22,589
40	2,401	4,802	1,921	4,802	2,401	2,281	1,200	2,161	1,200	23,169

HUC 12 # 102702050204 Annual Phosphorus Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	67	135	54	135	67	64	34	61	34	649
2	135	269	108	269	135	128	67	121	67	1,298
3	202	404	161	404	202	192	101	182	101	1,948
4	269	538	215	538	269	256	135	242	135	2,597
5	336	673	269	673	336	320	168	303	168	3,246
6	404	807	323	807	404	383	202	363	202	3,895
7	471	942	377	942	471	447	235	424	235	4,545
8	538	1,076	431	1,076	538	511	269	484	269	5,194
9	605	1,211	484	1,211	605	575	303	545	303	5,843
10	673	1,346	538	1,346	673	639	336	605	336	6,492
11	740	1,480	592	1,480	740	703	370	666	370	7,141
12	807	1,615	646	1,615	807	767	404	727	404	7,791
13	875	1,749	700	1,749	875	831	437	787	437	8,440
14	942	1,884	754	1,884	942	895	471	848	471	9,089
15	1,009	2,018	807	2,018	1,009	959	505	908	505	9,738
16	1,076	2,153	861	2,153	1,076	1,023	538	969	538	10,388
17	1,144	2,287	915	2,287	1,144	1,087	572	1,029	572	11,037
18	1,211	2,422	969	2,422	1,211	1,150	605	1,090	605	11,686
19	1,278	2,557	1,023	2,557	1,278	1,214	639	1,150	639	12,335
20	1,346	2,691	1,076	2,691	1,346	1,278	673	1,211	673	12,984
21	1,413	2,826	1,130	2,826	1,413	1,342	706	1,272	706	13,634
22	1,480	2,960	1,184	2,960	1,480	1,406	740	1,332	740	14,283
23	1,547	3,095	1,238	3,095	1,547	1,470	774	1,393	774	14,932
24	1,615	3,229	1,292	3,229	1,615	1,534	807	1,453	807	15,581
25	1,682	3,364	1,346	3,364	1,682	1,598	841	1,514	841	16,231
26	1,749	3,498	1,399	3,498	1,749	1,662	875	1,574	875	16,880
27	1,816	3,633	1,453	3,633	1,816	1,726	908	1,635	908	17,529
28	1,884	3,768	1,507	3,768	1,884	1,790	942	1,695	942	18,178
29	1,951	3,902	1,561	3,902	1,951	1,853	976	1,756	976	18,827
30	2,018	4,037	1,615	4,037	2,018	1,917	1,009	1,816	1,009	19,477
31	2,086	4,171	1,668	4,171	2,086	1,981	1,043	1,877	1,043	20,126
32	2,153	4,306	1,722	4,306	2,153	2,045	1,076	1,938	1,076	20,775
33	2,220	4,440	1,776	4,440	2,220	2,109	1,110	1,998	1,110	21,424
34	2,287	4,575	1,830	4,575	2,287	2,173	1,144	2,059	1,144	22,074
35	2,355	4,709	1,884	4,709	2,355	2,237	1,177	2,119	1,177	22,723
36	2,422	4,844	1,938	4,844	2,422	2,301	1,211	2,180	1,211	23,372
37	2,489	4,978	1,991	4,978	2,489	2,365	1,245	2,240	1,245	24,021
38	2,557	5,113	2,045	5,113	2,557	2,429	1,278	2,301	1,278	24,670
39	2,624	5,248	2,099	5,248	2,624	2,493	1,312	2,361	1,312	25,320
40	2,691	5,382	2,153	5,382	2,691	2,557	1,346	2,422	1,346	25,969

HUC 12 # 102702050301 Annual Phosphorus Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	114	228	91	228	114	108	57	103	57	1,102
2	228	457	183	457	228	217	114	206	114	2,204
3	343	685	274	685	343	325	171	308	171	3,306
4	457	914	365	914	457	434	228	411	228	4,408
5	571	1,142	457	1,142	571	542	286	514	286	5,510
6	685	1,370	548	1,370	685	651	343	617	343	6,612
7	799	1,599	640	1,599	799	759	400	719	400	7,714
8	914	1,827	731	1,827	914	868	457	822	457	8,816
9	1,028	2,056	822	2,056	1,028	976	514	925	514	9,918
10	1,142	2,284	914	2,284	1,142	1,085	571	1,028	571	11,021
11	1,256	2,512	1,005	2,512	1,256	1,193	628	1,131	628	12,123
12	1,370	2,741	1,096	2,741	1,370	1,302	685	1,233	685	13,225
13	1,485	2,969	1,188	2,969	1,485	1,410	742	1,336	742	14,327
14	1,599	3,198	1,279	3,198	1,599	1,519	799	1,439	799	15,429
15	1,713	3,426	1,370	3,426	1,713	1,627	857	1,542	857	16,531
16	1,827	3,654	1,462	3,654	1,827	1,736	914	1,645	914	17,633
17	1,941	3,883	1,553	3,883	1,941	1,844	971	1,747	971	18,735
18	2,056	4,111	1,645	4,111	2,056	1,953	1,028	1,850	1,028	19,837
19	2,170	4,340	1,736	4,340	2,170	2,061	1,085	1,953	1,085	20,939
20	2,284	4,568	1,827	4,568	2,284	2,170	1,142	2,056	1,142	22,041
21	2,398	4,797	1,919	4,797	2,398	2,278	1,199	2,158	1,199	23,143
22	2,512	5,025	2,010	5,025	2,512	2,387	1,256	2,261	1,256	24,245
23	2,627	5,253	2,101	5,253	2,627	2,495	1,313	2,364	1,313	25,347
24	2,741	5,482	2,193	5,482	2,741	2,604	1,370	2,467	1,370	26,449
25	2,855	5,710	2,284	5,710	2,855	2,712	1,428	2,570	1,428	27,551
26	2,969	5,939	2,375	5,939	2,969	2,821	1,485	2,672	1,485	28,653
27	3,083	6,167	2,467	6,167	3,083	2,929	1,542	2,775	1,542	29,755
28	3,198	6,395	2,558	6,395	3,198	3,038	1,599	2,878	1,599	30,858
29	3,312	6,624	2,649	6,624	3,312	3,146	1,656	2,981	1,656	31,960
30	3,426	6,852	2,741	6,852	3,426	3,255	1,713	3,083	1,713	33,062
31	3,540	7,081	2,832	7,081	3,540	3,363	1,770	3,186	1,770	34,164
32	3,654	7,309	2,924	7,309	3,654	3,472	1,827	3,289	1,827	35,266
33	3,769	7,537	3,015	7,537	3,769	3,580	1,884	3,392	1,884	36,368
34	3,883	7,766	3,106	7,766	3,883	3,689	1,941	3,495	1,941	37,470
35	3,997	7,994	3,198	7,994	3,997	3,797	1,999	3,597	1,999	38,572
36	4,111	8,223	3,289	8,223	4,111	3,906	2,056	3,700	2,056	39,674
37	4,225	8,451	3,380	8,451	4,225	4,014	2,113	3,803	2,113	40,776
38	4,340	8,679	3,472	8,679	4,340	4,123	2,170	3,906	2,170	41,878
39	4,454	8,908	3,563	8,908	4,454	4,231	2,227	4,009	2,227	42,980
40	4,568	9,136	3,654	9,136	4,568	4,340	2,284	4,111	2,284	44,082

HUC 12 # 102702050302 Annual Phosphorus Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	102	205	82	205	102	97	51	92	51	987
2	205	409	164	409	205	194	102	184	102	1,975
3	307	614	246	614	307	292	153	276	153	2,962
4	409	819	327	819	409	389	205	368	205	3,950
5	512	1,023	409	1,023	512	486	256	460	256	4,937
6	614	1,228	491	1,228	614	583	307	553	307	5,925
7	716	1,433	573	1,433	716	680	358	645	358	6,912
8	819	1,637	655	1,637	819	778	409	737	409	7,900
9	921	1,842	737	1,842	921	875	460	829	460	8,887
10	1,023	2,047	819	2,047	1,023	972	512	921	512	9,874
11	1,126	2,251	900	2,251	1,126	1,069	563	1,013	563	10,862
12	1,228	2,456	982	2,456	1,228	1,167	614	1,105	614	11,849
13	1,330	2,660	1,064	2,660	1,330	1,264	665	1,197	665	12,837
14	1,433	2,865	1,146	2,865	1,433	1,361	716	1,289	716	13,824
15	1,535	3,070	1,228	3,070	1,535	1,458	767	1,381	767	14,812
16	1,637	3,274	1,310	3,274	1,637	1,555	819	1,473	819	15,799
17	1,740	3,479	1,392	3,479	1,740	1,653	870	1,566	870	16,787
18	1,842	3,684	1,473	3,684	1,842	1,750	921	1,658	921	17,774
19	1,944	3,888	1,555	3,888	1,944	1,847	972	1,750	972	18,762
20	2,047	4,093	1,637	4,093	2,047	1,944	1,023	1,842	1,023	19,749
21	2,149	4,298	1,719	4,298	2,149	2,041	1,074	1,934	1,074	20,736
22	2,251	4,502	1,801	4,502	2,251	2,139	1,126	2,026	1,126	21,724
23	2,354	4,707	1,883	4,707	2,354	2,236	1,177	2,118	1,177	22,711
24	2,456	4,912	1,965	4,912	2,456	2,333	1,228	2,210	1,228	23,699
25	2,558	5,116	2,047	5,116	2,558	2,430	1,279	2,302	1,279	24,686
26	2,660	5,321	2,128	5,321	2,660	2,527	1,330	2,394	1,330	25,674
27	2,763	5,526	2,210	5,526	2,763	2,625	1,381	2,487	1,381	26,661
28	2,865	5,730	2,292	5,730	2,865	2,722	1,433	2,579	1,433	27,649
29	2,967	5,935	2,374	5,935	2,967	2,819	1,484	2,671	1,484	28,636
30	3,070	6,140	2,456	6,140	3,070	2,916	1,535	2,763	1,535	29,623
31	3,172	6,344	2,538	6,344	3,172	3,014	1,586	2,855	1,586	30,611
32	3,274	6,549	2,620	6,549	3,274	3,111	1,637	2,947	1,637	31,598
33	3,377	6,754	2,701	6,754	3,377	3,208	1,688	3,039	1,688	32,586
34	3,479	6,958	2,783	6,958	3,479	3,305	1,740	3,131	1,740	33,573
35	3,581	7,163	2,865	7,163	3,581	3,402	1,791	3,223	1,791	34,561
36	3,684	7,367	2,947	7,367	3,684	3,500	1,842	3,315	1,842	35,548
37	3,786	7,572	3,029	7,572	3,786	3,597	1,893	3,407	1,893	36,536
38	3,888	7,777	3,111	7,777	3,888	3,694	1,944	3,500	1,944	37,523
39	3,991	7,981	3,193	7,981	3,991	3,791	1,995	3,592	1,995	38,510
40	4,093	8,186	3,274	8,186	4,093	3,888	2,047	3,684	2,047	39,498

HUC 12 # 102702050306 Annual Phosphorus Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	41	82	33	82	41	39	20	37	20	395
2	82	164	66	164	82	78	41	74	41	790
3	123	246	98	246	123	117	61	111	61	1,185
4	164	328	131	328	164	156	82	147	82	1,580
5	205	409	164	409	205	194	102	184	102	1,975
6	246	491	197	491	246	233	123	221	123	2,370
7	287	573	229	573	287	272	143	258	143	2,765
8	328	655	262	655	328	311	164	295	164	3,161
9	368	737	295	737	368	350	184	332	184	3,556
10	409	819	328	819	409	389	205	368	205	3,951
11	450	901	360	901	450	428	225	405	225	4,346
12	491	983	393	983	491	467	246	442	246	4,741
13	532	1,064	426	1,064	532	506	266	479	266	5,136
14	573	1,146	459	1,146	573	544	287	516	287	5,531
15	614	1,228	491	1,228	614	583	307	553	307	5,926
16	655	1,310	524	1,310	655	622	328	590	328	6,321
17	696	1,392	557	1,392	696	661	348	626	348	6,716
18	737	1,474	590	1,474	737	700	368	663	368	7,111
19	778	1,556	622	1,556	778	739	389	700	389	7,506
20	819	1,638	655	1,638	819	778	409	737	409	7,901
21	860	1,719	688	1,719	860	817	430	774	430	8,296
22	901	1,801	721	1,801	901	856	450	811	450	8,691
23	942	1,883	753	1,883	942	895	471	847	471	9,086
24	983	1,965	786	1,965	983	933	491	884	491	9,482
25	1,023	2,047	819	2,047	1,023	972	512	921	512	9,877
26	1,064	2,129	852	2,129	1,064	1,011	532	958	532	10,272
27	1,105	2,211	884	2,211	1,105	1,050	553	995	553	10,667
28	1,146	2,293	917	2,293	1,146	1,089	573	1,032	573	11,062
29	1,187	2,374	950	2,374	1,187	1,128	594	1,069	594	11,457
30	1,228	2,456	983	2,456	1,228	1,167	614	1,105	614	11,852
31	1,269	2,538	1,015	2,538	1,269	1,206	635	1,142	635	12,247
32	1,310	2,620	1,048	2,620	1,310	1,245	655	1,179	655	12,642
33	1,351	2,702	1,081	2,702	1,351	1,283	675	1,216	675	13,037
34	1,392	2,784	1,114	2,784	1,392	1,322	696	1,253	696	13,432
35	1,433	2,866	1,146	2,866	1,433	1,361	716	1,290	716	13,827
36	1,474	2,948	1,179	2,948	1,474	1,400	737	1,326	737	14,222
37	1,515	3,030	1,212	3,030	1,515	1,439	757	1,363	757	14,617
38	1,556	3,111	1,245	3,111	1,556	1,478	778	1,400	778	15,012
39	1,597	3,193	1,277	3,193	1,597	1,517	798	1,437	798	15,408
40	1,638	3,275	1,310	3,275	1,638	1,556	819	1,474	819	15,803

HUC 12 # 102702050401 Annual Phosphorus Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	70	140	56	140	70	66	35	63	35	675
2	140	280	112	280	140	133	70	126	70	1,350
3	210	420	168	420	210	199	105	189	105	2,025
4	280	559	224	559	280	266	140	252	140	2,700
5	350	699	280	699	350	332	175	315	175	3,374
6	420	839	336	839	420	399	210	378	210	4,049
7	490	979	392	979	490	465	245	441	245	4,724
8	559	1,119	448	1,119	559	532	280	504	280	5,399
9	629	1,259	504	1,259	629	598	315	566	315	6,074
10	699	1,399	559	1,399	699	664	350	629	350	6,749
11	769	1,539	615	1,539	769	731	385	692	385	7,424
12	839	1,678	671	1,678	839	797	420	755	420	8,099
13	909	1,818	727	1,818	909	864	455	818	455	8,773
14	979	1,958	783	1,958	979	930	490	881	490	9,448
15	1,049	2,098	839	2,098	1,049	997	525	944	525	10,123
16	1,119	2,238	895	2,238	1,119	1,063	559	1,007	559	10,798
17	1,189	2,378	951	2,378	1,189	1,129	594	1,070	594	11,473
18	1,259	2,518	1,007	2,518	1,259	1,196	629	1,133	629	12,148
19	1,329	2,658	1,063	2,658	1,329	1,262	664	1,196	664	12,823
20	1,399	2,797	1,119	2,797	1,399	1,329	699	1,259	699	13,498
21	1,469	2,937	1,175	2,937	1,469	1,395	734	1,322	734	14,172
22	1,539	3,077	1,231	3,077	1,539	1,462	769	1,385	769	14,847
23	1,609	3,217	1,287	3,217	1,609	1,528	804	1,448	804	15,522
24	1,678	3,357	1,343	3,357	1,678	1,595	839	1,511	839	16,197
25	1,748	3,497	1,399	3,497	1,748	1,661	874	1,574	874	16,872
26	1,818	3,637	1,455	3,637	1,818	1,727	909	1,636	909	17,547
27	1,888	3,777	1,511	3,777	1,888	1,794	944	1,699	944	18,222
28	1,958	3,916	1,567	3,916	1,958	1,860	979	1,762	979	18,897
29	2,028	4,056	1,623	4,056	2,028	1,927	1,014	1,825	1,014	19,571
30	2,098	4,196	1,678	4,196	2,098	1,993	1,049	1,888	1,049	20,246
31	2,168	4,336	1,734	4,336	2,168	2,060	1,084	1,951	1,084	20,921
32	2,238	4,476	1,790	4,476	2,238	2,126	1,119	2,014	1,119	21,596
33	2,308	4,616	1,846	4,616	2,308	2,192	1,154	2,077	1,154	22,271
34	2,378	4,756	1,902	4,756	2,378	2,259	1,189	2,140	1,189	22,946
35	2,448	4,895	1,958	4,895	2,448	2,325	1,224	2,203	1,224	23,621
36	2,518	5,035	2,014	5,035	2,518	2,392	1,259	2,266	1,259	24,296
37	2,588	5,175	2,070	5,175	2,588	2,458	1,294	2,329	1,294	24,970
38	2,658	5,315	2,126	5,315	2,658	2,525	1,329	2,392	1,329	25,645
39	2,727	5,455	2,182	5,455	2,727	2,591	1,364	2,455	1,364	26,320
40	2,797	5,595	2,238	5,595	2,797	2,658	1,399	2,518	1,399	26,995

HUC 12 # 102702050402 Annual Phosphorus Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	34	68	27	68	34	32	17	31	17	327
2	68	136	54	136	68	64	34	61	34	654
3	102	203	81	203	102	97	51	92	51	981
4	136	271	108	271	136	129	68	122	68	1,308
5	169	339	136	339	169	161	85	153	85	1,636
6	203	407	163	407	203	193	102	183	102	1,963
7	237	475	190	475	237	225	119	214	119	2,290
8	271	542	217	542	271	258	136	244	136	2,617
9	305	610	244	610	305	290	153	275	153	2,944
10	339	678	271	678	339	322	169	305	169	3,271
11	373	746	298	746	373	354	186	336	186	3,598
12	407	814	325	814	407	386	203	366	203	3,925
13	441	881	353	881	441	419	220	397	220	4,253
14	475	949	380	949	475	451	237	427	237	4,580
15	508	1,017	407	1,017	508	483	254	458	254	4,907
16	542	1,085	434	1,085	542	515	271	488	271	5,234
17	576	1,153	461	1,153	576	547	288	519	288	5,561
18	610	1,220	488	1,220	610	580	305	549	305	5,888
19	644	1,288	515	1,288	644	612	322	580	322	6,215
20	678	1,356	542	1,356	678	644	339	610	339	6,542
21	712	1,424	570	1,424	712	676	356	641	356	6,870
22	746	1,492	597	1,492	746	708	373	671	373	7,197
23	780	1,559	624	1,559	780	741	390	702	390	7,524
24	814	1,627	651	1,627	814	773	407	732	407	7,851
25	847	1,695	678	1,695	847	805	424	763	424	8,178
26	881	1,763	705	1,763	881	837	441	793	441	8,505
27	915	1,831	732	1,831	915	870	458	824	458	8,832
28	949	1,898	759	1,898	949	902	475	854	475	9,159
29	983	1,966	786	1,966	983	934	492	885	492	9,487
30	1,017	2,034	814	2,034	1,017	966	508	915	508	9,814
31	1,051	2,102	841	2,102	1,051	998	525	946	525	10,141
32	1,085	2,170	868	2,170	1,085	1,031	542	976	542	10,468
33	1,119	2,237	895	2,237	1,119	1,063	559	1,007	559	10,795
34	1,153	2,305	922	2,305	1,153	1,095	576	1,037	576	11,122
35	1,186	2,373	949	2,373	1,186	1,127	593	1,068	593	11,449
36	1,220	2,441	976	2,441	1,220	1,159	610	1,098	610	11,776
37	1,254	2,509	1,003	2,509	1,254	1,192	627	1,129	627	12,104
38	1,288	2,576	1,031	2,576	1,288	1,224	644	1,159	644	12,431
39	1,322	2,644	1,058	2,644	1,322	1,256	661	1,190	661	12,758
40	1,356	2,712	1,085	2,712	1,356	1,288	678	1,220	678	13,085

HUC 12 # 102702050403 Annual Phosphorus Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	41	82	33	82	41	39	21	37	21	397
2	82	165	66	165	82	78	41	74	41	795
3	124	247	99	247	124	117	62	111	62	1,192
4	165	330	132	330	165	157	82	148	82	1,590
5	206	412	165	412	206	196	103	185	103	1,987
6	247	494	198	494	247	235	124	222	124	2,385
7	288	577	231	577	288	274	144	260	144	2,782
8	330	659	264	659	330	313	165	297	165	3,180
9	371	741	297	741	371	352	185	334	185	3,577
10	412	824	330	824	412	391	206	371	206	3,975
11	453	906	362	906	453	430	227	408	227	4,372
12	494	989	395	989	494	470	247	445	247	4,770
13	535	1,071	428	1,071	535	509	268	482	268	5,167
14	577	1,153	461	1,153	577	548	288	519	288	5,565
15	618	1,236	494	1,236	618	587	309	556	309	5,962
16	659	1,318	527	1,318	659	626	330	593	330	6,360
17	700	1,401	560	1,401	700	665	350	630	350	6,757
18	741	1,483	593	1,483	741	704	371	667	371	7,155
19	783	1,565	626	1,565	783	744	391	704	391	7,552
20	824	1,648	659	1,648	824	783	412	741	412	7,950
21	865	1,730	692	1,730	865	822	433	779	433	8,347
22	906	1,812	725	1,812	906	861	453	816	453	8,745
23	947	1,895	758	1,895	947	900	474	853	474	9,142
24	989	1,977	791	1,977	989	939	494	890	494	9,540
25	1,030	2,060	824	2,060	1,030	978	515	927	515	9,937
26	1,071	2,142	857	2,142	1,071	1,017	535	964	535	10,335
27	1,112	2,224	890	2,224	1,112	1,057	556	1,001	556	10,732
28	1,153	2,307	923	2,307	1,153	1,096	577	1,038	577	11,130
29	1,195	2,389	956	2,389	1,195	1,135	597	1,075	597	11,527
30	1,236	2,471	989	2,471	1,236	1,174	618	1,112	618	11,925
31	1,277	2,554	1,022	2,554	1,277	1,213	638	1,149	638	12,322
32	1,318	2,636	1,055	2,636	1,318	1,252	659	1,186	659	12,720
33	1,359	2,719	1,087	2,719	1,359	1,291	680	1,223	680	13,117
34	1,401	2,801	1,120	2,801	1,401	1,330	700	1,260	700	13,515
35	1,442	2,883	1,153	2,883	1,442	1,370	721	1,298	721	13,912
36	1,483	2,966	1,186	2,966	1,483	1,409	741	1,335	741	14,310
37	1,524	3,048	1,219	3,048	1,524	1,448	762	1,372	762	14,707
38	1,565	3,131	1,252	3,131	1,565	1,487	783	1,409	783	15,105
39	1,606	3,213	1,285	3,213	1,606	1,526	803	1,446	803	15,502
40	1,648	3,295	1,318	3,295	1,648	1,565	824	1,483	824	15,900

HUC 12 # 102702050501 Annual Phosphorus Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	89	178	71	178	89	85	45	80	45	859
2	178	356	142	356	178	169	89	160	89	1,718
3	267	534	214	534	267	254	134	240	134	2,577
4	356	712	285	712	356	338	178	321	178	3,436
5	445	890	356	890	445	423	223	401	223	4,296
6	534	1,068	427	1,068	534	507	267	481	267	5,155
7	623	1,246	499	1,246	623	592	312	561	312	6,014
8	712	1,424	570	1,424	712	677	356	641	356	6,873
9	801	1,603	641	1,603	801	761	401	721	401	7,732
10	890	1,781	712	1,781	890	846	445	801	445	8,591
11	979	1,959	783	1,959	979	930	490	881	490	9,450
12	1,068	2,137	855	2,137	1,068	1,015	534	962	534	10,309
13	1,157	2,315	926	2,315	1,157	1,099	579	1,042	579	11,169
14	1,246	2,493	997	2,493	1,246	1,184	623	1,122	623	12,028
15	1,335	2,671	1,068	2,671	1,335	1,269	668	1,202	668	12,887
16	1,424	2,849	1,140	2,849	1,424	1,353	712	1,282	712	13,746
17	1,513	3,027	1,211	3,027	1,513	1,438	757	1,362	757	14,605
18	1,603	3,205	1,282	3,205	1,603	1,522	801	1,442	801	15,464
19	1,692	3,383	1,353	3,383	1,692	1,607	846	1,522	846	16,323
20	1,781	3,561	1,424	3,561	1,781	1,692	890	1,603	890	17,182
21	1,870	3,739	1,496	3,739	1,870	1,776	935	1,683	935	18,041
22	1,959	3,917	1,567	3,917	1,959	1,861	979	1,763	979	18,901
23	2,048	4,095	1,638	4,095	2,048	1,945	1,024	1,843	1,024	19,760
24	2,137	4,273	1,709	4,273	2,137	2,030	1,068	1,923	1,068	20,619
25	2,226	4,451	1,781	4,451	2,226	2,114	1,113	2,003	1,113	21,478
26	2,315	4,629	1,852	4,629	2,315	2,199	1,157	2,083	1,157	22,337
27	2,404	4,808	1,923	4,808	2,404	2,284	1,202	2,163	1,202	23,196
28	2,493	4,986	1,994	4,986	2,493	2,368	1,246	2,244	1,246	24,055
29	2,582	5,164	2,065	5,164	2,582	2,453	1,291	2,324	1,291	24,914
30	2,671	5,342	2,137	5,342	2,671	2,537	1,335	2,404	1,335	25,774
31	2,760	5,520	2,208	5,520	2,760	2,622	1,380	2,484	1,380	26,633
32	2,849	5,698	2,279	5,698	2,849	2,706	1,424	2,564	1,424	27,492
33	2,938	5,876	2,350	5,876	2,938	2,791	1,469	2,644	1,469	28,351
34	3,027	6,054	2,422	6,054	3,027	2,876	1,513	2,724	1,513	29,210
35	3,116	6,232	2,493	6,232	3,116	2,960	1,558	2,804	1,558	30,069
36	3,205	6,410	2,564	6,410	3,205	3,045	1,603	2,885	1,603	30,928
37	3,294	6,588	2,635	6,588	3,294	3,129	1,647	2,965	1,647	31,787
38	3,383	6,766	2,706	6,766	3,383	3,214	1,692	3,045	1,692	32,646
39	3,472	6,944	2,778	6,944	3,472	3,298	1,736	3,125	1,736	33,506
40	3,561	7,122	2,849	7,122	3,561	3,383	1,781	3,205	1,781	34,365

c. Mainstem Targeted Areas plus Riparian Corridors

HUC 12 # 102702050406 Annual Phosphorus Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	30	59	24	59	30	28	15	27	15	286
2	59	118	47	118	59	56	30	53	30	571
3	89	178	71	178	89	84	44	80	44	857
4	118	237	95	237	118	112	59	107	59	1,142
5	148	296	118	296	148	141	74	133	74	1,428
6	178	355	142	355	178	169	89	160	89	1,714
7	207	414	166	414	207	197	104	186	104	1,999
8	237	474	189	474	237	225	118	213	118	2,285
9	266	533	213	533	266	253	133	240	133	2,571
10	296	592	237	592	296	281	148	266	148	2,856
11	326	651	260	651	326	309	163	293	163	3,142
12	355	710	284	710	355	337	178	320	178	3,427
13	385	770	308	770	385	366	192	346	192	3,713
14	414	829	331	829	414	394	207	373	207	3,999
15	444	888	355	888	444	422	222	400	222	4,284
16	474	947	379	947	474	450	237	426	237	4,570
17	503	1,006	403	1,006	503	478	252	453	252	4,856
18	533	1,066	426	1,066	533	506	266	479	266	5,141
19	562	1,125	450	1,125	562	534	281	506	281	5,427
20	592	1,184	474	1,184	592	562	296	533	296	5,712
21	622	1,243	497	1,243	622	590	311	559	311	5,998
22	651	1,302	521	1,302	651	619	326	586	326	6,284
23	681	1,362	545	1,362	681	647	340	613	340	6,569
24	710	1,421	568	1,421	710	675	355	639	355	6,855
25	740	1,480	592	1,480	740	703	370	666	370	7,141
26	770	1,539	616	1,539	770	731	385	693	385	7,426
27	799	1,598	639	1,598	799	759	400	719	400	7,712
28	829	1,657	663	1,657	829	787	414	746	414	7,997
29	858	1,717	687	1,717	858	815	429	773	429	8,283
30	888	1,776	710	1,776	888	844	444	799	444	8,569
31	918	1,835	734	1,835	918	872	459	826	459	8,854
32	947	1,894	758	1,894	947	900	474	852	474	9,140
33	977	1,953	781	1,953	977	928	488	879	488	9,425
34	1,006	2,013	805	2,013	1,006	956	503	906	503	9,711
35	1,036	2,072	829	2,072	1,036	984	518	932	518	9,997
36	1,066	2,131	852	2,131	1,066	1,012	533	959	533	10,282
37	1,095	2,190	876	2,190	1,095	1,040	548	986	548	10,568
38	1,125	2,249	900	2,249	1,125	1,068	562	1,012	562	10,854
39	1,154	2,309	923	2,309	1,154	1,097	577	1,039	577	11,139
40	1,184	2,368	947	2,368	1,184	1,125	592	1,066	592	11,425

HUC 12 # 102702050502 Annual Phosphorus Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	48	95	38	95	48	45	24	43	24	459
2	95	190	76	190	95	90	48	86	48	917
3	143	285	114	285	143	135	71	128	71	1,376
4	190	380	152	380	190	181	95	171	95	1,835
5	238	475	190	475	238	226	119	214	119	2,293
6	285	570	228	570	285	271	143	257	143	2,752
7	333	665	266	665	333	316	166	299	166	3,211
8	380	761	304	761	380	361	190	342	190	3,669
9	428	856	342	856	428	406	214	385	214	4,128
10	475	951	380	951	475	452	238	428	238	4,587
11	523	1,046	418	1,046	523	497	261	471	261	5,046
12	570	1,141	456	1,141	570	542	285	513	285	5,504
13	618	1,236	494	1,236	618	587	309	556	309	5,963
14	665	1,331	532	1,331	665	632	333	599	333	6,422
15	713	1,426	570	1,426	713	677	356	642	356	6,880
16	761	1,521	608	1,521	761	722	380	684	380	7,339
17	808	1,616	646	1,616	808	768	404	727	404	7,798
18	856	1,711	684	1,711	856	813	428	770	428	8,256
19	903	1,806	722	1,806	903	858	452	813	452	8,715
20	951	1,901	761	1,901	951	903	475	856	475	9,174
21	998	1,996	799	1,996	998	948	499	898	499	9,632
22	1,046	2,091	837	2,091	1,046	993	523	941	523	10,091
23	1,093	2,186	875	2,186	1,093	1,039	547	984	547	10,550
24	1,141	2,282	913	2,282	1,141	1,084	570	1,027	570	11,008
25	1,188	2,377	951	2,377	1,188	1,129	594	1,069	594	11,467
26	1,236	2,472	989	2,472	1,236	1,174	618	1,112	618	11,926
27	1,283	2,567	1,027	2,567	1,283	1,219	642	1,155	642	12,384
28	1,331	2,662	1,065	2,662	1,331	1,264	665	1,198	665	12,843
29	1,378	2,757	1,103	2,757	1,378	1,310	689	1,241	689	13,302
30	1,426	2,852	1,141	2,852	1,426	1,355	713	1,283	713	13,760
31	1,473	2,947	1,179	2,947	1,473	1,400	737	1,326	737	14,219
32	1,521	3,042	1,217	3,042	1,521	1,445	761	1,369	761	14,678
33	1,569	3,137	1,255	3,137	1,569	1,490	784	1,412	784	15,137
34	1,616	3,232	1,293	3,232	1,616	1,535	808	1,454	808	15,595
35	1,664	3,327	1,331	3,327	1,664	1,580	832	1,497	832	16,054
36	1,711	3,422	1,369	3,422	1,711	1,626	856	1,540	856	16,513
37	1,759	3,517	1,407	3,517	1,759	1,671	879	1,583	879	16,971
38	1,806	3,612	1,445	3,612	1,806	1,716	903	1,626	903	17,430
39	1,854	3,707	1,483	3,707	1,854	1,761	927	1,668	927	17,889
40	1,901	3,803	1,521	3,803	1,901	1,806	951	1,711	951	18,347

HUC 12 # 102702050503 Annual Phosphorus Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	9	19	8	19	9	9	5	8	5	91
2	19	38	15	38	19	18	9	17	9	182
3	28	57	23	57	28	27	14	25	14	273
4	38	75	30	75	38	36	19	34	19	364
5	47	94	38	94	47	45	24	42	24	455
6	57	113	45	113	57	54	28	51	28	546
7	66	132	53	132	66	63	33	59	33	637
8	75	151	60	151	75	72	38	68	38	728
9	85	170	68	170	85	81	42	76	42	819
10	94	189	75	189	94	90	47	85	47	910
11	104	208	83	208	104	99	52	93	52	1,001
12	113	226	91	226	113	108	57	102	57	1,092
13	123	245	98	245	123	117	61	110	61	1,184
14	132	264	106	264	132	125	66	119	66	1,275
15	142	283	113	283	142	134	71	127	71	1,366
16	151	302	121	302	151	143	75	136	75	1,457
17	160	321	128	321	160	152	80	144	80	1,548
18	170	340	136	340	170	161	85	153	85	1,639
19	179	359	143	359	179	170	90	161	90	1,730
20	189	377	151	377	189	179	94	170	94	1,821
21	198	396	158	396	198	188	99	178	99	1,912
22	208	415	166	415	208	197	104	187	104	2,003
23	217	434	174	434	217	206	108	195	108	2,094
24	226	453	181	453	226	215	113	204	113	2,185
25	236	472	189	472	236	224	118	212	118	2,276
26	245	491	196	491	245	233	123	221	123	2,367
27	255	509	204	509	255	242	127	229	127	2,458
28	264	528	211	528	264	251	132	238	132	2,549
29	274	547	219	547	274	260	137	246	137	2,640
30	283	566	226	566	283	269	142	255	142	2,731
31	292	585	234	585	292	278	146	263	146	2,822
32	302	604	242	604	302	287	151	272	151	2,913
33	311	623	249	623	311	296	156	280	156	3,004
34	321	642	257	642	321	305	160	289	160	3,095
35	330	660	264	660	330	314	165	297	165	3,186
36	340	679	272	679	340	323	170	306	170	3,277
37	349	698	279	698	349	332	175	314	175	3,369
38	359	717	287	717	359	341	179	323	179	3,460
39	368	736	294	736	368	350	184	331	184	3,551
40	377	755	302	755	377	359	189	340	189	3,642

HUC 12 # 102702050505 Annual Phosphorus Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	28	56	23	56	28	27	14	25	14	272
2	56	113	45	113	56	53	28	51	28	543
3	84	169	68	169	84	80	42	76	42	815
4	113	225	90	225	113	107	56	101	56	1,086
5	141	281	113	281	141	134	70	127	70	1,358
6	169	338	135	338	169	160	84	152	84	1,629
7	197	394	158	394	197	187	98	177	98	1,901
8	225	450	180	450	225	214	113	203	113	2,172
9	253	507	203	507	253	241	127	228	127	2,444
10	281	563	225	563	281	267	141	253	141	2,716
11	310	619	248	619	310	294	155	279	155	2,987
12	338	675	270	675	338	321	169	304	169	3,259
13	366	732	293	732	366	348	183	329	183	3,530
14	394	788	315	788	394	374	197	355	197	3,802
15	422	844	338	844	422	401	211	380	211	4,073
16	450	900	360	900	450	428	225	405	225	4,345
17	478	957	383	957	478	454	239	431	239	4,616
18	507	1,013	405	1,013	507	481	253	456	253	4,888
19	535	1,069	428	1,069	535	508	267	481	267	5,159
20	563	1,126	450	1,126	563	535	281	507	281	5,431
21	591	1,182	473	1,182	591	561	295	532	295	5,703
22	619	1,238	495	1,238	619	588	310	557	310	5,974
23	647	1,294	518	1,294	647	615	324	582	324	6,246
24	675	1,351	540	1,351	675	642	338	608	338	6,517
25	704	1,407	563	1,407	704	668	352	633	352	6,789
26	732	1,463	585	1,463	732	695	366	658	366	7,060
27	760	1,520	608	1,520	760	722	380	684	380	7,332
28	788	1,576	630	1,576	788	749	394	709	394	7,603
29	816	1,632	653	1,632	816	775	408	734	408	7,875
30	844	1,688	675	1,688	844	802	422	760	422	8,147
31	872	1,745	698	1,745	872	829	436	785	436	8,418
32	900	1,801	720	1,801	900	855	450	810	450	8,690
33	929	1,857	743	1,857	929	882	464	836	464	8,961
34	957	1,914	765	1,914	957	909	478	861	478	9,233
35	985	1,970	788	1,970	985	936	492	886	492	9,504
36	1,013	2,026	810	2,026	1,013	962	507	912	507	9,776
37	1,041	2,082	833	2,082	1,041	989	521	937	521	10,047
38	1,069	2,139	855	2,139	1,069	1,016	535	962	535	10,319
39	1,097	2,195	878	2,195	1,097	1,043	549	988	549	10,590
40	1,126	2,251	900	2,251	1,126	1,069	563	1,013	563	10,862

HUC 12 # 102702050506 Annual Phosphorus Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	17	34	13	34	17	16	8	15	8	162
2	34	67	27	67	34	32	17	30	17	324
3	50	101	40	101	50	48	25	45	25	486
4	67	134	54	134	67	64	34	60	34	648
5	84	168	67	168	84	80	42	75	42	809
6	101	201	81	201	101	96	50	91	50	971
7	117	235	94	235	117	112	59	106	59	1,133
8	134	268	107	268	134	127	67	121	67	1,295
9	151	302	121	302	151	143	75	136	75	1,457
10	168	335	134	335	168	159	84	151	84	1,619
11	185	369	148	369	185	175	92	166	92	1,781
12	201	403	161	403	201	191	101	181	101	1,943
13	218	436	174	436	218	207	109	196	109	2,104
14	235	470	188	470	235	223	117	211	117	2,266
15	252	503	201	503	252	239	126	226	126	2,428
16	268	537	215	537	268	255	134	242	134	2,590
17	285	570	228	570	285	271	143	257	143	2,752
18	302	604	242	604	302	287	151	272	151	2,914
19	319	637	255	637	319	303	159	287	159	3,076
20	335	671	268	671	335	319	168	302	168	3,238
21	352	705	282	705	352	335	176	317	176	3,399
22	369	738	295	738	369	351	185	332	185	3,561
23	386	772	309	772	386	367	193	347	193	3,723
24	403	805	322	805	403	382	201	362	201	3,885
25	419	839	335	839	419	398	210	377	210	4,047
26	436	872	349	872	436	414	218	393	218	4,209
27	453	906	362	906	453	430	226	408	226	4,371
28	470	939	376	939	470	446	235	423	235	4,533
29	486	973	389	973	486	462	243	438	243	4,694
30	503	1,006	403	1,006	503	478	252	453	252	4,856
31	520	1,040	416	1,040	520	494	260	468	260	5,018
32	537	1,074	429	1,074	537	510	268	483	268	5,180
33	554	1,107	443	1,107	554	526	277	498	277	5,342
34	570	1,141	456	1,141	570	542	285	513	285	5,504
35	587	1,174	470	1,174	587	558	294	528	294	5,666
36	604	1,208	483	1,208	604	574	302	543	302	5,828
37	621	1,241	497	1,241	621	590	310	559	310	5,989
38	637	1,275	510	1,275	637	606	319	574	319	6,151
39	654	1,308	523	1,308	654	621	327	589	327	6,313
40	671	1,342	537	1,342	671	637	335	604	335	6,475

Riparian Areas Annual Phosphorus Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	56	112	45	112	56	53	28	51	28	542
2	112	225	90	225	112	107	56	101	56	1,085
3	169	337	135	337	169	160	84	152	84	1,627
4	225	450	180	450	225	214	112	202	112	2,169
5	281	562	225	562	281	267	141	253	141	2,712
6	337	674	270	674	337	320	169	303	169	3,254
7	393	787	315	787	393	374	197	354	197	3,796
8	450	899	360	899	450	427	225	405	225	4,339
9	506	1,012	405	1,012	506	481	253	455	253	4,881
10	562	1,124	450	1,124	562	534	281	506	281	5,423
11	618	1,236	495	1,236	618	587	309	556	309	5,966
12	674	1,349	540	1,349	674	641	337	607	337	6,508
13	731	1,461	585	1,461	731	694	365	658	365	7,051
14	787	1,574	629	1,574	787	747	393	708	393	7,593
15	843	1,686	674	1,686	843	801	422	759	422	8,135
16	899	1,798	719	1,798	899	854	450	809	450	8,678
17	955	1,911	764	1,911	955	908	478	860	478	9,220
18	1,012	2,023	809	2,023	1,012	961	506	910	506	9,762
19	1,068	2,136	854	2,136	1,068	1,014	534	961	534	10,305
20	1,124	2,248	899	2,248	1,124	1,068	562	1,012	562	10,847
21	1,180	2,360	944	2,360	1,180	1,121	590	1,062	590	11,389
22	1,236	2,473	989	2,473	1,236	1,175	618	1,113	618	11,932
23	1,293	2,585	1,034	2,585	1,293	1,228	646	1,163	646	12,474
24	1,349	2,698	1,079	2,698	1,349	1,281	674	1,214	674	13,016
25	1,405	2,810	1,124	2,810	1,405	1,335	703	1,265	703	13,559
26	1,461	2,923	1,169	2,923	1,461	1,388	731	1,315	731	14,101
27	1,517	3,035	1,214	3,035	1,517	1,442	759	1,366	759	14,643
28	1,574	3,147	1,259	3,147	1,574	1,495	787	1,416	787	15,186
29	1,630	3,260	1,304	3,260	1,630	1,548	815	1,467	815	15,728
30	1,686	3,372	1,349	3,372	1,686	1,602	843	1,517	843	16,270
31	1,742	3,485	1,394	3,485	1,742	1,655	871	1,568	871	16,813
32	1,798	3,597	1,439	3,597	1,798	1,709	899	1,619	899	17,355
33	1,855	3,709	1,484	3,709	1,855	1,762	927	1,669	927	17,898
34	1,911	3,822	1,529	3,822	1,911	1,815	955	1,720	955	18,440
35	1,967	3,934	1,574	3,934	1,967	1,869	984	1,770	984	18,982
36	2,023	4,047	1,619	4,047	2,023	1,922	1,012	1,821	1,012	19,525
37	2,079	4,159	1,664	4,159	2,079	1,976	1,040	1,872	1,040	20,067
38	2,136	4,271	1,709	4,271	2,136	2,029	1,068	1,922	1,068	20,609
39	2,192	4,384	1,754	4,384	2,192	2,082	1,096	1,973	1,096	21,152
40	2,248	4,496	1,798	4,496	2,248	2,136	1,124	2,023	1,124	21,694

4. Cropland Load Reduction Tables by Sub-Watershed/Targeted Area: Nitrogen

a. Little Blue Targeted Areas

HUC 12 # 102702070505 Annual Nitrogen Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	77	154	123	192	154	146	108	138	77	1,169
2	154	308	246	385	308	292	215	277	154	2,339
3	231	462	369	577	462	438	323	415	231	3,508
4	308	615	492	769	615	585	431	554	308	4,677
5	385	769	615	962	769	731	538	692	385	5,846
6	462	923	738	1,154	923	877	646	831	462	7,016
7	538	1,077	862	1,346	1,077	1,023	754	969	538	8,185
8	615	1,231	985	1,539	1,231	1,169	862	1,108	615	9,354
9	692	1,385	1,108	1,731	1,385	1,315	969	1,246	692	10,524
10	769	1,539	1,231	1,923	1,539	1,462	1,077	1,385	769	11,693
11	846	1,692	1,354	2,115	1,692	1,608	1,185	1,523	846	12,862
12	923	1,846	1,477	2,308	1,846	1,754	1,292	1,662	923	14,031
13	1,000	2,000	1,600	2,500	2,000	1,900	1,400	1,800	1,000	15,201
14	1,077	2,154	1,723	2,692	2,154	2,046	1,508	1,939	1,077	16,370
15	1,154	2,308	1,846	2,885	2,308	2,192	1,615	2,077	1,154	17,539
16	1,231	2,462	1,969	3,077	2,462	2,339	1,723	2,215	1,231	18,708
17	1,308	2,615	2,092	3,269	2,615	2,485	1,831	2,354	1,308	19,878
18	1,385	2,769	2,215	3,462	2,769	2,631	1,939	2,492	1,385	21,047
19	1,462	2,923	2,339	3,654	2,923	2,777	2,046	2,631	1,462	22,216
20	1,539	3,077	2,462	3,846	3,077	2,923	2,154	2,769	1,539	23,386
21	1,615	3,231	2,585	4,039	3,231	3,069	2,262	2,908	1,615	24,555
22	1,692	3,385	2,708	4,231	3,385	3,216	2,369	3,046	1,692	25,724
23	1,769	3,539	2,831	4,423	3,539	3,362	2,477	3,185	1,769	26,893
24	1,846	3,692	2,954	4,616	3,692	3,508	2,585	3,323	1,846	28,063
25	1,923	3,846	3,077	4,808	3,846	3,654	2,692	3,462	1,923	29,232
26	2,000	4,000	3,200	5,000	4,000	3,800	2,800	3,600	2,000	30,401
27	2,077	4,154	3,323	5,193	4,154	3,946	2,908	3,739	2,077	31,571
28	2,154	4,308	3,446	5,385	4,308	4,092	3,016	3,877	2,154	32,740
29	2,231	4,462	3,569	5,577	4,462	4,239	3,123	4,016	2,231	33,909
30	2,308	4,616	3,692	5,769	4,616	4,385	3,231	4,154	2,308	35,078
31	2,385	4,769	3,816	5,962	4,769	4,531	3,339	4,292	2,385	36,248
32	2,462	4,923	3,939	6,154	4,923	4,677	3,446	4,431	2,462	37,417
33	2,539	5,077	4,062	6,346	5,077	4,823	3,554	4,569	2,539	38,586
34	2,615	5,231	4,185	6,539	5,231	4,969	3,662	4,708	2,615	39,756
35	2,692	5,385	4,308	6,731	5,385	5,116	3,769	4,846	2,692	40,925
36	2,769	5,539	4,431	6,923	5,539	5,262	3,877	4,985	2,769	42,094
37	2,846	5,693	4,554	7,116	5,693	5,408	3,985	5,123	2,846	43,263
38	2,923	5,846	4,677	7,308	5,846	5,554	4,092	5,262	2,923	44,433
39	3,000	6,000	4,800	7,500	6,000	5,700	4,200	5,400	3,000	45,602
40	3,077	6,154	4,923	7,693	6,154	5,846	4,308	5,539	3,077	46,771

HUC 12 # 102702070601 Annual Nitrogen Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	101	202	161	252	202	192	141	182	101	1,533
2	202	403	323	504	403	383	282	363	202	3,066
3	303	605	484	757	605	575	424	545	303	4,600
4	403	807	646	1,009	807	767	565	726	403	6,133
5	504	1,009	807	1,261	1,009	958	706	908	504	7,666
6	605	1,210	968	1,513	1,210	1,150	847	1,089	605	9,199
7	706	1,412	1,130	1,765	1,412	1,342	989	1,271	706	10,732
8	807	1,614	1,291	2,017	1,614	1,533	1,130	1,453	807	12,266
9	908	1,816	1,453	2,270	1,816	1,725	1,271	1,634	908	13,799
10	1,009	2,017	1,614	2,522	2,017	1,917	1,412	1,816	1,009	15,332
11	1,110	2,219	1,775	2,774	2,219	2,108	1,553	1,997	1,110	16,865
12	1,210	2,421	1,937	3,026	2,421	2,300	1,695	2,179	1,210	18,398
13	1,311	2,623	2,098	3,278	2,623	2,491	1,836	2,360	1,311	19,932
14	1,412	2,824	2,259	3,530	2,824	2,683	1,977	2,542	1,412	21,465
15	1,513	3,026	2,421	3,783	3,026	2,875	2,118	2,723	1,513	22,998
16	1,614	3,228	2,582	4,035	3,228	3,066	2,259	2,905	1,614	24,531
17	1,715	3,430	2,744	4,287	3,430	3,258	2,401	3,087	1,715	26,064
18	1,816	3,631	2,905	4,539	3,631	3,450	2,542	3,268	1,816	27,598
19	1,917	3,833	3,066	4,791	3,833	3,641	2,683	3,450	1,917	29,131
20	2,017	4,035	3,228	5,043	4,035	3,833	2,824	3,631	2,017	30,664
21	2,118	4,236	3,389	5,296	4,236	4,025	2,966	3,813	2,118	32,197
22	2,219	4,438	3,551	5,548	4,438	4,216	3,107	3,994	2,219	33,730
23	2,320	4,640	3,712	5,800	4,640	4,408	3,248	4,176	2,320	35,264
24	2,421	4,842	3,873	6,052	4,842	4,600	3,389	4,358	2,421	36,797
25	2,522	5,043	4,035	6,304	5,043	4,791	3,530	4,539	2,522	38,330
26	2,623	5,245	4,196	6,556	5,245	4,983	3,672	4,721	2,623	39,863
27	2,723	5,447	4,358	6,809	5,447	5,175	3,813	4,902	2,723	41,396
28	2,824	5,649	4,519	7,061	5,649	5,366	3,954	5,084	2,824	42,930
29	2,925	5,850	4,680	7,313	5,850	5,558	4,095	5,265	2,925	44,463
30	3,026	6,052	4,842	7,565	6,052	5,750	4,236	5,447	3,026	45,996
31	3,127	6,254	5,003	7,817	6,254	5,941	4,378	5,628	3,127	47,529
32	3,228	6,456	5,164	8,069	6,456	6,133	4,519	5,810	3,228	49,062
33	3,329	6,657	5,326	8,322	6,657	6,324	4,660	5,992	3,329	50,596
34	3,430	6,859	5,487	8,574	6,859	6,516	4,801	6,173	3,430	52,129
35	3,530	7,061	5,649	8,826	7,061	6,708	4,943	6,355	3,530	53,662
36	3,631	7,263	5,810	9,078	7,263	6,899	5,084	6,536	3,631	55,195
37	3,732	7,464	5,971	9,330	7,464	7,091	5,225	6,718	3,732	56,729
38	3,833	7,666	6,133	9,583	7,666	7,283	5,366	6,899	3,833	58,262
39	3,934	7,868	6,294	9,835	7,868	7,474	5,507	7,081	3,934	59,795
40	4,035	8,069	6,456	10,087	8,069	7,666	5,649	7,263	4,035	61,328

HUC 12 # 102702070602 Annual Nitrogen Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	69	138	111	173	138	131	97	124	69	1,051
2	138	277	221	346	277	263	194	249	138	2,102
3	207	415	332	519	415	394	290	373	207	3,153
4	277	553	442	691	553	525	387	498	277	4,203
5	346	691	553	864	691	657	484	622	346	5,254
6	415	830	664	1,037	830	788	581	747	415	6,305
7	484	968	774	1,210	968	920	678	871	484	7,356
8	553	1,106	885	1,383	1,106	1,051	774	996	553	8,407
9	622	1,244	996	1,556	1,244	1,182	871	1,120	622	9,458
10	691	1,383	1,106	1,728	1,383	1,314	968	1,244	691	10,509
11	761	1,521	1,217	1,901	1,521	1,445	1,065	1,369	761	11,560
12	830	1,659	1,327	2,074	1,659	1,576	1,161	1,493	830	12,610
13	899	1,798	1,438	2,247	1,798	1,708	1,258	1,618	899	13,661
14	968	1,936	1,549	2,420	1,936	1,839	1,355	1,742	968	14,712
15	1,037	2,074	1,659	2,593	2,074	1,970	1,452	1,867	1,037	15,763
16	1,106	2,212	1,770	2,765	2,212	2,102	1,549	1,991	1,106	16,814
17	1,175	2,351	1,881	2,938	2,351	2,233	1,645	2,116	1,175	17,865
18	1,244	2,489	1,991	3,111	2,489	2,364	1,742	2,240	1,244	18,916
19	1,314	2,627	2,102	3,284	2,627	2,496	1,839	2,364	1,314	19,967
20	1,383	2,765	2,212	3,457	2,765	2,627	1,936	2,489	1,383	21,017
21	1,452	2,904	2,323	3,630	2,904	2,759	2,033	2,613	1,452	22,068
22	1,521	3,042	2,434	3,803	3,042	2,890	2,129	2,738	1,521	23,119
23	1,590	3,180	2,544	3,975	3,180	3,021	2,226	2,862	1,590	24,170
24	1,659	3,319	2,655	4,148	3,319	3,153	2,323	2,987	1,659	25,221
25	1,728	3,457	2,765	4,321	3,457	3,284	2,420	3,111	1,728	26,272
26	1,798	3,595	2,876	4,494	3,595	3,415	2,517	3,236	1,798	27,323
27	1,867	3,733	2,987	4,667	3,733	3,547	2,613	3,360	1,867	28,374
28	1,936	3,872	3,097	4,840	3,872	3,678	2,710	3,484	1,936	29,424
29	2,005	4,010	3,208	5,012	4,010	3,809	2,807	3,609	2,005	30,475
30	2,074	4,148	3,319	5,185	4,148	3,941	2,904	3,733	2,074	31,526
31	2,143	4,286	3,429	5,358	4,286	4,072	3,001	3,858	2,143	32,577
32	2,212	4,425	3,540	5,531	4,425	4,203	3,097	3,982	2,212	33,628
33	2,282	4,563	3,650	5,704	4,563	4,335	3,194	4,107	2,282	34,679
34	2,351	4,701	3,761	5,877	4,701	4,466	3,291	4,231	2,351	35,730
35	2,420	4,840	3,872	6,049	4,840	4,598	3,388	4,356	2,420	36,781
36	2,489	4,978	3,982	6,222	4,978	4,729	3,484	4,480	2,489	37,831
37	2,558	5,116	4,093	6,395	5,116	4,860	3,581	4,604	2,558	38,882
38	2,627	5,254	4,203	6,568	5,254	4,992	3,678	4,729	2,627	39,933
39	2,696	5,393	4,314	6,741	5,393	5,123	3,775	4,853	2,696	40,984
40	2,765	5,531	4,425	6,914	5,531	5,254	3,872	4,978	2,765	42,035

HUC 12 # 102702070603 Annual Nitrogen Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	116	232	186	290	232	221	163	209	116	1,766
2	232	465	372	581	465	441	325	418	232	3,532
3	349	697	558	871	697	662	488	627	349	5,298
4	465	929	744	1,162	929	883	651	836	465	7,063
5	581	1,162	929	1,452	1,162	1,104	813	1,046	581	8,829
6	697	1,394	1,115	1,743	1,394	1,324	976	1,255	697	10,595
7	813	1,626	1,301	2,033	1,626	1,545	1,139	1,464	813	12,361
8	929	1,859	1,487	2,323	1,859	1,766	1,301	1,673	929	14,127
9	1,046	2,091	1,673	2,614	2,091	1,987	1,464	1,882	1,046	15,893
10	1,162	2,323	1,859	2,904	2,323	2,207	1,626	2,091	1,162	17,658
11	1,278	2,556	2,045	3,195	2,556	2,428	1,789	2,300	1,278	19,424
12	1,394	2,788	2,231	3,485	2,788	2,649	1,952	2,509	1,394	21,190
13	1,510	3,021	2,416	3,776	3,021	2,869	2,114	2,718	1,510	22,956
14	1,626	3,253	2,602	4,066	3,253	3,090	2,277	2,928	1,626	24,722
15	1,743	3,485	2,788	4,357	3,485	3,311	2,440	3,137	1,743	26,488
16	1,859	3,718	2,974	4,647	3,718	3,532	2,602	3,346	1,859	28,253
17	1,975	3,950	3,160	4,937	3,950	3,752	2,765	3,555	1,975	30,019
18	2,091	4,182	3,346	5,228	4,182	3,973	2,928	3,764	2,091	31,785
19	2,207	4,415	3,532	5,518	4,415	4,194	3,090	3,973	2,207	33,551
20	2,323	4,647	3,718	5,809	4,647	4,415	3,253	4,182	2,323	35,317
21	2,440	4,879	3,903	6,099	4,879	4,635	3,416	4,391	2,440	37,083
22	2,556	5,112	4,089	6,390	5,112	4,856	3,578	4,600	2,556	38,849
23	2,672	5,344	4,275	6,680	5,344	5,077	3,741	4,810	2,672	40,614
24	2,788	5,576	4,461	6,970	5,576	5,298	3,903	5,019	2,788	42,380
25	2,904	5,809	4,647	7,261	5,809	5,518	4,066	5,228	2,904	44,146
26	3,021	6,041	4,833	7,551	6,041	5,739	4,229	5,437	3,021	45,912
27	3,137	6,273	5,019	7,842	6,273	5,960	4,391	5,646	3,137	47,678
28	3,253	6,506	5,205	8,132	6,506	6,180	4,554	5,855	3,253	49,444
29	3,369	6,738	5,390	8,423	6,738	6,401	4,717	6,064	3,369	51,209
30	3,485	6,970	5,576	8,713	6,970	6,622	4,879	6,273	3,485	52,975
31	3,601	7,203	5,762	9,003	7,203	6,843	5,042	6,483	3,601	54,741
32	3,718	7,435	5,948	9,294	7,435	7,063	5,205	6,692	3,718	56,507
33	3,834	7,667	6,134	9,584	7,667	7,284	5,367	6,901	3,834	58,273
34	3,950	7,900	6,320	9,875	7,900	7,505	5,530	7,110	3,950	60,039
35	4,066	8,132	6,506	10,165	8,132	7,726	5,693	7,319	4,066	61,804
36	4,182	8,365	6,692	10,456	8,365	7,946	5,855	7,528	4,182	63,570
37	4,298	8,597	6,877	10,746	8,597	8,167	6,018	7,737	4,298	65,336
38	4,415	8,829	7,063	11,037	8,829	8,388	6,180	7,946	4,415	67,102
39	4,531	9,062	7,249	11,327	9,062	8,608	6,343	8,155	4,531	68,868
40	4,647	9,294	7,435	11,617	9,294	8,829	6,506	8,365	4,647	70,634

HUC 12 # 102702070606 Annual Nitrogen Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	152	304	243	380	304	288	213	273	152	2,308
2	304	607	486	759	607	577	425	547	304	4,616
3	455	911	729	1,139	911	865	638	820	455	6,923
4	607	1,215	972	1,518	1,215	1,154	850	1,093	607	9,231
5	759	1,518	1,215	1,898	1,518	1,442	1,063	1,366	759	11,539
6	911	1,822	1,458	2,277	1,822	1,731	1,275	1,640	911	13,847
7	1,063	2,126	1,700	2,657	2,126	2,019	1,488	1,913	1,063	16,154
8	1,215	2,429	1,943	3,037	2,429	2,308	1,700	2,186	1,215	18,462
9	1,366	2,733	2,186	3,416	2,733	2,596	1,913	2,460	1,366	20,770
10	1,518	3,037	2,429	3,796	3,037	2,885	2,126	2,733	1,518	23,078
11	1,670	3,340	2,672	4,175	3,340	3,173	2,338	3,006	1,670	25,386
12	1,822	3,644	2,915	4,555	3,644	3,462	2,551	3,279	1,822	27,693
13	1,974	3,948	3,158	4,934	3,948	3,750	2,763	3,553	1,974	30,001
14	2,126	4,251	3,401	5,314	4,251	4,039	2,976	3,826	2,126	32,309
15	2,277	4,555	3,644	5,694	4,555	4,327	3,188	4,099	2,277	34,617
16	2,429	4,858	3,887	6,073	4,858	4,616	3,401	4,373	2,429	36,925
17	2,581	5,162	4,130	6,453	5,162	4,904	3,614	4,646	2,581	39,232
18	2,733	5,466	4,373	6,832	5,466	5,193	3,826	4,919	2,733	41,540
19	2,885	5,769	4,616	7,212	5,769	5,481	4,039	5,193	2,885	43,848
20	3,037	6,073	4,858	7,591	6,073	5,769	4,251	5,466	3,037	46,156
21	3,188	6,377	5,101	7,971	6,377	6,058	4,464	5,739	3,188	48,463
22	3,340	6,680	5,344	8,351	6,680	6,346	4,676	6,012	3,340	50,771
23	3,492	6,984	5,587	8,730	6,984	6,635	4,889	6,286	3,492	53,079
24	3,644	7,288	5,830	9,110	7,288	6,923	5,101	6,559	3,644	55,387
25	3,796	7,591	6,073	9,489	7,591	7,212	5,314	6,832	3,796	57,695
26	3,948	7,895	6,316	9,869	7,895	7,500	5,527	7,106	3,948	60,002
27	4,099	8,199	6,559	10,248	8,199	7,789	5,739	7,379	4,099	62,310
28	4,251	8,502	6,802	10,628	8,502	8,077	5,952	7,652	4,251	64,618
29	4,403	8,806	7,045	11,008	8,806	8,366	6,164	7,925	4,403	66,926
30	4,555	9,110	7,288	11,387	9,110	8,654	6,377	8,199	4,555	69,233
31	4,707	9,413	7,531	11,767	9,413	8,943	6,589	8,472	4,707	71,541
32	4,858	9,717	7,774	12,146	9,717	9,231	6,802	8,745	4,858	73,849
33	5,010	10,021	8,017	12,526	10,021	9,520	7,014	9,019	5,010	76,157
34	5,162	10,324	8,259	12,905	10,324	9,808	7,227	9,292	5,162	78,465
35	5,314	10,628	8,502	13,285	10,628	10,097	7,440	9,565	5,314	80,772
36	5,466	10,932	8,745	13,664	10,932	10,385	7,652	9,838	5,466	83,080
37	5,618	11,235	8,988	14,044	11,235	10,673	7,865	10,112	5,618	85,388
38	5,769	11,539	9,231	14,424	11,539	10,962	8,077	10,385	5,769	87,696
39	5,921	11,843	9,474	14,803	11,843	11,250	8,290	10,658	5,921	90,003
40	6,073	12,146	9,717	15,183	12,146	11,539	8,502	10,932	6,073	92,311

b. Big Blue Targeted Areas

HUC 12 # 102702050201 Annual Nitrogen Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	187	373	299	466	373	355	261	336	187	2,836
2	373	746	597	933	746	709	522	672	373	5,672
3	560	1,120	896	1,399	1,120	1,064	784	1,008	560	8,509
4	746	1,493	1,194	1,866	1,493	1,418	1,045	1,343	746	11,345
5	933	1,866	1,493	2,332	1,866	1,773	1,306	1,679	933	14,181
6	1,120	2,239	1,791	2,799	2,239	2,127	1,567	2,015	1,120	17,017
7	1,306	2,612	2,090	3,265	2,612	2,482	1,829	2,351	1,306	19,853
8	1,493	2,985	2,388	3,732	2,985	2,836	2,090	2,687	1,493	22,689
9	1,679	3,359	2,687	4,198	3,359	3,191	2,351	3,023	1,679	25,526
10	1,866	3,732	2,985	4,665	3,732	3,545	2,612	3,359	1,866	28,362
11	2,053	4,105	3,284	5,131	4,105	3,900	2,874	3,695	2,053	31,198
12	2,239	4,478	3,583	5,598	4,478	4,254	3,135	4,030	2,239	34,034
13	2,426	4,851	3,881	6,064	4,851	4,609	3,396	4,366	2,426	36,870
14	2,612	5,225	4,180	6,531	5,225	4,963	3,657	4,702	2,612	39,707
15	2,799	5,598	4,478	6,997	5,598	5,318	3,918	5,038	2,799	42,543
16	2,985	5,971	4,777	7,464	5,971	5,672	4,180	5,374	2,985	45,379
17	3,172	6,344	5,075	7,930	6,344	6,027	4,441	5,710	3,172	48,215
18	3,359	6,717	5,374	8,397	6,717	6,381	4,702	6,046	3,359	51,051
19	3,545	7,090	5,672	8,863	7,090	6,736	4,963	6,381	3,545	53,888
20	3,732	7,464	5,971	9,330	7,464	7,090	5,225	6,717	3,732	56,724
21	3,918	7,837	6,269	9,796	7,837	7,445	5,486	7,053	3,918	59,560
22	4,105	8,210	6,568	10,263	8,210	7,800	5,747	7,389	4,105	62,396
23	4,292	8,583	6,867	10,729	8,583	8,154	6,008	7,725	4,292	65,232
24	4,478	8,956	7,165	11,195	8,956	8,509	6,269	8,061	4,478	68,068
25	4,665	9,330	7,464	11,662	9,330	8,863	6,531	8,397	4,665	70,905
26	4,851	9,703	7,762	12,128	9,703	9,218	6,792	8,732	4,851	73,741
27	5,038	10,076	8,061	12,595	10,076	9,572	7,053	9,068	5,038	76,577
28	5,225	10,449	8,359	13,061	10,449	9,927	7,314	9,404	5,225	79,413
29	5,411	10,822	8,658	13,528	10,822	10,281	7,576	9,740	5,411	82,249
30	5,598	11,195	8,956	13,994	11,195	10,636	7,837	10,076	5,598	85,086
31	5,784	11,569	9,255	14,461	11,569	10,990	8,098	10,412	5,784	87,922
32	5,971	11,942	9,553	14,927	11,942	11,345	8,359	10,748	5,971	90,758
33	6,158	12,315	9,852	15,394	12,315	11,699	8,621	11,084	6,158	93,594
34	6,344	12,688	10,151	15,860	12,688	12,054	8,882	11,419	6,344	96,430
35	6,531	13,061	10,449	16,327	13,061	12,408	9,143	11,755	6,531	99,267
36	6,717	13,435	10,748	16,793	13,435	12,763	9,404	12,091	6,717	102,103
37	6,904	13,808	11,046	17,260	13,808	13,117	9,665	12,427	6,904	104,939
38	7,090	14,181	11,345	17,726	14,181	13,472	9,927	12,763	7,090	107,775
39	7,277	14,554	11,643	18,193	14,554	13,826	10,188	13,099	7,277	110,611
40	7,464	14,927	11,942	18,659	14,927	14,181	10,449	13,435	7,464	113,447

HUC 12 # 102702050204 Annual Nitrogen Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	211	423	338	529	423	402	296	381	211	3,213
2	423	846	677	1,057	846	803	592	761	423	6,427
3	634	1,268	1,015	1,586	1,268	1,205	888	1,142	634	9,640
4	846	1,691	1,353	2,114	1,691	1,607	1,184	1,522	846	12,854
5	1,057	2,114	1,691	2,643	2,114	2,008	1,480	1,903	1,057	16,067
6	1,268	2,537	2,030	3,171	2,537	2,410	1,776	2,283	1,268	19,281
7	1,480	2,960	2,368	3,700	2,960	2,812	2,072	2,664	1,480	22,494
8	1,691	3,383	2,706	4,228	3,383	3,213	2,368	3,044	1,691	25,708
9	1,903	3,805	3,044	4,757	3,805	3,615	2,664	3,425	1,903	28,921
10	2,114	4,228	3,383	5,285	4,228	4,017	2,960	3,805	2,114	32,134
11	2,326	4,651	3,721	5,814	4,651	4,418	3,256	4,186	2,326	35,348
12	2,537	5,074	4,059	6,342	5,074	4,820	3,552	4,566	2,537	38,561
13	2,748	5,497	4,397	6,871	5,497	5,222	3,848	4,947	2,748	41,775
14	2,960	5,920	4,736	7,399	5,920	5,624	4,144	5,328	2,960	44,988
15	3,171	6,342	5,074	7,928	6,342	6,025	4,440	5,708	3,171	48,202
16	3,383	6,765	5,412	8,456	6,765	6,427	4,736	6,089	3,383	51,415
17	3,594	7,188	5,750	8,985	7,188	6,829	5,032	6,469	3,594	54,629
18	3,805	7,611	6,089	9,513	7,611	7,230	5,328	6,850	3,805	57,842
19	4,017	8,034	6,427	10,042	8,034	7,632	5,624	7,230	4,017	61,055
20	4,228	8,456	6,765	10,571	8,456	8,034	5,920	7,611	4,228	64,269
21	4,440	8,879	7,103	11,099	8,879	8,435	6,215	7,991	4,440	67,482
22	4,651	9,302	7,442	11,628	9,302	8,837	6,511	8,372	4,651	70,696
23	4,862	9,725	7,780	12,156	9,725	9,239	6,807	8,752	4,862	73,909
24	5,074	10,148	8,118	12,685	10,148	9,640	7,103	9,133	5,074	77,123
25	5,285	10,571	8,456	13,213	10,571	10,042	7,399	9,513	5,285	80,336
26	5,497	10,993	8,795	13,742	10,993	10,444	7,695	9,894	5,497	83,550
27	5,708	11,416	9,133	14,270	11,416	10,845	7,991	10,275	5,708	86,763
28	5,920	11,839	9,471	14,799	11,839	11,247	8,287	10,655	5,920	89,977
29	6,131	12,262	9,809	15,327	12,262	11,649	8,583	11,036	6,131	93,190
30	6,342	12,685	10,148	15,856	12,685	12,050	8,879	11,416	6,342	96,403
31	6,554	13,107	10,486	16,384	13,107	12,452	9,175	11,797	6,554	99,617
32	6,765	13,530	10,824	16,913	13,530	12,854	9,471	12,177	6,765	102,830
33	6,977	13,953	11,162	17,441	13,953	13,255	9,767	12,558	6,977	106,044
34	7,188	14,376	11,501	17,970	14,376	13,657	10,063	12,938	7,188	109,257
35	7,399	14,799	11,839	18,498	14,799	14,059	10,359	13,319	7,399	112,471
36	7,611	15,222	12,177	19,027	15,222	14,461	10,655	13,699	7,611	115,684
37	7,822	15,644	12,516	19,556	15,644	14,862	10,951	14,080	7,822	118,898
38	8,034	16,067	12,854	20,084	16,067	15,264	11,247	14,461	8,034	122,111
39	8,245	16,490	13,192	20,613	16,490	15,666	11,543	14,841	8,245	125,324
40	8,456	16,913	13,530	21,141	16,913	16,067	11,839	15,222	8,456	128,538

HUC 12 # 102702050301 Annual Nitrogen Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	310	621	497	776	621	590	435	559	310	4,719
2	621	1,242	993	1,552	1,242	1,180	869	1,118	621	9,438
3	931	1,863	1,490	2,328	1,863	1,770	1,304	1,676	931	14,157
4	1,242	2,484	1,987	3,105	2,484	2,359	1,739	2,235	1,242	18,876
5	1,552	3,105	2,484	3,881	3,105	2,949	2,173	2,794	1,552	23,594
6	1,863	3,725	2,980	4,657	3,725	3,539	2,608	3,353	1,863	28,313
7	2,173	4,346	3,477	5,433	4,346	4,129	3,042	3,912	2,173	33,032
8	2,484	4,967	3,974	6,209	4,967	4,719	3,477	4,471	2,484	37,751
9	2,794	5,588	4,471	6,985	5,588	5,309	3,912	5,029	2,794	42,470
10	3,105	6,209	4,967	7,761	6,209	5,899	4,346	5,588	3,105	47,189
11	3,415	6,830	5,464	8,537	6,830	6,488	4,781	6,147	3,415	51,908
12	3,725	7,451	5,961	9,314	7,451	7,078	5,216	6,706	3,725	56,627
13	4,036	8,072	6,457	10,090	8,072	7,668	5,650	7,265	4,036	61,346
14	4,346	8,693	6,954	10,866	8,693	8,258	6,085	7,823	4,346	66,065
15	4,657	9,314	7,451	11,642	9,314	8,848	6,520	8,382	4,657	70,783
16	4,967	9,935	7,948	12,418	9,935	9,438	6,954	8,941	4,967	75,502
17	5,278	10,555	8,444	13,194	10,555	10,028	7,389	9,500	5,278	80,221
18	5,588	11,176	8,941	13,970	11,176	10,618	7,823	10,059	5,588	84,940
19	5,899	11,797	9,438	14,747	11,797	11,207	8,258	10,618	5,899	89,659
20	6,209	12,418	9,935	15,523	12,418	11,797	8,693	11,176	6,209	94,378
21	6,520	13,039	10,431	16,299	13,039	12,387	9,127	11,735	6,520	99,097
22	6,830	13,660	10,928	17,075	13,660	12,977	9,562	12,294	6,830	103,816
23	7,140	14,281	11,425	17,851	14,281	13,567	9,997	12,853	7,140	108,535
24	7,451	14,902	11,921	18,627	14,902	14,157	10,431	13,412	7,451	113,253
25	7,761	15,523	12,418	19,403	15,523	14,747	10,866	13,970	7,761	117,972
26	8,072	16,144	12,915	20,179	16,144	15,336	11,301	14,529	8,072	122,691
27	8,382	16,764	13,412	20,956	16,764	15,926	11,735	15,088	8,382	127,410
28	8,693	17,385	13,908	21,732	17,385	16,516	12,170	15,647	8,693	132,129
29	9,003	18,006	14,405	22,508	18,006	17,106	12,604	16,206	9,003	136,848
30	9,314	18,627	14,902	23,284	18,627	17,696	13,039	16,764	9,314	141,567
31	9,624	19,248	15,398	24,060	19,248	18,286	13,474	17,323	9,624	146,286
32	9,935	19,869	15,895	24,836	19,869	18,876	13,908	17,882	9,935	151,005
33	10,245	20,490	16,392	25,612	20,490	19,465	14,343	18,441	10,245	155,723
34	10,555	21,111	16,889	26,389	21,111	20,055	14,778	19,000	10,555	160,442
35	10,866	21,732	17,385	27,165	21,732	20,645	15,212	19,559	10,866	165,161
36	11,176	22,353	17,882	27,941	22,353	21,235	15,647	20,117	11,176	169,880
37	11,487	22,974	18,379	28,717	22,974	21,825	16,081	20,676	11,487	174,599
38	11,797	23,594	18,876	29,493	23,594	22,415	16,516	21,235	11,797	179,318
39	12,108	24,215	19,372	30,269	24,215	23,005	16,951	21,794	12,108	184,037
40	12,418	24,836	19,869	31,045	24,836	23,594	17,385	22,353	12,418	188,756

HUC 12 # 102702050302 Annual Nitrogen Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	299	599	479	749	599	569	419	539	299	4,552
2	599	1,198	958	1,497	1,198	1,138	839	1,078	599	9,105
3	898	1,797	1,438	2,246	1,797	1,707	1,258	1,617	898	13,657
4	1,198	2,396	1,917	2,995	2,396	2,276	1,677	2,156	1,198	18,209
5	1,497	2,995	2,396	3,744	2,995	2,845	2,096	2,695	1,497	22,761
6	1,797	3,594	2,875	4,492	3,594	3,414	2,516	3,235	1,797	27,314
7	2,096	4,193	3,354	5,241	4,193	3,983	2,935	3,774	2,096	31,866
8	2,396	4,792	3,833	5,990	4,792	4,552	3,354	4,313	2,396	36,418
9	2,695	5,391	4,313	6,739	5,391	5,121	3,774	4,852	2,695	40,970
10	2,995	5,990	4,792	7,487	5,990	5,690	4,193	5,391	2,995	45,523
11	3,294	6,589	5,271	8,236	6,589	6,259	4,612	5,930	3,294	50,075
12	3,594	7,188	5,750	8,985	7,188	6,828	5,031	6,469	3,594	54,627
13	3,893	7,787	6,229	9,733	7,787	7,397	5,451	7,008	3,893	59,180
14	4,193	8,386	6,709	10,482	8,386	7,966	5,870	7,547	4,193	63,732
15	4,492	8,985	7,188	11,231	8,985	8,536	6,289	8,086	4,492	68,284
16	4,792	9,584	7,667	11,980	9,584	9,105	6,709	8,625	4,792	72,836
17	5,091	10,183	8,146	12,728	10,183	9,674	7,128	9,164	5,091	77,389
18	5,391	10,782	8,625	13,477	10,782	10,243	7,547	9,704	5,391	81,941
19	5,690	11,381	9,105	14,226	11,381	10,812	7,966	10,243	5,690	86,493
20	5,990	11,980	9,584	14,975	11,980	11,381	8,386	10,782	5,990	91,045
21	6,289	12,579	10,063	15,723	12,579	11,950	8,805	11,321	6,289	95,598
22	6,589	13,178	10,542	16,472	13,178	12,519	9,224	11,860	6,589	100,150
23	6,888	13,777	11,021	17,221	13,777	13,088	9,644	12,399	6,888	104,702
24	7,188	14,376	11,500	17,969	14,376	13,657	10,063	12,938	7,188	109,254
25	7,487	14,975	11,980	18,718	14,975	14,226	10,482	13,477	7,487	113,807
26	7,787	15,574	12,459	19,467	15,574	14,795	10,901	14,016	7,787	118,359
27	8,086	16,173	12,938	20,216	16,173	15,364	11,321	14,555	8,086	122,911
28	8,386	16,772	13,417	20,964	16,772	15,933	11,740	15,094	8,386	127,464
29	8,685	17,371	13,896	21,713	17,371	16,502	12,159	15,633	8,685	132,016
30	8,985	17,969	14,376	22,462	17,969	17,071	12,579	16,173	8,985	136,568
31	9,284	18,568	14,855	23,211	18,568	17,640	12,998	16,712	9,284	141,120
32	9,584	19,167	15,334	23,959	19,167	18,209	13,417	17,251	9,584	145,673
33	9,883	19,766	15,813	24,708	19,766	18,778	13,837	17,790	9,883	150,225
34	10,183	20,365	16,292	25,457	20,365	19,347	14,256	18,329	10,183	154,777
35	10,482	20,964	16,772	26,206	20,964	19,916	14,675	18,868	10,482	159,329
36	10,782	21,563	17,251	26,954	21,563	20,485	15,094	19,407	10,782	163,882
37	11,081	22,162	17,730	27,703	22,162	21,054	15,514	19,946	11,081	168,434
38	11,381	22,761	18,209	28,452	22,761	21,623	15,933	20,485	11,381	172,986
39	11,680	23,360	18,688	29,200	23,360	22,192	16,352	21,024	11,680	177,539
40	11,980	23,959	19,167	29,949	23,959	22,761	16,772	21,563	11,980	182,091

HUC 12 # 102702050306 Annual Nitrogen Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	117	235	188	293	235	223	164	211	117	1,784
2	235	469	376	587	469	446	329	422	235	3,567
3	352	704	563	880	704	669	493	634	352	5,351
4	469	939	751	1,173	939	892	657	845	469	7,135
5	587	1,173	939	1,467	1,173	1,115	821	1,056	587	8,918
6	704	1,408	1,127	1,760	1,408	1,338	986	1,267	704	10,702
7	821	1,643	1,314	2,054	1,643	1,561	1,150	1,479	821	12,486
8	939	1,878	1,502	2,347	1,878	1,784	1,314	1,690	939	14,269
9	1,056	2,112	1,690	2,640	2,112	2,007	1,479	1,901	1,056	16,053
10	1,173	2,347	1,878	2,934	2,347	2,230	1,643	2,112	1,173	17,837
11	1,291	2,582	2,065	3,227	2,582	2,453	1,807	2,323	1,291	19,621
12	1,408	2,816	2,253	3,520	2,816	2,676	1,971	2,535	1,408	21,404
13	1,526	3,051	2,441	3,814	3,051	2,898	2,136	2,746	1,526	23,188
14	1,643	3,286	2,629	4,107	3,286	3,121	2,300	2,957	1,643	24,972
15	1,760	3,520	2,816	4,401	3,520	3,344	2,464	3,168	1,760	26,755
16	1,878	3,755	3,004	4,694	3,755	3,567	2,629	3,380	1,878	28,539
17	1,995	3,990	3,192	4,987	3,990	3,790	2,793	3,591	1,995	30,323
18	2,112	4,225	3,380	5,281	4,225	4,013	2,957	3,802	2,112	32,106
19	2,230	4,459	3,567	5,574	4,459	4,236	3,121	4,013	2,230	33,890
20	2,347	4,694	3,755	5,867	4,694	4,459	3,286	4,225	2,347	35,674
21	2,464	4,929	3,943	6,161	4,929	4,682	3,450	4,436	2,464	37,457
22	2,582	5,163	4,131	6,454	5,163	4,905	3,614	4,647	2,582	39,241
23	2,699	5,398	4,318	6,747	5,398	5,128	3,779	4,858	2,699	41,025
24	2,816	5,633	4,506	7,041	5,633	5,351	3,943	5,069	2,816	42,808
25	2,934	5,867	4,694	7,334	5,867	5,574	4,107	5,281	2,934	44,592
26	3,051	6,102	4,882	7,628	6,102	5,797	4,271	5,492	3,051	46,376
27	3,168	6,337	5,069	7,921	6,337	6,020	4,436	5,703	3,168	48,159
28	3,286	6,571	5,257	8,214	6,571	6,243	4,600	5,914	3,286	49,943
29	3,403	6,806	5,445	8,508	6,806	6,466	4,764	6,126	3,403	51,727
30	3,520	7,041	5,633	8,801	7,041	6,689	4,929	6,337	3,520	53,510
31	3,638	7,276	5,820	9,094	7,276	6,912	5,093	6,548	3,638	55,294
32	3,755	7,510	6,008	9,388	7,510	7,135	5,257	6,759	3,755	57,078
33	3,872	7,745	6,196	9,681	7,745	7,358	5,421	6,970	3,872	58,862
34	3,990	7,980	6,384	9,975	7,980	7,581	5,586	7,182	3,990	60,645
35	4,107	8,214	6,571	10,268	8,214	7,804	5,750	7,393	4,107	62,429
36	4,225	8,449	6,759	10,561	8,449	8,027	5,914	7,604	4,225	64,213
37	4,342	8,684	6,947	10,855	8,684	8,250	6,079	7,815	4,342	65,996
38	4,459	8,918	7,135	11,148	8,918	8,472	6,243	8,027	4,459	67,780
39	4,577	9,153	7,322	11,441	9,153	8,695	6,407	8,238	4,577	69,564
40	4,694	9,388	7,510	11,735	9,388	8,918	6,571	8,449	4,694	71,347

HUC 12 # 102702050401 Annual Nitrogen Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	185	369	295	461	369	351	258	332	185	2,805
2	369	738	590	923	738	701	517	664	369	5,609
3	554	1,107	886	1,384	1,107	1,052	775	996	554	8,414
4	738	1,476	1,181	1,845	1,476	1,402	1,033	1,328	738	11,218
5	923	1,845	1,476	2,306	1,845	1,753	1,292	1,661	923	14,023
6	1,107	2,214	1,771	2,768	2,214	2,103	1,550	1,993	1,107	16,828
7	1,292	2,583	2,067	3,229	2,583	2,454	1,808	2,325	1,292	19,632
8	1,476	2,952	2,362	3,690	2,952	2,805	2,067	2,657	1,476	22,437
9	1,661	3,321	2,657	4,152	3,321	3,155	2,325	2,989	1,661	25,241
10	1,845	3,690	2,952	4,613	3,690	3,506	2,583	3,321	1,845	28,046
11	2,030	4,059	3,247	5,074	4,059	3,856	2,842	3,653	2,030	30,851
12	2,214	4,428	3,543	5,535	4,428	4,207	3,100	3,985	2,214	33,655
13	2,399	4,797	3,838	5,997	4,797	4,557	3,358	4,318	2,399	36,460
14	2,583	5,166	4,133	6,458	5,166	4,908	3,616	4,650	2,583	39,265
15	2,768	5,535	4,428	6,919	5,535	5,259	3,875	4,982	2,768	42,069
16	2,952	5,904	4,724	7,381	5,904	5,609	4,133	5,314	2,952	44,874
17	3,137	6,273	5,019	7,842	6,273	5,960	4,391	5,646	3,137	47,678
18	3,321	6,642	5,314	8,303	6,642	6,310	4,650	5,978	3,321	50,483
19	3,506	7,012	5,609	8,764	7,012	6,661	4,908	6,310	3,506	53,288
20	3,690	7,381	5,904	9,226	7,381	7,012	5,166	6,642	3,690	56,092
21	3,875	7,750	6,200	9,687	7,750	7,362	5,425	6,975	3,875	58,897
22	4,059	8,119	6,495	10,148	8,119	7,713	5,683	7,307	4,059	61,701
23	4,244	8,488	6,790	10,610	8,488	8,063	5,941	7,639	4,244	64,506
24	4,428	8,857	7,085	11,071	8,857	8,414	6,200	7,971	4,428	67,311
25	4,613	9,226	7,381	11,532	9,226	8,764	6,458	8,303	4,613	70,115
26	4,797	9,595	7,676	11,993	9,595	9,115	6,716	8,635	4,797	72,920
27	4,982	9,964	7,971	12,455	9,964	9,466	6,975	8,967	4,982	75,724
28	5,166	10,333	8,266	12,916	10,333	9,816	7,233	9,299	5,166	78,529
29	5,351	10,702	8,561	13,377	10,702	10,167	7,491	9,632	5,351	81,334
30	5,535	11,071	8,857	13,839	11,071	10,517	7,750	9,964	5,535	84,138
31	5,720	11,440	9,152	14,300	11,440	10,868	8,008	10,296	5,720	86,943
32	5,904	11,809	9,447	14,761	11,809	11,218	8,266	10,628	5,904	89,747
33	6,089	12,178	9,742	15,222	12,178	11,569	8,525	10,960	6,089	92,552
34	6,273	12,547	10,038	15,684	12,547	11,920	8,783	11,292	6,273	95,357
35	6,458	12,916	10,333	16,145	12,916	12,270	9,041	11,624	6,458	98,161
36	6,642	13,285	10,628	16,606	13,285	12,621	9,299	11,956	6,642	100,966
37	6,827	13,654	10,923	17,068	13,654	12,971	9,558	12,289	6,827	103,770
38	7,012	14,023	11,218	17,529	14,023	13,322	9,816	12,621	7,012	106,575
39	7,196	14,392	11,514	17,990	14,392	13,672	10,074	12,953	7,196	109,380
40	7,381	14,761	11,809	18,451	14,761	14,023	10,333	13,285	7,381	112,184

HUC 12 # 102702050402 Annual Nitrogen Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	89	179	143	224	179	170	125	161	89	1,359
2	179	358	286	447	358	340	250	322	179	2,719
3	268	537	429	671	537	510	376	483	268	4,078
4	358	715	572	894	715	680	501	644	358	5,438
5	447	894	715	1,118	894	850	626	805	447	6,797
6	537	1,073	859	1,342	1,073	1,020	751	966	537	8,157
7	626	1,252	1,002	1,565	1,252	1,190	876	1,127	626	9,516
8	715	1,431	1,145	1,789	1,431	1,359	1,002	1,288	715	10,875
9	805	1,610	1,288	2,012	1,610	1,529	1,127	1,449	805	12,235
10	894	1,789	1,431	2,236	1,789	1,699	1,252	1,610	894	13,594
11	984	1,968	1,574	2,460	1,968	1,869	1,377	1,771	984	14,954
12	1,073	2,146	1,717	2,683	2,146	2,039	1,503	1,932	1,073	16,313
13	1,163	2,325	1,860	2,907	2,325	2,209	1,628	2,093	1,163	17,673
14	1,252	2,504	2,003	3,130	2,504	2,379	1,753	2,254	1,252	19,032
15	1,342	2,683	2,146	3,354	2,683	2,549	1,878	2,415	1,342	20,392
16	1,431	2,862	2,290	3,577	2,862	2,719	2,003	2,576	1,431	21,751
17	1,520	3,041	2,433	3,801	3,041	2,889	2,129	2,737	1,520	23,110
18	1,610	3,220	2,576	4,025	3,220	3,059	2,254	2,898	1,610	24,470
19	1,699	3,399	2,719	4,248	3,399	3,229	2,379	3,059	1,699	25,829
20	1,789	3,577	2,862	4,472	3,577	3,399	2,504	3,220	1,789	27,189
21	1,878	3,756	3,005	4,695	3,756	3,569	2,629	3,381	1,878	28,548
22	1,968	3,935	3,148	4,919	3,935	3,738	2,755	3,542	1,968	29,908
23	2,057	4,114	3,291	5,143	4,114	3,908	2,880	3,703	2,057	31,267
24	2,146	4,293	3,434	5,366	4,293	4,078	3,005	3,864	2,146	32,626
25	2,236	4,472	3,577	5,590	4,472	4,248	3,130	4,025	2,236	33,986
26	2,325	4,651	3,721	5,813	4,651	4,418	3,255	4,186	2,325	35,345
27	2,415	4,830	3,864	6,037	4,830	4,588	3,381	4,347	2,415	36,705
28	2,504	5,008	4,007	6,261	5,008	4,758	3,506	4,508	2,504	38,064
29	2,594	5,187	4,150	6,484	5,187	4,928	3,631	4,669	2,594	39,424
30	2,683	5,366	4,293	6,708	5,366	5,098	3,756	4,830	2,683	40,783
31	2,773	5,545	4,436	6,931	5,545	5,268	3,882	4,991	2,773	42,143
32	2,862	5,724	4,579	7,155	5,724	5,438	4,007	5,152	2,862	43,502
33	2,951	5,903	4,722	7,379	5,903	5,608	4,132	5,313	2,951	44,861
34	3,041	6,082	4,865	7,602	6,082	5,778	4,257	5,474	3,041	46,221
35	3,130	6,261	5,008	7,826	6,261	5,948	4,382	5,635	3,130	47,580
36	3,220	6,439	5,152	8,049	6,439	6,117	4,508	5,795	3,220	48,940
37	3,309	6,618	5,295	8,273	6,618	6,287	4,633	5,956	3,309	50,299
38	3,399	6,797	5,438	8,496	6,797	6,457	4,758	6,117	3,399	51,659
39	3,488	6,976	5,581	8,720	6,976	6,627	4,883	6,278	3,488	53,018
40	3,577	7,155	5,724	8,944	7,155	6,797	5,008	6,439	3,577	54,377

HUC 12 # 102702050403 Annual Nitrogen Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	109	217	174	272	217	206	152	196	109	1,652
2	217	435	348	543	435	413	304	391	217	3,304
3	326	652	522	815	652	619	456	587	326	4,956
4	435	869	696	1,087	869	826	609	782	435	6,608
5	543	1,087	869	1,358	1,087	1,032	761	978	543	8,259
6	652	1,304	1,043	1,630	1,304	1,239	913	1,174	652	9,911
7	761	1,521	1,217	1,902	1,521	1,445	1,065	1,369	761	11,563
8	869	1,739	1,391	2,174	1,739	1,652	1,217	1,565	869	13,215
9	978	1,956	1,565	2,445	1,956	1,858	1,369	1,761	978	14,867
10	1,087	2,174	1,739	2,717	2,174	2,065	1,521	1,956	1,087	16,519
11	1,195	2,391	1,913	2,989	2,391	2,271	1,674	2,152	1,195	18,171
12	1,304	2,608	2,087	3,260	2,608	2,478	1,826	2,347	1,304	19,823
13	1,413	2,826	2,260	3,532	2,826	2,684	1,978	2,543	1,413	21,475
14	1,521	3,043	2,434	3,804	3,043	2,891	2,130	2,739	1,521	23,127
15	1,630	3,260	2,608	4,075	3,260	3,097	2,282	2,934	1,630	24,778
16	1,739	3,478	2,782	4,347	3,478	3,304	2,434	3,130	1,739	26,430
17	1,848	3,695	2,956	4,619	3,695	3,510	2,587	3,326	1,848	28,082
18	1,956	3,912	3,130	4,890	3,912	3,717	2,739	3,521	1,956	29,734
19	2,065	4,130	3,304	5,162	4,130	3,923	2,891	3,717	2,065	31,386
20	2,174	4,347	3,478	5,434	4,347	4,130	3,043	3,912	2,174	33,038
21	2,282	4,564	3,652	5,706	4,564	4,336	3,195	4,108	2,282	34,690
22	2,391	4,782	3,825	5,977	4,782	4,543	3,347	4,304	2,391	36,342
23	2,500	4,999	3,999	6,249	4,999	4,749	3,499	4,499	2,500	37,994
24	2,608	5,217	4,173	6,521	5,217	4,956	3,652	4,695	2,608	39,645
25	2,717	5,434	4,347	6,792	5,434	5,162	3,804	4,890	2,717	41,297
26	2,826	5,651	4,521	7,064	5,651	5,369	3,956	5,086	2,826	42,949
27	2,934	5,869	4,695	7,336	5,869	5,575	4,108	5,282	2,934	44,601
28	3,043	6,086	4,869	7,607	6,086	5,782	4,260	5,477	3,043	46,253
29	3,152	6,303	5,043	7,879	6,303	5,988	4,412	5,673	3,152	47,905
30	3,260	6,521	5,217	8,151	6,521	6,195	4,564	5,869	3,260	49,557
31	3,369	6,738	5,390	8,422	6,738	6,401	4,717	6,064	3,369	51,209
32	3,478	6,955	5,564	8,694	6,955	6,608	4,869	6,260	3,478	52,861
33	3,586	7,173	5,738	8,966	7,173	6,814	5,021	6,455	3,586	54,513
34	3,695	7,390	5,912	9,238	7,390	7,021	5,173	6,651	3,695	56,164
35	3,804	7,607	6,086	9,509	7,607	7,227	5,325	6,847	3,804	57,816
36	3,912	7,825	6,260	9,781	7,825	7,434	5,477	7,042	3,912	59,468
37	4,021	8,042	6,434	10,053	8,042	7,640	5,629	7,238	4,021	61,120
38	4,130	8,259	6,608	10,324	8,259	7,847	5,782	7,434	4,130	62,772
39	4,238	8,477	6,781	10,596	8,477	8,053	5,934	7,629	4,238	64,424
40	4,347	8,694	6,955	10,868	8,694	8,259	6,086	7,825	4,347	66,076

HUC 12 # 102702050501 Annual Nitrogen Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	266	532	426	665	532	505	372	479	266	4,042
2	532	1,064	851	1,330	1,064	1,011	745	957	532	8,085
3	798	1,596	1,277	1,995	1,596	1,516	1,117	1,436	798	12,127
4	1,064	2,128	1,702	2,660	2,128	2,021	1,489	1,915	1,064	16,170
5	1,330	2,660	2,128	3,324	2,660	2,527	1,862	2,394	1,330	20,212
6	1,596	3,191	2,553	3,989	3,191	3,032	2,234	2,872	1,596	24,255
7	1,862	3,723	2,979	4,654	3,723	3,537	2,606	3,351	1,862	28,297
8	2,128	4,255	3,404	5,319	4,255	4,042	2,979	3,830	2,128	32,340
9	2,394	4,787	3,830	5,984	4,787	4,548	3,351	4,308	2,394	36,382
10	2,660	5,319	4,255	6,649	5,319	5,053	3,723	4,787	2,660	40,424
11	2,925	5,851	4,681	7,314	5,851	5,558	4,096	5,266	2,925	44,467
12	3,191	6,383	5,106	7,979	6,383	6,064	4,468	5,745	3,191	48,509
13	3,457	6,915	5,532	8,643	6,915	6,569	4,840	6,223	3,457	52,552
14	3,723	7,447	5,957	9,308	7,447	7,074	5,213	6,702	3,723	56,594
15	3,989	7,979	6,383	9,973	7,979	7,580	5,585	7,181	3,989	60,637
16	4,255	8,510	6,808	10,638	8,510	8,085	5,957	7,659	4,255	64,679
17	4,521	9,042	7,234	11,303	9,042	8,590	6,330	8,138	4,521	68,722
18	4,787	9,574	7,659	11,968	9,574	9,096	6,702	8,617	4,787	72,764
19	5,053	10,106	8,085	12,633	10,106	9,601	7,074	9,096	5,053	76,806
20	5,319	10,638	8,510	13,298	10,638	10,106	7,447	9,574	5,319	80,849
21	5,585	11,170	8,936	13,962	11,170	10,611	7,819	10,053	5,585	84,891
22	5,851	11,702	9,361	14,627	11,702	11,117	8,191	10,532	5,851	88,934
23	6,117	12,234	9,787	15,292	12,234	11,622	8,564	11,010	6,117	92,976
24	6,383	12,766	10,212	15,957	12,766	12,127	8,936	11,489	6,383	97,019
25	6,649	13,298	10,638	16,622	13,298	12,633	9,308	11,968	6,649	101,061
26	6,915	13,829	11,064	17,287	13,829	13,138	9,681	12,446	6,915	105,104
27	7,181	14,361	11,489	17,952	14,361	13,643	10,053	12,925	7,181	109,146
28	7,447	14,893	11,915	18,617	14,893	14,149	10,425	13,404	7,447	113,188
29	7,713	15,425	12,340	19,281	15,425	14,654	10,798	13,883	7,713	117,231
30	7,979	15,957	12,766	19,946	15,957	15,159	11,170	14,361	7,979	121,273
31	8,244	16,489	13,191	20,611	16,489	15,664	11,542	14,840	8,244	125,316
32	8,510	17,021	13,617	21,276	17,021	16,170	11,915	15,319	8,510	129,358
33	8,776	17,553	14,042	21,941	17,553	16,675	12,287	15,797	8,776	133,401
34	9,042	18,085	14,468	22,606	18,085	17,180	12,659	16,276	9,042	137,443
35	9,308	18,617	14,893	23,271	18,617	17,686	13,032	16,755	9,308	141,486
36	9,574	19,148	15,319	23,936	19,148	18,191	13,404	17,234	9,574	145,528
37	9,840	19,680	15,744	24,600	19,680	18,696	13,776	17,712	9,840	149,570
38	10,106	20,212	16,170	25,265	20,212	19,202	14,149	18,191	10,106	153,613
39	10,372	20,744	16,595	25,930	20,744	19,707	14,521	18,670	10,372	157,655
40	10,638	21,276	17,021	26,595	21,276	20,212	14,893	19,148	10,638	161,698

c. Mainstem Targeted Areas plus Riparian Corridors

HUC 12 # 102702050406 Annual Nitrogen Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	88	176	141	220	176	167	123	158	88	1,336
2	176	351	281	439	351	334	246	316	176	2,671
3	264	527	422	659	527	501	369	474	264	4,007
4	351	703	562	879	703	668	492	633	351	5,342
5	439	879	703	1,098	879	835	615	791	439	6,678
6	527	1,054	844	1,318	1,054	1,002	738	949	527	8,014
7	615	1,230	984	1,538	1,230	1,169	861	1,107	615	9,349
8	703	1,406	1,125	1,757	1,406	1,336	984	1,265	703	10,685
9	791	1,582	1,265	1,977	1,582	1,503	1,107	1,423	791	12,020
10	879	1,757	1,406	2,197	1,757	1,670	1,230	1,582	879	13,356
11	967	1,933	1,546	2,416	1,933	1,836	1,353	1,740	967	14,692
12	1,054	2,109	1,687	2,636	2,109	2,003	1,476	1,898	1,054	16,027
13	1,142	2,285	1,828	2,856	2,285	2,170	1,599	2,056	1,142	17,363
14	1,230	2,460	1,968	3,075	2,460	2,337	1,722	2,214	1,230	18,699
15	1,318	2,636	2,109	3,295	2,636	2,504	1,845	2,372	1,318	20,034
16	1,406	2,812	2,249	3,515	2,812	2,671	1,968	2,531	1,406	21,370
17	1,494	2,988	2,390	3,734	2,988	2,838	2,091	2,689	1,494	22,705
18	1,582	3,163	2,531	3,954	3,163	3,005	2,214	2,847	1,582	24,041
19	1,670	3,339	2,671	4,174	3,339	3,172	2,337	3,005	1,670	25,377
20	1,757	3,515	2,812	4,393	3,515	3,339	2,460	3,163	1,757	26,712
21	1,845	3,691	2,952	4,613	3,691	3,506	2,583	3,321	1,845	28,048
22	1,933	3,866	3,093	4,833	3,866	3,673	2,706	3,480	1,933	29,383
23	2,021	4,042	3,234	5,052	4,042	3,840	2,829	3,638	2,021	30,719
24	2,109	4,218	3,374	5,272	4,218	4,007	2,952	3,796	2,109	32,055
25	2,197	4,393	3,515	5,492	4,393	4,174	3,075	3,954	2,197	33,390
26	2,285	4,569	3,655	5,711	4,569	4,341	3,198	4,112	2,285	34,726
27	2,372	4,745	3,796	5,931	4,745	4,508	3,321	4,270	2,372	36,061
28	2,460	4,921	3,937	6,151	4,921	4,675	3,444	4,429	2,460	37,397
29	2,548	5,096	4,077	6,371	5,096	4,842	3,567	4,587	2,548	38,733
30	2,636	5,272	4,218	6,590	5,272	5,009	3,691	4,745	2,636	40,068
31	2,724	5,448	4,358	6,810	5,448	5,175	3,814	4,903	2,724	41,404
32	2,812	5,624	4,499	7,030	5,624	5,342	3,937	5,061	2,812	42,740
33	2,900	5,799	4,639	7,249	5,799	5,509	4,060	5,219	2,900	44,075
34	2,988	5,975	4,780	7,469	5,975	5,676	4,183	5,378	2,988	45,411
35	3,075	6,151	4,921	7,689	6,151	5,843	4,306	5,536	3,075	46,746
36	3,163	6,327	5,061	7,908	6,327	6,010	4,429	5,694	3,163	48,082
37	3,251	6,502	5,202	8,128	6,502	6,177	4,552	5,852	3,251	49,418
38	3,339	6,678	5,342	8,348	6,678	6,344	4,675	6,010	3,339	50,753
39	3,427	6,854	5,483	8,567	6,854	6,511	4,798	6,168	3,427	52,089
40	3,515	7,030	5,624	8,787	7,030	6,678	4,921	6,327	3,515	53,424

HUC 12 # 102702050502 Annual Nitrogen Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	142	285	228	356	285	271	199	256	142	2,164
2	285	570	456	712	570	541	399	513	285	4,329
3	427	854	683	1,068	854	812	598	769	427	6,493
4	570	1,139	911	1,424	1,139	1,082	797	1,025	570	8,657
5	712	1,424	1,139	1,780	1,424	1,353	997	1,281	712	10,821
6	854	1,709	1,367	2,136	1,709	1,623	1,196	1,538	854	12,986
7	997	1,993	1,595	2,492	1,993	1,894	1,395	1,794	997	15,150
8	1,139	2,278	1,823	2,848	2,278	2,164	1,595	2,050	1,139	17,314
9	1,281	2,563	2,050	3,204	2,563	2,435	1,794	2,307	1,281	19,479
10	1,424	2,848	2,278	3,560	2,848	2,705	1,993	2,563	1,424	21,643
11	1,566	3,133	2,506	3,916	3,133	2,976	2,193	2,819	1,566	23,807
12	1,709	3,417	2,734	4,272	3,417	3,246	2,392	3,076	1,709	25,972
13	1,851	3,702	2,962	4,628	3,702	3,517	2,591	3,332	1,851	28,136
14	1,993	3,987	3,189	4,984	3,987	3,788	2,791	3,588	1,993	30,300
15	2,136	4,272	3,417	5,340	4,272	4,058	2,990	3,844	2,136	32,464
16	2,278	4,556	3,645	5,696	4,556	4,329	3,189	4,101	2,278	34,629
17	2,421	4,841	3,873	6,051	4,841	4,599	3,389	4,357	2,421	36,793
18	2,563	5,126	4,101	6,407	5,126	4,870	3,588	4,613	2,563	38,957
19	2,705	5,411	4,329	6,763	5,411	5,140	3,788	4,870	2,705	41,122
20	2,848	5,696	4,556	7,119	5,696	5,411	3,987	5,126	2,848	43,286
21	2,990	5,980	4,784	7,475	5,980	5,681	4,186	5,382	2,990	45,450
22	3,133	6,265	5,012	7,831	6,265	5,952	4,386	5,639	3,133	47,615
23	3,275	6,550	5,240	8,187	6,550	6,222	4,585	5,895	3,275	49,779
24	3,417	6,835	5,468	8,543	6,835	6,493	4,784	6,151	3,417	51,943
25	3,560	7,119	5,696	8,899	7,119	6,763	4,984	6,407	3,560	54,107
26	3,702	7,404	5,923	9,255	7,404	7,034	5,183	6,664	3,702	56,272
27	3,844	7,689	6,151	9,611	7,689	7,304	5,382	6,920	3,844	58,436
28	3,987	7,974	6,379	9,967	7,974	7,575	5,582	7,176	3,987	60,600
29	4,129	8,258	6,607	10,323	8,258	7,846	5,781	7,433	4,129	62,765
30	4,272	8,543	6,835	10,679	8,543	8,116	5,980	7,689	4,272	64,929
31	4,414	8,828	7,062	11,035	8,828	8,387	6,180	7,945	4,414	67,093
32	4,556	9,113	7,290	11,391	9,113	8,657	6,379	8,202	4,556	69,257
33	4,699	9,398	7,518	11,747	9,398	8,928	6,578	8,458	4,699	71,422
34	4,841	9,682	7,746	12,103	9,682	9,198	6,778	8,714	4,841	73,586
35	4,984	9,967	7,974	12,459	9,967	9,469	6,977	8,970	4,984	75,750
36	5,126	10,252	8,202	12,815	10,252	9,739	7,176	9,227	5,126	77,915
37	5,268	10,537	8,429	13,171	10,537	10,010	7,376	9,483	5,268	80,079
38	5,411	10,821	8,657	13,527	10,821	10,280	7,575	9,739	5,411	82,243
39	5,553	11,106	8,885	13,883	11,106	10,551	7,774	9,996	5,553	84,408
40	5,696	11,391	9,113	14,239	11,391	10,821	7,974	10,252	5,696	86,572

HUC 12 # 102702050503 Annual Nitrogen Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	36	72	58	90	72	69	51	65	36	548
2	72	144	115	180	144	137	101	130	72	1,097
3	108	216	173	271	216	206	152	195	108	1,645
4	144	289	231	361	289	274	202	260	144	2,193
5	180	361	289	451	361	343	253	325	180	2,742
6	216	433	346	541	433	411	303	390	216	3,290
7	253	505	404	631	505	480	354	455	253	3,838
8	289	577	462	721	577	548	404	519	289	4,386
9	325	649	519	812	649	617	455	584	325	4,935
10	361	721	577	902	721	685	505	649	361	5,483
11	397	794	635	992	794	754	556	714	397	6,031
12	433	866	693	1,082	866	822	606	779	433	6,580
13	469	938	750	1,172	938	891	657	844	469	7,128
14	505	1,010	808	1,263	1,010	960	707	909	505	7,676
15	541	1,082	866	1,353	1,082	1,028	758	974	541	8,225
16	577	1,154	923	1,443	1,154	1,097	808	1,039	577	8,773
17	613	1,226	981	1,533	1,226	1,165	859	1,104	613	9,321
18	649	1,299	1,039	1,623	1,299	1,234	909	1,169	649	9,869
19	685	1,371	1,097	1,713	1,371	1,302	960	1,234	685	10,418
20	721	1,443	1,154	1,804	1,443	1,371	1,010	1,299	721	10,966
21	758	1,515	1,212	1,894	1,515	1,439	1,061	1,364	758	11,514
22	794	1,587	1,270	1,984	1,587	1,508	1,111	1,428	794	12,063
23	830	1,659	1,327	2,074	1,659	1,576	1,162	1,493	830	12,611
24	866	1,731	1,385	2,164	1,731	1,645	1,212	1,558	866	13,159
25	902	1,804	1,443	2,255	1,804	1,713	1,263	1,623	902	13,708
26	938	1,876	1,501	2,345	1,876	1,782	1,313	1,688	938	14,256
27	974	1,948	1,558	2,435	1,948	1,851	1,364	1,753	974	14,804
28	1,010	2,020	1,616	2,525	2,020	1,919	1,414	1,818	1,010	15,352
29	1,046	2,092	1,674	2,615	2,092	1,988	1,465	1,883	1,046	15,901
30	1,082	2,164	1,731	2,705	2,164	2,056	1,515	1,948	1,082	16,449
31	1,118	2,236	1,789	2,796	2,236	2,125	1,566	2,013	1,118	16,997
32	1,154	2,309	1,847	2,886	2,309	2,193	1,616	2,078	1,154	17,546
33	1,190	2,381	1,905	2,976	2,381	2,262	1,667	2,143	1,190	18,094
34	1,226	2,453	1,962	3,066	2,453	2,330	1,717	2,208	1,226	18,642
35	1,263	2,525	2,020	3,156	2,525	2,399	1,768	2,273	1,263	19,191
36	1,299	2,597	2,078	3,247	2,597	2,467	1,818	2,338	1,299	19,739
37	1,335	2,669	2,135	3,337	2,669	2,536	1,869	2,402	1,335	20,287
38	1,371	2,742	2,193	3,427	2,742	2,604	1,919	2,467	1,371	20,836
39	1,407	2,814	2,251	3,517	2,814	2,673	1,970	2,532	1,407	21,384
40	1,443	2,886	2,309	3,607	2,886	2,742	2,020	2,597	1,443	21,932

HUC 12 # 102702050505 Annual Nitrogen Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	90	179	143	224	179	170	125	161	90	1,362
2	179	358	287	448	358	340	251	322	179	2,723
3	269	537	430	672	537	511	376	484	269	4,085
4	358	717	573	896	717	681	502	645	358	5,446
5	448	896	717	1,120	896	851	627	806	448	6,808
6	537	1,075	860	1,344	1,075	1,021	752	967	537	8,170
7	627	1,254	1,003	1,568	1,254	1,191	878	1,129	627	9,531
8	717	1,433	1,147	1,792	1,433	1,362	1,003	1,290	717	10,893
9	806	1,612	1,290	2,016	1,612	1,532	1,129	1,451	806	12,254
10	896	1,792	1,433	2,239	1,792	1,702	1,254	1,612	896	13,616
11	985	1,971	1,577	2,463	1,971	1,872	1,380	1,774	985	14,978
12	1,075	2,150	1,720	2,687	2,150	2,042	1,505	1,935	1,075	16,339
13	1,165	2,329	1,863	2,911	2,329	2,213	1,630	2,096	1,165	17,701
14	1,254	2,508	2,007	3,135	2,508	2,383	1,756	2,257	1,254	19,062
15	1,344	2,687	2,150	3,359	2,687	2,553	1,881	2,419	1,344	20,424
16	1,433	2,867	2,293	3,583	2,867	2,723	2,007	2,580	1,433	21,786
17	1,523	3,046	2,437	3,807	3,046	2,893	2,132	2,741	1,523	23,147
18	1,612	3,225	2,580	4,031	3,225	3,064	2,257	2,902	1,612	24,509
19	1,702	3,404	2,723	4,255	3,404	3,234	2,383	3,064	1,702	25,870
20	1,792	3,583	2,867	4,479	3,583	3,404	2,508	3,225	1,792	27,232
21	1,881	3,762	3,010	4,703	3,762	3,574	2,634	3,386	1,881	28,594
22	1,971	3,941	3,153	4,927	3,941	3,744	2,759	3,547	1,971	29,955
23	2,060	4,121	3,297	5,151	4,121	3,915	2,884	3,709	2,060	31,317
24	2,150	4,300	3,440	5,375	4,300	4,085	3,010	3,870	2,150	32,678
25	2,239	4,479	3,583	5,599	4,479	4,255	3,135	4,031	2,239	34,040
26	2,329	4,658	3,726	5,823	4,658	4,425	3,261	4,192	2,329	35,402
27	2,419	4,837	3,870	6,047	4,837	4,595	3,386	4,354	2,419	36,763
28	2,508	5,016	4,013	6,271	5,016	4,766	3,511	4,515	2,508	38,125
29	2,598	5,196	4,156	6,494	5,196	4,936	3,637	4,676	2,598	39,486
30	2,687	5,375	4,300	6,718	5,375	5,106	3,762	4,837	2,687	40,848
31	2,777	5,554	4,443	6,942	5,554	5,276	3,888	4,999	2,777	42,210
32	2,867	5,733	4,586	7,166	5,733	5,446	4,013	5,160	2,867	43,571
33	2,956	5,912	4,730	7,390	5,912	5,617	4,139	5,321	2,956	44,933
34	3,046	6,091	4,873	7,614	6,091	5,787	4,264	5,482	3,046	46,294
35	3,135	6,271	5,016	7,838	6,271	5,957	4,389	5,643	3,135	47,656
36	3,225	6,450	5,160	8,062	6,450	6,127	4,515	5,805	3,225	49,018
37	3,314	6,629	5,303	8,286	6,629	6,297	4,640	5,966	3,314	50,379
38	3,404	6,808	5,446	8,510	6,808	6,468	4,766	6,127	3,404	51,741
39	3,494	6,987	5,590	8,734	6,987	6,638	4,891	6,288	3,494	53,102
40	3,583	7,166	5,733	8,958	7,166	6,808	5,016	6,450	3,583	54,464

HUC 12 # 102702050506 Annual Nitrogen Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	52	104	83	130	104	99	73	94	52	792
2	104	208	167	260	208	198	146	188	104	1,584
3	156	313	250	391	313	297	219	281	156	2,375
4	208	417	333	521	417	396	292	375	208	3,167
5	260	521	417	651	521	495	365	469	260	3,959
6	313	625	500	781	625	594	438	563	313	4,751
7	365	729	583	912	729	693	510	656	365	5,542
8	417	833	667	1,042	833	792	583	750	417	6,334
9	469	938	750	1,172	938	891	656	844	469	7,126
10	521	1,042	833	1,302	1,042	990	729	938	521	7,918
11	573	1,146	917	1,432	1,146	1,089	802	1,031	573	8,709
12	625	1,250	1,000	1,563	1,250	1,188	875	1,125	625	9,501
13	677	1,354	1,083	1,693	1,354	1,287	948	1,219	677	10,293
14	729	1,459	1,167	1,823	1,459	1,386	1,021	1,313	729	11,085
15	781	1,563	1,250	1,953	1,563	1,485	1,094	1,406	781	11,876
16	833	1,667	1,333	2,084	1,667	1,584	1,167	1,500	833	12,668
17	886	1,771	1,417	2,214	1,771	1,682	1,240	1,594	886	13,460
18	938	1,875	1,500	2,344	1,875	1,781	1,313	1,688	938	14,252
19	990	1,979	1,584	2,474	1,979	1,880	1,386	1,781	990	15,043
20	1,042	2,084	1,667	2,604	2,084	1,979	1,459	1,875	1,042	15,835
21	1,094	2,188	1,750	2,735	2,188	2,078	1,531	1,969	1,094	16,627
22	1,146	2,292	1,834	2,865	2,292	2,177	1,604	2,063	1,146	17,419
23	1,198	2,396	1,917	2,995	2,396	2,276	1,677	2,157	1,198	18,211
24	1,250	2,500	2,000	3,125	2,500	2,375	1,750	2,250	1,250	19,002
25	1,302	2,604	2,084	3,256	2,604	2,474	1,823	2,344	1,302	19,794
26	1,354	2,709	2,167	3,386	2,709	2,573	1,896	2,438	1,354	20,586
27	1,406	2,813	2,250	3,516	2,813	2,672	1,969	2,532	1,406	21,378
28	1,459	2,917	2,334	3,646	2,917	2,771	2,042	2,625	1,459	22,169
29	1,511	3,021	2,417	3,776	3,021	2,870	2,115	2,719	1,511	22,961
30	1,563	3,125	2,500	3,907	3,125	2,969	2,188	2,813	1,563	23,753
31	1,615	3,230	2,584	4,037	3,230	3,068	2,261	2,907	1,615	24,545
32	1,667	3,334	2,667	4,167	3,334	3,167	2,334	3,000	1,667	25,336
33	1,719	3,438	2,750	4,297	3,438	3,266	2,407	3,094	1,719	26,128
34	1,771	3,542	2,834	4,428	3,542	3,365	2,479	3,188	1,771	26,920
35	1,823	3,646	2,917	4,558	3,646	3,464	2,552	3,282	1,823	27,712
36	1,875	3,750	3,000	4,688	3,750	3,563	2,625	3,375	1,875	28,503
37	1,927	3,855	3,084	4,818	3,855	3,662	2,698	3,469	1,927	29,295
38	1,979	3,959	3,167	4,949	3,959	3,761	2,771	3,563	1,979	30,087
39	2,031	4,063	3,250	5,079	4,063	3,860	2,844	3,657	2,031	30,879
40	2,084	4,167	3,334	5,209	4,167	3,959	2,917	3,750	2,084	31,670

Riparian Areas Annual Nitrogen Reduction, Cropland BMPs (pounds)										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Cumulative Load Reduction
1	169	337	270	422	337	320	236	303	169	2,563
2	337	674	540	843	674	641	472	607	337	5,126
3	506	1,012	809	1,265	1,012	961	708	910	506	7,688
4	674	1,349	1,079	1,686	1,349	1,281	944	1,214	674	10,251
5	843	1,686	1,349	2,108	1,686	1,602	1,180	1,517	843	12,814
6	1,012	2,023	1,619	2,529	2,023	1,922	1,416	1,821	1,012	15,377
7	1,180	2,360	1,888	2,951	2,360	2,242	1,652	2,124	1,180	17,940
8	1,349	2,698	2,158	3,372	2,698	2,563	1,888	2,428	1,349	20,502
9	1,517	3,035	2,428	3,794	3,035	2,883	2,124	2,731	1,517	23,065
10	1,686	3,372	2,698	4,215	3,372	3,204	2,360	3,035	1,686	25,628
11	1,855	3,709	2,967	4,637	3,709	3,524	2,597	3,338	1,855	28,191
12	2,023	4,047	3,237	5,058	4,047	3,844	2,833	3,642	2,023	30,754
13	2,192	4,384	3,507	5,480	4,384	4,165	3,069	3,945	2,192	33,317
14	2,360	4,721	3,777	5,901	4,721	4,485	3,305	4,249	2,360	35,879
15	2,529	5,058	4,047	6,323	5,058	4,805	3,541	4,552	2,529	38,442
16	2,698	5,395	4,316	6,744	5,395	5,126	3,777	4,856	2,698	41,005
17	2,866	5,733	4,586	7,166	5,733	5,446	4,013	5,159	2,866	43,568
18	3,035	6,070	4,856	7,587	6,070	5,766	4,249	5,463	3,035	46,131
19	3,204	6,407	5,126	8,009	6,407	6,087	4,485	5,766	3,204	48,693
20	3,372	6,744	5,395	8,430	6,744	6,407	4,721	6,070	3,372	51,256
21	3,541	7,081	5,665	8,852	7,081	6,727	4,957	6,373	3,541	53,819
22	3,709	7,419	5,935	9,273	7,419	7,048	5,193	6,677	3,709	56,382
23	3,878	7,756	6,205	9,695	7,756	7,368	5,429	6,980	3,878	58,945
24	4,047	8,093	6,474	10,116	8,093	7,688	5,665	7,284	4,047	61,507
25	4,215	8,430	6,744	10,538	8,430	8,009	5,901	7,587	4,215	64,070
26	4,384	8,768	7,014	10,959	8,768	8,329	6,137	7,891	4,384	66,633
27	4,552	9,105	7,284	11,381	9,105	8,649	6,373	8,194	4,552	69,196
28	4,721	9,442	7,554	11,802	9,442	8,970	6,609	8,498	4,721	71,759
29	4,890	9,779	7,823	12,224	9,779	9,290	6,845	8,801	4,890	74,322
30	5,058	10,116	8,093	12,645	10,116	9,611	7,081	9,105	5,058	76,884
31	5,227	10,454	8,363	13,067	10,454	9,931	7,318	9,408	5,227	79,447
32	5,395	10,791	8,633	13,488	10,791	10,251	7,554	9,712	5,395	82,010
33	5,564	11,128	8,902	13,910	11,128	10,572	7,790	10,015	5,564	84,573
34	5,733	11,465	9,172	14,332	11,465	10,892	8,026	10,319	5,733	87,136
35	5,901	11,802	9,442	14,753	11,802	11,212	8,262	10,622	5,901	89,698
36	6,070	12,140	9,712	15,175	12,140	11,533	8,498	10,926	6,070	92,261
37	6,238	12,477	9,981	15,596	12,477	11,853	8,734	11,229	6,238	94,824
38	6,407	12,814	10,251	16,018	12,814	12,173	8,970	11,533	6,407	97,387
39	6,576	13,151	10,521	16,439	13,151	12,494	9,206	11,836	6,576	99,950
40	6,744	13,488	10,791	16,861	13,488	12,814	9,442	12,140	6,744	102,512

5. Cropland Implementation Costs by Sub-Watershed/Targeted Area: Before and After Cost-Share

a. Little Blue Targeted Areas

HUC 12 # 102702070505 Annual Cost* Before Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$2,070	\$3,105	\$4,968	\$6,031	\$3,522	\$2,329	\$422	\$5,822	\$1,941	\$20,066
2	\$2,132	\$3,198	\$5,117	\$6,212	\$3,627	\$2,399	\$435	\$5,997	\$1,999	\$20,668
3	\$2,196	\$3,294	\$5,271	\$6,398	\$3,736	\$2,471	\$448	\$6,176	\$2,059	\$21,288
4	\$2,262	\$3,393	\$5,429	\$6,590	\$3,848	\$2,545	\$461	\$6,362	\$2,121	\$21,926
5	\$2,330	\$3,495	\$5,592	\$6,788	\$3,964	\$2,621	\$475	\$6,553	\$2,184	\$22,584
6	\$2,400	\$3,600	\$5,759	\$6,991	\$4,083	\$2,700	\$489	\$6,749	\$2,250	\$23,262
7	\$2,472	\$3,708	\$5,932	\$7,201	\$4,205	\$2,781	\$504	\$6,952	\$2,317	\$23,960
8	\$2,546	\$3,819	\$6,110	\$7,417	\$4,331	\$2,864	\$519	\$7,160	\$2,387	\$24,678
9	\$2,622	\$3,933	\$6,293	\$7,639	\$4,461	\$2,950	\$535	\$7,375	\$2,458	\$25,419
10	\$2,701	\$4,051	\$6,482	\$7,869	\$4,595	\$3,038	\$551	\$7,596	\$2,532	\$26,181
11	\$2,782	\$4,173	\$6,677	\$8,105	\$4,733	\$3,130	\$567	\$7,824	\$2,608	\$26,967
12	\$2,865	\$4,298	\$6,877	\$8,348	\$4,875	\$3,224	\$584	\$8,059	\$2,686	\$27,776
13	\$2,951	\$4,427	\$7,083	\$8,598	\$5,021	\$3,320	\$602	\$8,301	\$2,767	\$28,609
14	\$3,040	\$4,560	\$7,296	\$8,856	\$5,172	\$3,420	\$620	\$8,550	\$2,850	\$29,467
15	\$3,131	\$4,697	\$7,515	\$9,122	\$5,327	\$3,522	\$639	\$8,806	\$2,935	\$30,351
16	\$3,225	\$4,837	\$7,740	\$9,396	\$5,487	\$3,628	\$658	\$9,070	\$3,023	\$31,262
17	\$3,322	\$4,983	\$7,972	\$9,677	\$5,651	\$3,737	\$677	\$9,342	\$3,114	\$32,200
18	\$3,421	\$5,132	\$8,211	\$9,968	\$5,821	\$3,849	\$698	\$9,623	\$3,208	\$33,166
19	\$3,524	\$5,286	\$8,458	\$10,267	\$5,995	\$3,965	\$719	\$9,911	\$3,304	\$34,161
20	\$3,630	\$5,445	\$8,711	\$10,575	\$6,175	\$4,083	\$740	\$10,209	\$3,403	\$35,185
21	\$3,739	\$5,608	\$8,973	\$10,892	\$6,361	\$4,206	\$762	\$10,515	\$3,505	\$36,241
22	\$3,851	\$5,776	\$9,242	\$11,219	\$6,551	\$4,332	\$785	\$10,830	\$3,610	\$37,328
23	\$3,966	\$5,950	\$9,519	\$11,555	\$6,748	\$4,462	\$809	\$11,155	\$3,718	\$38,448
24	\$4,085	\$6,128	\$9,805	\$11,902	\$6,950	\$4,596	\$833	\$11,490	\$3,830	\$39,601
25	\$4,208	\$6,312	\$10,099	\$12,259	\$7,159	\$4,734	\$858	\$11,835	\$3,945	\$40,790
26	\$4,334	\$6,501	\$10,402	\$12,627	\$7,374	\$4,876	\$884	\$12,190	\$4,063	\$42,013
27	\$4,464	\$6,696	\$10,714	\$13,006	\$7,595	\$5,022	\$910	\$12,555	\$4,185	\$43,274
28	\$4,598	\$6,897	\$11,035	\$13,396	\$7,823	\$5,173	\$938	\$12,932	\$4,311	\$44,572
29	\$4,736	\$7,104	\$11,366	\$13,798	\$8,057	\$5,328	\$966	\$13,320	\$4,440	\$45,909
30	\$4,878	\$7,317	\$11,707	\$14,212	\$8,299	\$5,488	\$995	\$13,720	\$4,573	\$47,286
31	\$5,024	\$7,537	\$12,059	\$14,638	\$8,548	\$5,652	\$1,025	\$14,131	\$4,710	\$48,705
32	\$5,175	\$7,763	\$12,420	\$15,077	\$8,805	\$5,822	\$1,055	\$14,555	\$4,852	\$50,166
33	\$5,330	\$7,996	\$12,793	\$15,530	\$9,069	\$5,997	\$1,087	\$14,992	\$4,997	\$51,671
34	\$5,490	\$8,236	\$13,177	\$15,995	\$9,341	\$6,177	\$1,120	\$15,442	\$5,147	\$53,221
35	\$5,655	\$8,483	\$13,572	\$16,475	\$9,621	\$6,362	\$1,153	\$15,905	\$5,302	\$54,818
36	\$5,825	\$8,737	\$13,979	\$16,970	\$9,910	\$6,553	\$1,188	\$16,382	\$5,461	\$56,462
37	\$5,999	\$8,999	\$14,399	\$17,479	\$10,207	\$6,749	\$1,223	\$16,873	\$5,624	\$58,156
38	\$6,179	\$9,269	\$14,831	\$18,003	\$10,513	\$6,952	\$1,260	\$17,380	\$5,793	\$59,901
39	\$6,365	\$9,547	\$15,276	\$18,543	\$10,828	\$7,160	\$1,298	\$17,901	\$5,967	\$61,698
40	\$6,556	\$9,834	\$15,734	\$19,099	\$11,153	\$7,375	\$1,337	\$18,438	\$6,146	\$63,549

HUC 12 # 102702070505 Annual Cost* After Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$207	\$621	\$2,484	\$1,206	\$1,761	\$1,164	\$422	\$2,911	\$970	\$8,435
2	\$213	\$640	\$2,559	\$1,242	\$1,814	\$1,199	\$435	\$2,998	\$999	\$8,688
3	\$220	\$659	\$2,635	\$1,280	\$1,868	\$1,235	\$448	\$3,088	\$1,029	\$8,948
4	\$226	\$679	\$2,714	\$1,318	\$1,924	\$1,272	\$461	\$3,181	\$1,060	\$9,217
5	\$233	\$699	\$2,796	\$1,358	\$1,982	\$1,311	\$475	\$3,276	\$1,092	\$9,493
6	\$240	\$720	\$2,880	\$1,398	\$2,041	\$1,350	\$489	\$3,375	\$1,125	\$9,778
7	\$247	\$742	\$2,966	\$1,440	\$2,103	\$1,390	\$504	\$3,476	\$1,159	\$10,072
8	\$255	\$764	\$3,055	\$1,483	\$2,166	\$1,432	\$519	\$3,580	\$1,193	\$10,374
9	\$262	\$787	\$3,147	\$1,528	\$2,231	\$1,475	\$535	\$3,687	\$1,229	\$10,685
10	\$270	\$810	\$3,241	\$1,574	\$2,298	\$1,519	\$551	\$3,798	\$1,266	\$11,005
11	\$278	\$835	\$3,338	\$1,621	\$2,366	\$1,565	\$567	\$3,912	\$1,304	\$11,336
12	\$287	\$860	\$3,438	\$1,670	\$2,437	\$1,612	\$584	\$4,029	\$1,343	\$11,676
13	\$295	\$885	\$3,542	\$1,720	\$2,511	\$1,660	\$602	\$4,150	\$1,383	\$12,026
14	\$304	\$912	\$3,648	\$1,771	\$2,586	\$1,710	\$620	\$4,275	\$1,425	\$12,387
15	\$313	\$939	\$3,757	\$1,824	\$2,663	\$1,761	\$639	\$4,403	\$1,468	\$12,758
16	\$322	\$967	\$3,870	\$1,879	\$2,743	\$1,814	\$658	\$4,535	\$1,512	\$13,141
17	\$332	\$997	\$3,986	\$1,935	\$2,826	\$1,868	\$677	\$4,671	\$1,557	\$13,535
18	\$342	\$1,026	\$4,106	\$1,994	\$2,910	\$1,925	\$698	\$4,811	\$1,604	\$13,941
19	\$352	\$1,057	\$4,229	\$2,053	\$2,998	\$1,982	\$719	\$4,956	\$1,652	\$14,360
20	\$363	\$1,089	\$4,356	\$2,115	\$3,088	\$2,042	\$740	\$5,104	\$1,701	\$14,790
21	\$374	\$1,122	\$4,486	\$2,178	\$3,180	\$2,103	\$762	\$5,257	\$1,752	\$15,234
22	\$385	\$1,155	\$4,621	\$2,244	\$3,276	\$2,166	\$785	\$5,415	\$1,805	\$15,691
23	\$397	\$1,190	\$4,760	\$2,311	\$3,374	\$2,231	\$809	\$5,578	\$1,859	\$16,162
24	\$409	\$1,226	\$4,902	\$2,380	\$3,475	\$2,298	\$833	\$5,745	\$1,915	\$16,647
25	\$421	\$1,262	\$5,049	\$2,452	\$3,579	\$2,367	\$858	\$5,917	\$1,972	\$17,146
26	\$433	\$1,300	\$5,201	\$2,525	\$3,687	\$2,438	\$884	\$6,095	\$2,032	\$17,660
27	\$446	\$1,339	\$5,357	\$2,601	\$3,797	\$2,511	\$910	\$6,278	\$2,093	\$18,190
28	\$460	\$1,379	\$5,518	\$2,679	\$3,911	\$2,586	\$938	\$6,466	\$2,155	\$18,736
29	\$474	\$1,421	\$5,683	\$2,760	\$4,029	\$2,664	\$966	\$6,660	\$2,220	\$19,298
30	\$488	\$1,463	\$5,854	\$2,842	\$4,150	\$2,744	\$995	\$6,860	\$2,287	\$19,877
31	\$502	\$1,507	\$6,029	\$2,928	\$4,274	\$2,826	\$1,025	\$7,066	\$2,355	\$20,473
32	\$518	\$1,553	\$6,210	\$3,015	\$4,402	\$2,911	\$1,055	\$7,278	\$2,426	\$21,088
33	\$533	\$1,599	\$6,397	\$3,106	\$4,534	\$2,998	\$1,087	\$7,496	\$2,499	\$21,720
34	\$549	\$1,647	\$6,588	\$3,199	\$4,670	\$3,088	\$1,120	\$7,721	\$2,574	\$22,372
35	\$566	\$1,697	\$6,786	\$3,295	\$4,810	\$3,181	\$1,153	\$7,952	\$2,651	\$23,043
36	\$582	\$1,747	\$6,990	\$3,394	\$4,955	\$3,276	\$1,188	\$8,191	\$2,730	\$23,734
37	\$600	\$1,800	\$7,199	\$3,496	\$5,103	\$3,375	\$1,223	\$8,437	\$2,812	\$24,446
38	\$618	\$1,854	\$7,415	\$3,601	\$5,257	\$3,476	\$1,260	\$8,690	\$2,897	\$25,180
39	\$636	\$1,909	\$7,638	\$3,709	\$5,414	\$3,580	\$1,298	\$8,951	\$2,984	\$25,935
40	\$656	\$1,967	\$7,867	\$3,820	\$5,577	\$3,688	\$1,337	\$9,219	\$3,073	\$26,713

HUC 12 # 102702070601 Annual Cost* Before Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$2,223	\$3,335	\$5,335	\$6,476	\$3,782	\$2,501	\$453	\$6,252	\$2,084	\$21,549
2	\$2,290	\$3,435	\$5,495	\$6,671	\$3,895	\$2,576	\$467	\$6,440	\$2,147	\$22,195
3	\$2,358	\$3,538	\$5,660	\$6,871	\$4,012	\$2,653	\$481	\$6,633	\$2,211	\$22,861
4	\$2,429	\$3,644	\$5,830	\$7,077	\$4,133	\$2,733	\$495	\$6,832	\$2,277	\$23,547
5	\$2,502	\$3,753	\$6,005	\$7,289	\$4,257	\$2,815	\$510	\$7,037	\$2,346	\$24,253
6	\$2,577	\$3,866	\$6,185	\$7,508	\$4,384	\$2,899	\$526	\$7,248	\$2,416	\$24,981
7	\$2,654	\$3,982	\$6,371	\$7,733	\$4,516	\$2,986	\$541	\$7,465	\$2,488	\$25,730
8	\$2,734	\$4,101	\$6,562	\$7,965	\$4,651	\$3,076	\$558	\$7,689	\$2,563	\$26,502
9	\$2,816	\$4,224	\$6,758	\$8,204	\$4,791	\$3,168	\$574	\$7,920	\$2,640	\$27,297
10	\$2,901	\$4,351	\$6,961	\$8,450	\$4,935	\$3,263	\$591	\$8,158	\$2,719	\$28,116
11	\$2,988	\$4,481	\$7,170	\$8,704	\$5,083	\$3,361	\$609	\$8,402	\$2,801	\$28,960
12	\$3,077	\$4,616	\$7,385	\$8,965	\$5,235	\$3,462	\$628	\$8,654	\$2,885	\$29,829
13	\$3,169	\$4,754	\$7,607	\$9,234	\$5,392	\$3,566	\$646	\$8,914	\$2,971	\$30,724
14	\$3,265	\$4,897	\$7,835	\$9,511	\$5,554	\$3,673	\$666	\$9,182	\$3,061	\$31,645
15	\$3,362	\$5,044	\$8,070	\$9,796	\$5,721	\$3,783	\$686	\$9,457	\$3,152	\$32,595
16	\$3,463	\$5,195	\$8,312	\$10,090	\$5,892	\$3,896	\$706	\$9,741	\$3,247	\$33,572
17	\$3,567	\$5,351	\$8,561	\$10,393	\$6,069	\$4,013	\$727	\$10,033	\$3,344	\$34,580
18	\$3,674	\$5,511	\$8,818	\$10,705	\$6,251	\$4,134	\$749	\$10,334	\$3,445	\$35,617
19	\$3,785	\$5,677	\$9,083	\$11,026	\$6,439	\$4,258	\$772	\$10,644	\$3,548	\$36,686
20	\$3,898	\$5,847	\$9,355	\$11,356	\$6,632	\$4,385	\$795	\$10,963	\$3,654	\$37,786
21	\$4,015	\$6,022	\$9,636	\$11,697	\$6,831	\$4,517	\$819	\$11,292	\$3,764	\$38,920
22	\$4,135	\$6,203	\$9,925	\$12,048	\$7,036	\$4,652	\$843	\$11,631	\$3,877	\$40,087
23	\$4,259	\$6,389	\$10,223	\$12,410	\$7,247	\$4,792	\$869	\$11,980	\$3,993	\$41,290
24	\$4,387	\$6,581	\$10,529	\$12,782	\$7,464	\$4,936	\$895	\$12,339	\$4,113	\$42,529
25	\$4,519	\$6,778	\$10,845	\$13,165	\$7,688	\$5,084	\$922	\$12,709	\$4,236	\$43,804
26	\$4,654	\$6,982	\$11,171	\$13,560	\$7,919	\$5,236	\$949	\$13,091	\$4,364	\$45,119
27	\$4,794	\$7,191	\$11,506	\$13,967	\$8,156	\$5,393	\$978	\$13,483	\$4,494	\$46,472
28	\$4,938	\$7,407	\$11,851	\$14,386	\$8,401	\$5,555	\$1,007	\$13,888	\$4,629	\$47,866
29	\$5,086	\$7,629	\$12,207	\$14,818	\$8,653	\$5,722	\$1,037	\$14,305	\$4,768	\$49,302
30	\$5,239	\$7,858	\$12,573	\$15,262	\$8,913	\$5,893	\$1,068	\$14,734	\$4,911	\$50,781
31	\$5,396	\$8,094	\$12,950	\$15,720	\$9,180	\$6,070	\$1,100	\$15,176	\$5,059	\$52,305
32	\$5,558	\$8,337	\$13,338	\$16,192	\$9,455	\$6,252	\$1,133	\$15,631	\$5,210	\$53,874
33	\$5,724	\$8,587	\$13,739	\$16,677	\$9,739	\$6,440	\$1,167	\$16,100	\$5,367	\$55,490
34	\$5,896	\$8,844	\$14,151	\$17,178	\$10,031	\$6,633	\$1,202	\$16,583	\$5,528	\$57,155
35	\$6,073	\$9,110	\$14,575	\$17,693	\$10,332	\$6,832	\$1,238	\$17,080	\$5,693	\$58,869
36	\$6,255	\$9,383	\$15,013	\$18,224	\$10,642	\$7,037	\$1,276	\$17,593	\$5,864	\$60,636
37	\$6,443	\$9,664	\$15,463	\$18,771	\$10,961	\$7,248	\$1,314	\$18,121	\$6,040	\$62,455
38	\$6,636	\$9,954	\$15,927	\$19,334	\$11,290	\$7,466	\$1,353	\$18,664	\$6,221	\$64,328
39	\$6,835	\$10,253	\$16,405	\$19,914	\$11,629	\$7,690	\$1,394	\$19,224	\$6,408	\$66,258
40	\$7,040	\$10,560	\$16,897	\$20,511	\$11,978	\$7,920	\$1,436	\$19,801	\$6,600	\$68,246

HUC 12 # 102702070601 Annual Cost* After Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$222	\$667	\$2,668	\$1,295	\$1,891	\$1,250	\$453	\$3,126	\$1,042	\$9,058
2	\$229	\$687	\$2,748	\$1,334	\$1,948	\$1,288	\$467	\$3,220	\$1,073	\$9,330
3	\$236	\$708	\$2,830	\$1,374	\$2,006	\$1,327	\$481	\$3,316	\$1,105	\$9,610
4	\$243	\$729	\$2,915	\$1,415	\$2,066	\$1,366	\$495	\$3,416	\$1,139	\$9,898
5	\$250	\$751	\$3,002	\$1,458	\$2,128	\$1,407	\$510	\$3,518	\$1,173	\$10,195
6	\$258	\$773	\$3,092	\$1,502	\$2,192	\$1,450	\$526	\$3,624	\$1,208	\$10,501
7	\$265	\$796	\$3,185	\$1,547	\$2,258	\$1,493	\$541	\$3,733	\$1,244	\$10,816
8	\$273	\$820	\$3,281	\$1,593	\$2,326	\$1,538	\$558	\$3,845	\$1,282	\$11,140
9	\$282	\$845	\$3,379	\$1,641	\$2,395	\$1,584	\$574	\$3,960	\$1,320	\$11,475
10	\$290	\$870	\$3,481	\$1,690	\$2,467	\$1,632	\$591	\$4,079	\$1,360	\$11,819
11	\$299	\$896	\$3,585	\$1,741	\$2,541	\$1,680	\$609	\$4,201	\$1,400	\$12,173
12	\$308	\$923	\$3,693	\$1,793	\$2,618	\$1,731	\$628	\$4,327	\$1,442	\$12,539
13	\$317	\$951	\$3,803	\$1,847	\$2,696	\$1,783	\$646	\$4,457	\$1,486	\$12,915
14	\$326	\$979	\$3,917	\$1,902	\$2,777	\$1,836	\$666	\$4,591	\$1,530	\$13,302
15	\$336	\$1,009	\$4,035	\$1,959	\$2,860	\$1,891	\$686	\$4,728	\$1,576	\$13,701
16	\$346	\$1,039	\$4,156	\$2,018	\$2,946	\$1,948	\$706	\$4,870	\$1,623	\$14,112
17	\$357	\$1,070	\$4,281	\$2,079	\$3,034	\$2,007	\$727	\$5,016	\$1,672	\$14,536
18	\$367	\$1,102	\$4,409	\$2,141	\$3,126	\$2,067	\$749	\$5,167	\$1,722	\$14,972
19	\$378	\$1,135	\$4,541	\$2,205	\$3,219	\$2,129	\$772	\$5,322	\$1,774	\$15,421
20	\$390	\$1,169	\$4,678	\$2,271	\$3,316	\$2,193	\$795	\$5,482	\$1,827	\$15,884
21	\$401	\$1,204	\$4,818	\$2,339	\$3,415	\$2,258	\$819	\$5,646	\$1,882	\$16,360
22	\$414	\$1,241	\$4,963	\$2,410	\$3,518	\$2,326	\$843	\$5,815	\$1,938	\$16,851
23	\$426	\$1,278	\$5,111	\$2,482	\$3,623	\$2,396	\$869	\$5,990	\$1,997	\$17,356
24	\$439	\$1,316	\$5,265	\$2,556	\$3,732	\$2,468	\$895	\$6,170	\$2,057	\$17,877
25	\$452	\$1,356	\$5,423	\$2,633	\$3,844	\$2,542	\$922	\$6,355	\$2,118	\$18,413
26	\$465	\$1,396	\$5,585	\$2,712	\$3,959	\$2,618	\$949	\$6,545	\$2,182	\$18,966
27	\$479	\$1,438	\$5,753	\$2,793	\$4,078	\$2,697	\$978	\$6,742	\$2,247	\$19,535
28	\$494	\$1,481	\$5,926	\$2,877	\$4,200	\$2,778	\$1,007	\$6,944	\$2,315	\$20,121
29	\$509	\$1,526	\$6,103	\$2,964	\$4,326	\$2,861	\$1,037	\$7,152	\$2,384	\$20,724
30	\$524	\$1,572	\$6,286	\$3,052	\$4,456	\$2,947	\$1,068	\$7,367	\$2,456	\$21,346
31	\$540	\$1,619	\$6,475	\$3,144	\$4,590	\$3,035	\$1,100	\$7,588	\$2,529	\$21,987
32	\$556	\$1,667	\$6,669	\$3,238	\$4,728	\$3,126	\$1,133	\$7,815	\$2,605	\$22,646
33	\$572	\$1,717	\$6,869	\$3,335	\$4,869	\$3,220	\$1,167	\$8,050	\$2,683	\$23,326
34	\$590	\$1,769	\$7,075	\$3,436	\$5,016	\$3,317	\$1,202	\$8,291	\$2,764	\$24,025
35	\$607	\$1,822	\$7,288	\$3,539	\$5,166	\$3,416	\$1,238	\$8,540	\$2,847	\$24,746
36	\$626	\$1,877	\$7,506	\$3,645	\$5,321	\$3,519	\$1,276	\$8,796	\$2,932	\$25,488
37	\$644	\$1,933	\$7,731	\$3,754	\$5,481	\$3,624	\$1,314	\$9,060	\$3,020	\$26,253
38	\$664	\$1,991	\$7,963	\$3,867	\$5,645	\$3,733	\$1,353	\$9,332	\$3,111	\$27,041
39	\$684	\$2,051	\$8,202	\$3,983	\$5,814	\$3,845	\$1,394	\$9,612	\$3,204	\$27,852
40	\$704	\$2,112	\$8,448	\$4,102	\$5,989	\$3,960	\$1,436	\$9,900	\$3,300	\$28,687

HUC 12 # 102702070602 Annual Cost* Before Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$1,524	\$2,286	\$3,657	\$4,439	\$2,592	\$1,714	\$311	\$4,285	\$1,428	\$14,770
2	\$1,569	\$2,354	\$3,767	\$4,572	\$2,670	\$1,766	\$320	\$4,414	\$1,471	\$15,213
3	\$1,616	\$2,425	\$3,879	\$4,709	\$2,750	\$1,819	\$330	\$4,546	\$1,515	\$15,669
4	\$1,665	\$2,497	\$3,996	\$4,851	\$2,833	\$1,873	\$340	\$4,683	\$1,561	\$16,139
5	\$1,715	\$2,572	\$4,116	\$4,996	\$2,918	\$1,929	\$350	\$4,823	\$1,608	\$16,624
6	\$1,766	\$2,650	\$4,239	\$5,146	\$3,005	\$1,987	\$360	\$4,968	\$1,656	\$17,122
7	\$1,819	\$2,729	\$4,366	\$5,300	\$3,095	\$2,047	\$371	\$5,117	\$1,706	\$17,636
8	\$1,874	\$2,811	\$4,497	\$5,459	\$3,188	\$2,108	\$382	\$5,270	\$1,757	\$18,165
9	\$1,930	\$2,895	\$4,632	\$5,623	\$3,284	\$2,171	\$394	\$5,429	\$1,810	\$18,710
10	\$1,988	\$2,982	\$4,771	\$5,792	\$3,382	\$2,237	\$405	\$5,591	\$1,864	\$19,271
11	\$2,048	\$3,072	\$4,914	\$5,966	\$3,484	\$2,304	\$418	\$5,759	\$1,920	\$19,849
12	\$2,109	\$3,164	\$5,062	\$6,145	\$3,588	\$2,373	\$430	\$5,932	\$1,977	\$20,445
13	\$2,172	\$3,259	\$5,214	\$6,329	\$3,696	\$2,444	\$443	\$6,110	\$2,037	\$21,058
14	\$2,238	\$3,356	\$5,370	\$6,519	\$3,807	\$2,517	\$456	\$6,293	\$2,098	\$21,690
15	\$2,305	\$3,457	\$5,531	\$6,714	\$3,921	\$2,593	\$470	\$6,482	\$2,161	\$22,341
16	\$2,374	\$3,561	\$5,697	\$6,916	\$4,039	\$2,671	\$484	\$6,676	\$2,225	\$23,011
17	\$2,445	\$3,668	\$5,868	\$7,123	\$4,160	\$2,751	\$499	\$6,877	\$2,292	\$23,701
18	\$2,518	\$3,778	\$6,044	\$7,337	\$4,285	\$2,833	\$514	\$7,083	\$2,361	\$24,412
19	\$2,594	\$3,891	\$6,225	\$7,557	\$4,413	\$2,918	\$529	\$7,295	\$2,432	\$25,145
20	\$2,672	\$4,008	\$6,412	\$7,784	\$4,545	\$3,006	\$545	\$7,514	\$2,505	\$25,899
21	\$2,752	\$4,128	\$6,605	\$8,017	\$4,682	\$3,096	\$561	\$7,740	\$2,580	\$26,676
22	\$2,834	\$4,252	\$6,803	\$8,258	\$4,822	\$3,189	\$578	\$7,972	\$2,657	\$27,476
23	\$2,920	\$4,379	\$7,007	\$8,506	\$4,967	\$3,284	\$595	\$8,211	\$2,737	\$28,300
24	\$3,007	\$4,511	\$7,217	\$8,761	\$5,116	\$3,383	\$613	\$8,457	\$2,819	\$29,150
25	\$3,097	\$4,646	\$7,434	\$9,024	\$5,269	\$3,484	\$632	\$8,711	\$2,904	\$30,024
26	\$3,190	\$4,785	\$7,657	\$9,294	\$5,428	\$3,589	\$651	\$8,972	\$2,991	\$30,925
27	\$3,286	\$4,929	\$7,886	\$9,573	\$5,590	\$3,697	\$670	\$9,242	\$3,081	\$31,852
28	\$3,385	\$5,077	\$8,123	\$9,860	\$5,758	\$3,808	\$690	\$9,519	\$3,173	\$32,808
29	\$3,486	\$5,229	\$8,366	\$10,156	\$5,931	\$3,922	\$711	\$9,804	\$3,268	\$33,792
30	\$3,591	\$5,386	\$8,617	\$10,461	\$6,109	\$4,039	\$732	\$10,099	\$3,366	\$34,806
31	\$3,698	\$5,548	\$8,876	\$10,775	\$6,292	\$4,161	\$754	\$10,402	\$3,467	\$35,850
32	\$3,809	\$5,714	\$9,142	\$11,098	\$6,481	\$4,285	\$777	\$10,714	\$3,571	\$36,926
33	\$3,924	\$5,885	\$9,417	\$11,431	\$6,675	\$4,414	\$800	\$11,035	\$3,678	\$38,033
34	\$4,041	\$6,062	\$9,699	\$11,774	\$6,875	\$4,546	\$824	\$11,366	\$3,789	\$39,175
35	\$4,163	\$6,244	\$9,990	\$12,127	\$7,082	\$4,683	\$849	\$11,707	\$3,902	\$40,350
36	\$4,287	\$6,431	\$10,290	\$12,491	\$7,294	\$4,823	\$874	\$12,058	\$4,019	\$41,560
37	\$4,416	\$6,624	\$10,598	\$12,865	\$7,513	\$4,968	\$901	\$12,420	\$4,140	\$42,807
38	\$4,548	\$6,823	\$10,916	\$13,251	\$7,738	\$5,117	\$928	\$12,793	\$4,264	\$44,091
39	\$4,685	\$7,027	\$11,244	\$13,649	\$7,970	\$5,271	\$955	\$13,176	\$4,392	\$45,414
40	\$4,825	\$7,238	\$11,581	\$14,058	\$8,210	\$5,429	\$984	\$13,572	\$4,524	\$46,776

HUC 12 # 102702070602 Annual Cost* After Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$152	\$457	\$1,828	\$888	\$1,296	\$857	\$311	\$2,143	\$714	\$6,209
2	\$157	\$471	\$1,883	\$914	\$1,335	\$883	\$320	\$2,207	\$736	\$6,395
3	\$162	\$485	\$1,940	\$942	\$1,375	\$909	\$330	\$2,273	\$758	\$6,587
4	\$166	\$499	\$1,998	\$970	\$1,416	\$937	\$340	\$2,341	\$780	\$6,784
5	\$171	\$514	\$2,058	\$999	\$1,459	\$965	\$350	\$2,412	\$804	\$6,988
6	\$177	\$530	\$2,120	\$1,029	\$1,503	\$994	\$360	\$2,484	\$828	\$7,197
7	\$182	\$546	\$2,183	\$1,060	\$1,548	\$1,023	\$371	\$2,558	\$853	\$7,413
8	\$187	\$562	\$2,249	\$1,092	\$1,594	\$1,054	\$382	\$2,635	\$878	\$7,636
9	\$193	\$579	\$2,316	\$1,125	\$1,642	\$1,086	\$394	\$2,714	\$905	\$7,865
10	\$199	\$596	\$2,386	\$1,158	\$1,691	\$1,118	\$405	\$2,796	\$932	\$8,101
11	\$205	\$614	\$2,457	\$1,193	\$1,742	\$1,152	\$418	\$2,880	\$960	\$8,344
12	\$211	\$633	\$2,531	\$1,229	\$1,794	\$1,186	\$430	\$2,966	\$989	\$8,594
13	\$217	\$652	\$2,607	\$1,266	\$1,848	\$1,222	\$443	\$3,055	\$1,018	\$8,852
14	\$224	\$671	\$2,685	\$1,304	\$1,903	\$1,259	\$456	\$3,147	\$1,049	\$9,117
15	\$230	\$691	\$2,766	\$1,343	\$1,960	\$1,296	\$470	\$3,241	\$1,080	\$9,391
16	\$237	\$712	\$2,849	\$1,383	\$2,019	\$1,335	\$484	\$3,338	\$1,113	\$9,673
17	\$245	\$734	\$2,934	\$1,425	\$2,080	\$1,375	\$499	\$3,438	\$1,146	\$9,963
18	\$252	\$756	\$3,022	\$1,467	\$2,142	\$1,417	\$514	\$3,541	\$1,180	\$10,262
19	\$259	\$778	\$3,113	\$1,511	\$2,207	\$1,459	\$529	\$3,648	\$1,216	\$10,570
20	\$267	\$802	\$3,206	\$1,557	\$2,273	\$1,503	\$545	\$3,757	\$1,252	\$10,887
21	\$275	\$826	\$3,302	\$1,603	\$2,341	\$1,548	\$561	\$3,870	\$1,290	\$11,213
22	\$283	\$850	\$3,401	\$1,652	\$2,411	\$1,594	\$578	\$3,986	\$1,329	\$11,550
23	\$292	\$876	\$3,503	\$1,701	\$2,483	\$1,642	\$595	\$4,106	\$1,369	\$11,896
24	\$301	\$902	\$3,609	\$1,752	\$2,558	\$1,691	\$613	\$4,229	\$1,410	\$12,253
25	\$310	\$929	\$3,717	\$1,805	\$2,635	\$1,742	\$632	\$4,356	\$1,452	\$12,621
26	\$319	\$957	\$3,828	\$1,859	\$2,714	\$1,794	\$651	\$4,486	\$1,495	\$12,999
27	\$329	\$986	\$3,943	\$1,915	\$2,795	\$1,848	\$670	\$4,621	\$1,540	\$13,389
28	\$338	\$1,015	\$4,061	\$1,972	\$2,879	\$1,904	\$690	\$4,759	\$1,586	\$13,791
29	\$349	\$1,046	\$4,183	\$2,031	\$2,965	\$1,961	\$711	\$4,902	\$1,634	\$14,205
30	\$359	\$1,077	\$4,309	\$2,092	\$3,054	\$2,020	\$732	\$5,049	\$1,683	\$14,631
31	\$370	\$1,110	\$4,438	\$2,155	\$3,146	\$2,080	\$754	\$5,201	\$1,734	\$15,070
32	\$381	\$1,143	\$4,571	\$2,220	\$3,240	\$2,143	\$777	\$5,357	\$1,786	\$15,522
33	\$392	\$1,177	\$4,708	\$2,286	\$3,338	\$2,207	\$800	\$5,518	\$1,839	\$15,988
34	\$404	\$1,212	\$4,850	\$2,355	\$3,438	\$2,273	\$824	\$5,683	\$1,894	\$16,467
35	\$416	\$1,249	\$4,995	\$2,425	\$3,541	\$2,341	\$849	\$5,854	\$1,951	\$16,961
36	\$429	\$1,286	\$5,145	\$2,498	\$3,647	\$2,412	\$874	\$6,029	\$2,010	\$17,470
37	\$442	\$1,325	\$5,299	\$2,573	\$3,756	\$2,484	\$901	\$6,210	\$2,070	\$17,994
38	\$455	\$1,365	\$5,458	\$2,650	\$3,869	\$2,559	\$928	\$6,396	\$2,132	\$18,534
39	\$468	\$1,405	\$5,622	\$2,730	\$3,985	\$2,635	\$955	\$6,588	\$2,196	\$19,090
40	\$483	\$1,448	\$5,791	\$2,812	\$4,105	\$2,714	\$984	\$6,786	\$2,262	\$19,663

HUC 12 # 102702070603 Annual Cost* Before Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$1,960	\$2,939	\$4,703	\$5,709	\$3,334	\$2,204	\$400	\$5,511	\$1,837	\$18,995
2	\$2,018	\$3,027	\$4,844	\$5,880	\$3,434	\$2,271	\$412	\$5,676	\$1,892	\$19,564
3	\$2,079	\$3,118	\$4,989	\$6,056	\$3,537	\$2,339	\$424	\$5,847	\$1,949	\$20,151
4	\$2,141	\$3,212	\$5,139	\$6,238	\$3,643	\$2,409	\$437	\$6,022	\$2,007	\$20,756
5	\$2,205	\$3,308	\$5,293	\$6,425	\$3,752	\$2,481	\$450	\$6,203	\$2,068	\$21,379
6	\$2,272	\$3,407	\$5,452	\$6,618	\$3,865	\$2,556	\$463	\$6,389	\$2,130	\$22,020
7	\$2,340	\$3,510	\$5,615	\$6,817	\$3,981	\$2,632	\$477	\$6,581	\$2,194	\$22,681
8	\$2,410	\$3,615	\$5,784	\$7,021	\$4,100	\$2,711	\$491	\$6,778	\$2,259	\$23,361
9	\$2,482	\$3,723	\$5,957	\$7,232	\$4,223	\$2,793	\$506	\$6,981	\$2,327	\$24,062
10	\$2,557	\$3,835	\$6,136	\$7,449	\$4,350	\$2,876	\$521	\$7,191	\$2,397	\$24,784
11	\$2,633	\$3,950	\$6,320	\$7,672	\$4,480	\$2,963	\$537	\$7,406	\$2,469	\$25,527
12	\$2,712	\$4,069	\$6,510	\$7,902	\$4,615	\$3,051	\$553	\$7,629	\$2,543	\$26,293
13	\$2,794	\$4,191	\$6,705	\$8,139	\$4,753	\$3,143	\$570	\$7,858	\$2,619	\$27,082
14	\$2,878	\$4,316	\$6,906	\$8,384	\$4,896	\$3,237	\$587	\$8,093	\$2,698	\$27,894
15	\$2,964	\$4,446	\$7,113	\$8,635	\$5,043	\$3,334	\$604	\$8,336	\$2,779	\$28,731
16	\$3,053	\$4,579	\$7,327	\$8,894	\$5,194	\$3,434	\$623	\$8,586	\$2,862	\$29,593
17	\$3,144	\$4,717	\$7,547	\$9,161	\$5,350	\$3,537	\$641	\$8,844	\$2,948	\$30,481
18	\$3,239	\$4,858	\$7,773	\$9,436	\$5,510	\$3,644	\$660	\$9,109	\$3,036	\$31,395
19	\$3,336	\$5,004	\$8,006	\$9,719	\$5,675	\$3,753	\$680	\$9,382	\$3,127	\$32,337
20	\$3,436	\$5,154	\$8,246	\$10,010	\$5,846	\$3,865	\$701	\$9,664	\$3,221	\$33,307
21	\$3,539	\$5,309	\$8,494	\$10,311	\$6,021	\$3,981	\$722	\$9,954	\$3,318	\$34,306
22	\$3,645	\$5,468	\$8,749	\$10,620	\$6,202	\$4,101	\$743	\$10,252	\$3,417	\$35,336
23	\$3,755	\$5,632	\$9,011	\$10,939	\$6,388	\$4,224	\$766	\$10,560	\$3,520	\$36,396
24	\$3,867	\$5,801	\$9,281	\$11,267	\$6,579	\$4,351	\$789	\$10,877	\$3,626	\$37,488
25	\$3,983	\$5,975	\$9,560	\$11,605	\$6,777	\$4,481	\$812	\$11,203	\$3,734	\$38,612
26	\$4,103	\$6,154	\$9,847	\$11,953	\$6,980	\$4,616	\$837	\$11,539	\$3,846	\$39,770
27	\$4,226	\$6,339	\$10,142	\$12,311	\$7,189	\$4,754	\$862	\$11,885	\$3,962	\$40,964
28	\$4,353	\$6,529	\$10,446	\$12,681	\$7,405	\$4,897	\$888	\$12,242	\$4,081	\$42,193
29	\$4,483	\$6,725	\$10,760	\$13,061	\$7,627	\$5,044	\$914	\$12,609	\$4,203	\$43,458
30	\$4,618	\$6,927	\$11,082	\$13,453	\$7,856	\$5,195	\$942	\$12,987	\$4,329	\$44,762
31	\$4,756	\$7,134	\$11,415	\$13,857	\$8,092	\$5,351	\$970	\$13,377	\$4,459	\$46,105
32	\$4,899	\$7,348	\$11,757	\$14,272	\$8,335	\$5,511	\$999	\$13,778	\$4,593	\$47,488
33	\$5,046	\$7,569	\$12,110	\$14,701	\$8,585	\$5,677	\$1,029	\$14,192	\$4,731	\$48,913
34	\$5,197	\$7,796	\$12,473	\$15,142	\$8,842	\$5,847	\$1,060	\$14,617	\$4,872	\$50,380
35	\$5,353	\$8,030	\$12,848	\$15,596	\$9,107	\$6,022	\$1,092	\$15,056	\$5,019	\$51,891
36	\$5,514	\$8,271	\$13,233	\$16,064	\$9,381	\$6,203	\$1,124	\$15,507	\$5,169	\$53,448
37	\$5,679	\$8,519	\$13,630	\$16,546	\$9,662	\$6,389	\$1,158	\$15,973	\$5,324	\$55,052
38	\$5,850	\$8,774	\$14,039	\$17,042	\$9,952	\$6,581	\$1,193	\$16,452	\$5,484	\$56,703
39	\$6,025	\$9,038	\$14,460	\$17,553	\$10,250	\$6,778	\$1,229	\$16,945	\$5,648	\$58,404
40	\$6,206	\$9,309	\$14,894	\$18,080	\$10,558	\$6,982	\$1,266	\$17,454	\$5,818	\$60,156

HUC 12 # 102702070603 Annual Cost* After Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$196	\$588	\$2,351	\$1,142	\$1,667	\$1,102	\$400	\$2,756	\$919	\$7,984
2	\$202	\$605	\$2,422	\$1,176	\$1,717	\$1,135	\$412	\$2,838	\$946	\$8,224
3	\$208	\$624	\$2,495	\$1,211	\$1,768	\$1,169	\$424	\$2,923	\$974	\$8,471
4	\$214	\$642	\$2,569	\$1,248	\$1,821	\$1,204	\$437	\$3,011	\$1,004	\$8,725
5	\$221	\$662	\$2,647	\$1,285	\$1,876	\$1,241	\$450	\$3,101	\$1,034	\$8,987
6	\$227	\$681	\$2,726	\$1,324	\$1,932	\$1,278	\$463	\$3,194	\$1,065	\$9,256
7	\$234	\$702	\$2,808	\$1,363	\$1,990	\$1,316	\$477	\$3,290	\$1,097	\$9,534
8	\$241	\$723	\$2,892	\$1,404	\$2,050	\$1,356	\$491	\$3,389	\$1,130	\$9,820
9	\$248	\$745	\$2,979	\$1,446	\$2,112	\$1,396	\$506	\$3,491	\$1,164	\$10,114
10	\$256	\$767	\$3,068	\$1,490	\$2,175	\$1,438	\$521	\$3,595	\$1,198	\$10,418
11	\$263	\$790	\$3,160	\$1,534	\$2,240	\$1,481	\$537	\$3,703	\$1,234	\$10,730
12	\$271	\$814	\$3,255	\$1,580	\$2,307	\$1,526	\$553	\$3,814	\$1,271	\$11,052
13	\$279	\$838	\$3,353	\$1,628	\$2,377	\$1,572	\$570	\$3,929	\$1,310	\$11,384
14	\$288	\$863	\$3,453	\$1,677	\$2,448	\$1,619	\$587	\$4,047	\$1,349	\$11,725
15	\$296	\$889	\$3,557	\$1,727	\$2,521	\$1,667	\$604	\$4,168	\$1,389	\$12,077
16	\$305	\$916	\$3,663	\$1,779	\$2,597	\$1,717	\$623	\$4,293	\$1,431	\$12,440
17	\$314	\$943	\$3,773	\$1,832	\$2,675	\$1,769	\$641	\$4,422	\$1,474	\$12,813
18	\$324	\$972	\$3,887	\$1,887	\$2,755	\$1,822	\$660	\$4,554	\$1,518	\$13,197
19	\$334	\$1,001	\$4,003	\$1,944	\$2,838	\$1,876	\$680	\$4,691	\$1,564	\$13,593
20	\$344	\$1,031	\$4,123	\$2,002	\$2,923	\$1,933	\$701	\$4,832	\$1,611	\$14,001
21	\$354	\$1,062	\$4,247	\$2,062	\$3,011	\$1,991	\$722	\$4,977	\$1,659	\$14,421
22	\$365	\$1,094	\$4,374	\$2,124	\$3,101	\$2,050	\$743	\$5,126	\$1,709	\$14,853
23	\$375	\$1,126	\$4,506	\$2,188	\$3,194	\$2,112	\$766	\$5,280	\$1,760	\$15,299
24	\$387	\$1,160	\$4,641	\$2,253	\$3,290	\$2,175	\$789	\$5,438	\$1,813	\$15,758
25	\$398	\$1,195	\$4,780	\$2,321	\$3,388	\$2,241	\$812	\$5,601	\$1,867	\$16,231
26	\$410	\$1,231	\$4,923	\$2,391	\$3,490	\$2,308	\$837	\$5,770	\$1,923	\$16,718
27	\$423	\$1,268	\$5,071	\$2,462	\$3,595	\$2,377	\$862	\$5,943	\$1,981	\$17,219
28	\$435	\$1,306	\$5,223	\$2,536	\$3,703	\$2,448	\$888	\$6,121	\$2,040	\$17,736
29	\$448	\$1,345	\$5,380	\$2,612	\$3,814	\$2,522	\$914	\$6,304	\$2,101	\$18,268
30	\$462	\$1,385	\$5,541	\$2,691	\$3,928	\$2,597	\$942	\$6,494	\$2,165	\$18,816
31	\$476	\$1,427	\$5,707	\$2,771	\$4,046	\$2,675	\$970	\$6,688	\$2,229	\$19,380
32	\$490	\$1,470	\$5,879	\$2,854	\$4,167	\$2,756	\$999	\$6,889	\$2,296	\$19,962
33	\$505	\$1,514	\$6,055	\$2,940	\$4,292	\$2,838	\$1,029	\$7,096	\$2,365	\$20,561
34	\$520	\$1,559	\$6,237	\$3,028	\$4,421	\$2,923	\$1,060	\$7,309	\$2,436	\$21,177
35	\$535	\$1,606	\$6,424	\$3,119	\$4,554	\$3,011	\$1,092	\$7,528	\$2,509	\$21,813
36	\$551	\$1,654	\$6,617	\$3,213	\$4,690	\$3,101	\$1,124	\$7,754	\$2,585	\$22,467
37	\$568	\$1,704	\$6,815	\$3,309	\$4,831	\$3,195	\$1,158	\$7,986	\$2,662	\$23,141
38	\$585	\$1,755	\$7,019	\$3,408	\$4,976	\$3,290	\$1,193	\$8,226	\$2,742	\$23,835
39	\$603	\$1,808	\$7,230	\$3,511	\$5,125	\$3,389	\$1,229	\$8,473	\$2,824	\$24,551
40	\$621	\$1,862	\$7,447	\$3,616	\$5,279	\$3,491	\$1,266	\$8,727	\$2,909	\$25,287

HUC 12 # 102702070606 Annual Cost* Before Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$2,988	\$4,482	\$7,171	\$8,705	\$5,083	\$3,362	\$609	\$8,404	\$2,801	\$28,964
2	\$3,078	\$4,616	\$7,386	\$8,966	\$5,236	\$3,462	\$628	\$8,656	\$2,885	\$29,833
3	\$3,170	\$4,755	\$7,608	\$9,235	\$5,393	\$3,566	\$646	\$8,916	\$2,972	\$30,728
4	\$3,265	\$4,898	\$7,836	\$9,512	\$5,555	\$3,673	\$666	\$9,183	\$3,061	\$31,650
5	\$3,363	\$5,045	\$8,071	\$9,798	\$5,722	\$3,783	\$686	\$9,458	\$3,153	\$32,600
6	\$3,464	\$5,196	\$8,313	\$10,092	\$5,893	\$3,897	\$706	\$9,742	\$3,247	\$33,578
7	\$3,568	\$5,352	\$8,563	\$10,394	\$6,070	\$4,014	\$728	\$10,035	\$3,345	\$34,585
8	\$3,675	\$5,512	\$8,820	\$10,706	\$6,252	\$4,134	\$749	\$10,336	\$3,445	\$35,623
9	\$3,785	\$5,678	\$9,084	\$11,027	\$6,440	\$4,258	\$772	\$10,646	\$3,549	\$36,691
10	\$3,899	\$5,848	\$9,357	\$11,358	\$6,633	\$4,386	\$795	\$10,965	\$3,655	\$37,792
11	\$4,016	\$6,023	\$9,637	\$11,699	\$6,832	\$4,518	\$819	\$11,294	\$3,765	\$38,926
12	\$4,136	\$6,204	\$9,927	\$12,050	\$7,037	\$4,653	\$843	\$11,633	\$3,878	\$40,094
13	\$4,260	\$6,390	\$10,224	\$12,411	\$7,248	\$4,793	\$869	\$11,982	\$3,994	\$41,296
14	\$4,388	\$6,582	\$10,531	\$12,784	\$7,465	\$4,936	\$895	\$12,341	\$4,114	\$42,535
15	\$4,520	\$6,779	\$10,847	\$13,167	\$7,689	\$5,085	\$922	\$12,711	\$4,237	\$43,811
16	\$4,655	\$6,983	\$11,172	\$13,562	\$7,920	\$5,237	\$949	\$13,093	\$4,364	\$45,126
17	\$4,795	\$7,192	\$11,508	\$13,969	\$8,158	\$5,394	\$978	\$13,486	\$4,495	\$46,479
18	\$4,939	\$7,408	\$11,853	\$14,388	\$8,402	\$5,556	\$1,007	\$13,890	\$4,630	\$47,874
19	\$5,087	\$7,630	\$12,208	\$14,820	\$8,654	\$5,723	\$1,037	\$14,307	\$4,769	\$49,310
20	\$5,239	\$7,859	\$12,575	\$15,265	\$8,914	\$5,894	\$1,068	\$14,736	\$4,912	\$50,789
21	\$5,397	\$8,095	\$12,952	\$15,722	\$9,181	\$6,071	\$1,101	\$15,178	\$5,059	\$52,313
22	\$5,559	\$8,338	\$13,341	\$16,194	\$9,457	\$6,253	\$1,134	\$15,633	\$5,211	\$53,882
23	\$5,725	\$8,588	\$13,741	\$16,680	\$9,740	\$6,441	\$1,168	\$16,102	\$5,367	\$55,499
24	\$5,897	\$8,846	\$14,153	\$17,180	\$10,033	\$6,634	\$1,203	\$16,586	\$5,529	\$57,164
25	\$6,074	\$9,111	\$14,578	\$17,696	\$10,334	\$6,833	\$1,239	\$17,083	\$5,694	\$58,879
26	\$6,256	\$9,384	\$15,015	\$18,227	\$10,644	\$7,038	\$1,276	\$17,596	\$5,865	\$60,645
27	\$6,444	\$9,666	\$15,465	\$18,773	\$10,963	\$7,249	\$1,314	\$18,123	\$6,041	\$62,465
28	\$6,637	\$9,956	\$15,929	\$19,337	\$11,292	\$7,467	\$1,353	\$18,667	\$6,222	\$64,338
29	\$6,836	\$10,254	\$16,407	\$19,917	\$11,631	\$7,691	\$1,394	\$19,227	\$6,409	\$66,269
30	\$7,041	\$10,562	\$16,899	\$20,514	\$11,980	\$7,922	\$1,436	\$19,804	\$6,601	\$68,257
31	\$7,253	\$10,879	\$17,406	\$21,130	\$12,339	\$8,159	\$1,479	\$20,398	\$6,799	\$70,304
32	\$7,470	\$11,205	\$17,929	\$21,764	\$12,709	\$8,404	\$1,523	\$21,010	\$7,003	\$72,414
33	\$7,694	\$11,542	\$18,466	\$22,417	\$13,090	\$8,656	\$1,569	\$21,640	\$7,213	\$74,586
34	\$7,925	\$11,888	\$19,020	\$23,089	\$13,483	\$8,916	\$1,616	\$22,290	\$7,430	\$76,824
35	\$8,163	\$12,244	\$19,591	\$23,782	\$13,888	\$9,183	\$1,665	\$22,958	\$7,653	\$79,128
36	\$8,408	\$12,612	\$20,179	\$24,495	\$14,304	\$9,459	\$1,715	\$23,647	\$7,882	\$81,502
37	\$8,660	\$12,990	\$20,784	\$25,230	\$14,733	\$9,743	\$1,766	\$24,356	\$8,119	\$83,947
38	\$8,920	\$13,380	\$21,408	\$25,987	\$15,175	\$10,035	\$1,819	\$25,087	\$8,362	\$86,466
39	\$9,187	\$13,781	\$22,050	\$26,766	\$15,631	\$10,336	\$1,874	\$25,840	\$8,613	\$89,059
40	\$9,463	\$14,195	\$22,711	\$27,569	\$16,100	\$10,646	\$1,930	\$26,615	\$8,872	\$91,731

HUC 12 # 102702070606 Annual Cost* After Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$299	\$896	\$3,586	\$1,741	\$2,542	\$1,681	\$609	\$4,202	\$1,401	\$12,175
2	\$308	\$923	\$3,693	\$1,793	\$2,618	\$1,731	\$628	\$4,328	\$1,443	\$12,541
3	\$317	\$951	\$3,804	\$1,847	\$2,697	\$1,783	\$646	\$4,458	\$1,486	\$12,917
4	\$327	\$980	\$3,918	\$1,902	\$2,777	\$1,837	\$666	\$4,592	\$1,531	\$13,304
5	\$336	\$1,009	\$4,036	\$1,960	\$2,861	\$1,892	\$686	\$4,729	\$1,576	\$13,703
6	\$346	\$1,039	\$4,157	\$2,018	\$2,947	\$1,948	\$706	\$4,871	\$1,624	\$14,115
7	\$357	\$1,070	\$4,281	\$2,079	\$3,035	\$2,007	\$728	\$5,017	\$1,672	\$14,538
8	\$367	\$1,102	\$4,410	\$2,141	\$3,126	\$2,067	\$749	\$5,168	\$1,723	\$14,974
9	\$379	\$1,136	\$4,542	\$2,205	\$3,220	\$2,129	\$772	\$5,323	\$1,774	\$15,423
10	\$390	\$1,170	\$4,678	\$2,272	\$3,316	\$2,193	\$795	\$5,482	\$1,827	\$15,886
11	\$402	\$1,205	\$4,819	\$2,340	\$3,416	\$2,259	\$819	\$5,647	\$1,882	\$16,363
12	\$414	\$1,241	\$4,963	\$2,410	\$3,518	\$2,327	\$843	\$5,816	\$1,939	\$16,854
13	\$426	\$1,278	\$5,112	\$2,482	\$3,624	\$2,396	\$869	\$5,991	\$1,997	\$17,359
14	\$439	\$1,316	\$5,266	\$2,557	\$3,733	\$2,468	\$895	\$6,171	\$2,057	\$17,880
15	\$452	\$1,356	\$5,424	\$2,633	\$3,845	\$2,542	\$922	\$6,356	\$2,119	\$18,416
16	\$466	\$1,397	\$5,586	\$2,712	\$3,960	\$2,619	\$949	\$6,546	\$2,182	\$18,969
17	\$479	\$1,438	\$5,754	\$2,794	\$4,079	\$2,697	\$978	\$6,743	\$2,248	\$19,538
18	\$494	\$1,482	\$5,926	\$2,878	\$4,201	\$2,778	\$1,007	\$6,945	\$2,315	\$20,124
19	\$509	\$1,526	\$6,104	\$2,964	\$4,327	\$2,861	\$1,037	\$7,153	\$2,384	\$20,728
20	\$524	\$1,572	\$6,287	\$3,053	\$4,457	\$2,947	\$1,068	\$7,368	\$2,456	\$21,350
21	\$540	\$1,619	\$6,476	\$3,144	\$4,591	\$3,036	\$1,101	\$7,589	\$2,530	\$21,990
22	\$556	\$1,668	\$6,670	\$3,239	\$4,728	\$3,127	\$1,134	\$7,817	\$2,606	\$22,650
23	\$573	\$1,718	\$6,870	\$3,336	\$4,870	\$3,220	\$1,168	\$8,051	\$2,684	\$23,329
24	\$590	\$1,769	\$7,076	\$3,436	\$5,016	\$3,317	\$1,203	\$8,293	\$2,764	\$24,029
25	\$607	\$1,822	\$7,289	\$3,539	\$5,167	\$3,417	\$1,239	\$8,542	\$2,847	\$24,750
26	\$626	\$1,877	\$7,507	\$3,645	\$5,322	\$3,519	\$1,276	\$8,798	\$2,933	\$25,492
27	\$644	\$1,933	\$7,733	\$3,755	\$5,481	\$3,625	\$1,314	\$9,062	\$3,021	\$26,257
28	\$664	\$1,991	\$7,965	\$3,867	\$5,646	\$3,733	\$1,353	\$9,334	\$3,111	\$27,045
29	\$684	\$2,051	\$8,204	\$3,983	\$5,815	\$3,845	\$1,394	\$9,614	\$3,205	\$27,856
30	\$704	\$2,112	\$8,450	\$4,103	\$5,990	\$3,961	\$1,436	\$9,902	\$3,301	\$28,692
31	\$725	\$2,176	\$8,703	\$4,226	\$6,169	\$4,080	\$1,479	\$10,199	\$3,400	\$29,553
32	\$747	\$2,241	\$8,964	\$4,353	\$6,355	\$4,202	\$1,523	\$10,505	\$3,502	\$30,439
33	\$769	\$2,308	\$9,233	\$4,483	\$6,545	\$4,328	\$1,569	\$10,820	\$3,607	\$31,353
34	\$793	\$2,378	\$9,510	\$4,618	\$6,742	\$4,458	\$1,616	\$11,145	\$3,715	\$32,293
35	\$816	\$2,449	\$9,796	\$4,756	\$6,944	\$4,592	\$1,665	\$11,479	\$3,826	\$33,262
36	\$841	\$2,522	\$10,089	\$4,899	\$7,152	\$4,729	\$1,715	\$11,823	\$3,941	\$34,260
37	\$866	\$2,598	\$10,392	\$5,046	\$7,367	\$4,871	\$1,766	\$12,178	\$4,059	\$35,288
38	\$892	\$2,676	\$10,704	\$5,197	\$7,588	\$5,017	\$1,819	\$12,544	\$4,181	\$36,346
39	\$919	\$2,756	\$11,025	\$5,353	\$7,815	\$5,168	\$1,874	\$12,920	\$4,307	\$37,437
40	\$946	\$2,839	\$11,356	\$5,514	\$8,050	\$5,323	\$1,930	\$13,307	\$4,436	\$38,560

b. Big Blue Targeted Areas

HUC 12 # 102702050201 Annual Cost* Before Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$3,146	\$4,719	\$7,550	\$9,165	\$5,352	\$3,539	\$642	\$8,848	\$2,949	\$30,494
2	\$3,240	\$4,860	\$7,777	\$9,440	\$5,513	\$3,645	\$661	\$9,113	\$3,038	\$31,409
3	\$3,337	\$5,006	\$8,010	\$9,723	\$5,678	\$3,755	\$681	\$9,386	\$3,129	\$32,352
4	\$3,438	\$5,156	\$8,250	\$10,015	\$5,848	\$3,867	\$701	\$9,668	\$3,223	\$33,322
5	\$3,541	\$5,311	\$8,498	\$10,315	\$6,024	\$3,983	\$722	\$9,958	\$3,319	\$34,322
6	\$3,647	\$5,470	\$8,753	\$10,625	\$6,204	\$4,103	\$744	\$10,257	\$3,419	\$35,351
7	\$3,756	\$5,634	\$9,015	\$10,943	\$6,391	\$4,226	\$766	\$10,565	\$3,522	\$36,412
8	\$3,869	\$5,803	\$9,286	\$11,272	\$6,582	\$4,353	\$789	\$10,882	\$3,627	\$37,504
9	\$3,985	\$5,978	\$9,564	\$11,610	\$6,780	\$4,483	\$813	\$11,208	\$3,736	\$38,629
10	\$4,105	\$6,157	\$9,851	\$11,958	\$6,983	\$4,618	\$837	\$11,544	\$3,848	\$39,788
11	\$4,228	\$6,342	\$10,147	\$12,317	\$7,193	\$4,756	\$862	\$11,891	\$3,964	\$40,982
12	\$4,355	\$6,532	\$10,451	\$12,686	\$7,408	\$4,899	\$888	\$12,247	\$4,082	\$42,211
13	\$4,485	\$6,728	\$10,764	\$13,067	\$7,631	\$5,046	\$915	\$12,615	\$4,205	\$43,478
14	\$4,620	\$6,930	\$11,087	\$13,459	\$7,860	\$5,197	\$942	\$12,993	\$4,331	\$44,782
15	\$4,758	\$7,138	\$11,420	\$13,863	\$8,095	\$5,353	\$970	\$13,383	\$4,461	\$46,126
16	\$4,901	\$7,352	\$11,763	\$14,279	\$8,338	\$5,514	\$999	\$13,784	\$4,595	\$47,509
17	\$5,048	\$7,572	\$12,116	\$14,707	\$8,588	\$5,679	\$1,029	\$14,198	\$4,733	\$48,935
18	\$5,200	\$7,799	\$12,479	\$15,148	\$8,846	\$5,850	\$1,060	\$14,624	\$4,875	\$50,403
19	\$5,356	\$8,033	\$12,853	\$15,603	\$9,111	\$6,025	\$1,092	\$15,063	\$5,021	\$51,915
20	\$5,516	\$8,274	\$13,239	\$16,071	\$9,385	\$6,206	\$1,125	\$15,514	\$5,171	\$53,472
21	\$5,682	\$8,523	\$13,636	\$16,553	\$9,666	\$6,392	\$1,159	\$15,980	\$5,327	\$55,076
22	\$5,852	\$8,778	\$14,045	\$17,050	\$9,956	\$6,584	\$1,193	\$16,459	\$5,486	\$56,729
23	\$6,028	\$9,042	\$14,467	\$17,561	\$10,255	\$6,781	\$1,229	\$16,953	\$5,651	\$58,431
24	\$6,209	\$9,313	\$14,901	\$18,088	\$10,563	\$6,985	\$1,266	\$17,462	\$5,821	\$60,183
25	\$6,395	\$9,592	\$15,348	\$18,631	\$10,880	\$7,194	\$1,304	\$17,985	\$5,995	\$61,989
26	\$6,587	\$9,880	\$15,808	\$19,189	\$11,206	\$7,410	\$1,343	\$18,525	\$6,175	\$63,849
27	\$6,784	\$10,176	\$16,282	\$19,765	\$11,542	\$7,632	\$1,383	\$19,081	\$6,360	\$65,764
28	\$6,988	\$10,482	\$16,771	\$20,358	\$11,888	\$7,861	\$1,425	\$19,653	\$6,551	\$67,737
29	\$7,197	\$10,796	\$17,274	\$20,969	\$12,245	\$8,097	\$1,468	\$20,243	\$6,748	\$69,769
30	\$7,413	\$11,120	\$17,792	\$21,598	\$12,612	\$8,340	\$1,512	\$20,850	\$6,950	\$71,862
31	\$7,636	\$11,454	\$18,326	\$22,246	\$12,991	\$8,590	\$1,557	\$21,476	\$7,159	\$74,018
32	\$7,865	\$11,797	\$18,876	\$22,913	\$13,380	\$8,848	\$1,604	\$22,120	\$7,373	\$76,239
33	\$8,101	\$12,151	\$19,442	\$23,601	\$13,782	\$9,113	\$1,652	\$22,783	\$7,594	\$78,526
34	\$8,344	\$12,516	\$20,025	\$24,309	\$14,195	\$9,387	\$1,702	\$23,467	\$7,822	\$80,882
35	\$8,594	\$12,891	\$20,626	\$25,038	\$14,621	\$9,668	\$1,753	\$24,171	\$8,057	\$83,308
36	\$8,852	\$13,278	\$21,245	\$25,789	\$15,060	\$9,958	\$1,805	\$24,896	\$8,299	\$85,807
37	\$9,118	\$13,676	\$21,882	\$26,563	\$15,512	\$10,257	\$1,859	\$25,643	\$8,548	\$88,381
38	\$9,391	\$14,087	\$22,538	\$27,360	\$15,977	\$10,565	\$1,915	\$26,412	\$8,804	\$91,033
39	\$9,673	\$14,509	\$23,215	\$28,180	\$16,456	\$10,882	\$1,973	\$27,205	\$9,068	\$93,764
40	\$9,963	\$14,944	\$23,911	\$29,026	\$16,950	\$11,208	\$2,032	\$28,021	\$9,340	\$96,577

HUC 12 # 102702050201 Annual Cost* After Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$315	\$944	\$3,775	\$1,833	\$2,676	\$1,770	\$642	\$4,424	\$1,475	\$12,818
2	\$324	\$972	\$3,888	\$1,888	\$2,756	\$1,823	\$661	\$4,557	\$1,519	\$13,203
3	\$334	\$1,001	\$4,005	\$1,945	\$2,839	\$1,877	\$681	\$4,693	\$1,564	\$13,599
4	\$344	\$1,031	\$4,125	\$2,003	\$2,924	\$1,934	\$701	\$4,834	\$1,611	\$14,007
5	\$354	\$1,062	\$4,249	\$2,063	\$3,012	\$1,992	\$722	\$4,979	\$1,660	\$14,427
6	\$365	\$1,094	\$4,376	\$2,125	\$3,102	\$2,051	\$744	\$5,128	\$1,709	\$14,860
7	\$376	\$1,127	\$4,508	\$2,189	\$3,195	\$2,113	\$766	\$5,282	\$1,761	\$15,306
8	\$387	\$1,161	\$4,643	\$2,254	\$3,291	\$2,176	\$789	\$5,441	\$1,814	\$15,765
9	\$399	\$1,196	\$4,782	\$2,322	\$3,390	\$2,242	\$813	\$5,604	\$1,868	\$16,238
10	\$410	\$1,231	\$4,926	\$2,392	\$3,492	\$2,309	\$837	\$5,772	\$1,924	\$16,725
11	\$423	\$1,268	\$5,073	\$2,463	\$3,596	\$2,378	\$862	\$5,945	\$1,982	\$17,227
12	\$435	\$1,306	\$5,225	\$2,537	\$3,704	\$2,449	\$888	\$6,124	\$2,041	\$17,744
13	\$449	\$1,346	\$5,382	\$2,613	\$3,815	\$2,523	\$915	\$6,307	\$2,102	\$18,276
14	\$462	\$1,386	\$5,544	\$2,692	\$3,930	\$2,599	\$942	\$6,497	\$2,166	\$18,824
15	\$476	\$1,428	\$5,710	\$2,773	\$4,048	\$2,677	\$970	\$6,691	\$2,230	\$19,389
16	\$490	\$1,470	\$5,881	\$2,856	\$4,169	\$2,757	\$999	\$6,892	\$2,297	\$19,971
17	\$505	\$1,514	\$6,058	\$2,941	\$4,294	\$2,840	\$1,029	\$7,099	\$2,366	\$20,570
18	\$520	\$1,560	\$6,239	\$3,030	\$4,423	\$2,925	\$1,060	\$7,312	\$2,437	\$21,187
19	\$536	\$1,607	\$6,427	\$3,121	\$4,556	\$3,013	\$1,092	\$7,531	\$2,510	\$21,823
20	\$552	\$1,655	\$6,619	\$3,214	\$4,692	\$3,103	\$1,125	\$7,757	\$2,586	\$22,477
21	\$568	\$1,705	\$6,818	\$3,311	\$4,833	\$3,196	\$1,159	\$7,990	\$2,663	\$23,152
22	\$585	\$1,756	\$7,023	\$3,410	\$4,978	\$3,292	\$1,193	\$8,230	\$2,743	\$23,846
23	\$603	\$1,808	\$7,233	\$3,512	\$5,127	\$3,391	\$1,229	\$8,477	\$2,826	\$24,562
24	\$621	\$1,863	\$7,450	\$3,618	\$5,281	\$3,492	\$1,266	\$8,731	\$2,910	\$25,298
25	\$639	\$1,918	\$7,674	\$3,726	\$5,440	\$3,597	\$1,304	\$8,993	\$2,998	\$26,057
26	\$659	\$1,976	\$7,904	\$3,838	\$5,603	\$3,705	\$1,343	\$9,263	\$3,088	\$26,839
27	\$678	\$2,035	\$8,141	\$3,953	\$5,771	\$3,816	\$1,383	\$9,540	\$3,180	\$27,644
28	\$699	\$2,096	\$8,385	\$4,072	\$5,944	\$3,931	\$1,425	\$9,827	\$3,276	\$28,474
29	\$720	\$2,159	\$8,637	\$4,194	\$6,123	\$4,049	\$1,468	\$10,121	\$3,374	\$29,328
30	\$741	\$2,224	\$8,896	\$4,320	\$6,306	\$4,170	\$1,512	\$10,425	\$3,475	\$30,208
31	\$764	\$2,291	\$9,163	\$4,449	\$6,495	\$4,295	\$1,557	\$10,738	\$3,579	\$31,114
32	\$786	\$2,359	\$9,438	\$4,583	\$6,690	\$4,424	\$1,604	\$11,060	\$3,687	\$32,047
33	\$810	\$2,430	\$9,721	\$4,720	\$6,891	\$4,557	\$1,652	\$11,392	\$3,797	\$33,009
34	\$834	\$2,503	\$10,013	\$4,862	\$7,098	\$4,693	\$1,702	\$11,733	\$3,911	\$33,999
35	\$859	\$2,578	\$10,313	\$5,008	\$7,311	\$4,834	\$1,753	\$12,085	\$4,028	\$35,019
36	\$885	\$2,656	\$10,622	\$5,158	\$7,530	\$4,979	\$1,805	\$12,448	\$4,149	\$36,069
37	\$912	\$2,735	\$10,941	\$5,313	\$7,756	\$5,129	\$1,859	\$12,821	\$4,274	\$37,152
38	\$939	\$2,817	\$11,269	\$5,472	\$7,988	\$5,282	\$1,915	\$13,206	\$4,402	\$38,266
39	\$967	\$2,902	\$11,607	\$5,636	\$8,228	\$5,441	\$1,973	\$13,602	\$4,534	\$39,414
40	\$996	\$2,989	\$11,956	\$5,805	\$8,475	\$5,604	\$2,032	\$14,010	\$4,670	\$40,596

HUC 12 # 102702050204 Annual Cost* Before Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$2,903	\$4,355	\$6,967	\$8,458	\$4,939	\$3,266	\$592	\$8,165	\$2,722	\$28,141
2	\$2,990	\$4,485	\$7,176	\$8,711	\$5,087	\$3,364	\$610	\$8,410	\$2,803	\$28,985
3	\$3,080	\$4,620	\$7,392	\$8,973	\$5,240	\$3,465	\$628	\$8,662	\$2,887	\$29,854
4	\$3,172	\$4,758	\$7,613	\$9,242	\$5,397	\$3,569	\$647	\$8,922	\$2,974	\$30,750
5	\$3,267	\$4,901	\$7,842	\$9,519	\$5,559	\$3,676	\$666	\$9,189	\$3,063	\$31,672
6	\$3,365	\$5,048	\$8,077	\$9,805	\$5,726	\$3,786	\$686	\$9,465	\$3,155	\$32,623
7	\$3,466	\$5,200	\$8,319	\$10,099	\$5,897	\$3,900	\$707	\$9,749	\$3,250	\$33,601
8	\$3,570	\$5,355	\$8,569	\$10,402	\$6,074	\$4,017	\$728	\$10,042	\$3,347	\$34,609
9	\$3,677	\$5,516	\$8,826	\$10,714	\$6,256	\$4,137	\$750	\$10,343	\$3,448	\$35,648
10	\$3,788	\$5,682	\$9,091	\$11,035	\$6,444	\$4,261	\$772	\$10,653	\$3,551	\$36,717
11	\$3,901	\$5,852	\$9,363	\$11,366	\$6,637	\$4,389	\$796	\$10,973	\$3,658	\$37,819
12	\$4,018	\$6,028	\$9,644	\$11,707	\$6,837	\$4,521	\$819	\$11,302	\$3,767	\$38,953
13	\$4,139	\$6,208	\$9,934	\$12,058	\$7,042	\$4,656	\$844	\$11,641	\$3,880	\$40,122
14	\$4,263	\$6,395	\$10,232	\$12,420	\$7,253	\$4,796	\$869	\$11,990	\$3,997	\$41,325
15	\$4,391	\$6,587	\$10,539	\$12,793	\$7,470	\$4,940	\$895	\$12,350	\$4,117	\$42,565
16	\$4,523	\$6,784	\$10,855	\$13,177	\$7,695	\$5,088	\$922	\$12,720	\$4,240	\$43,842
17	\$4,658	\$6,988	\$11,180	\$13,572	\$7,925	\$5,241	\$950	\$13,102	\$4,367	\$45,157
18	\$4,798	\$7,197	\$11,516	\$13,979	\$8,163	\$5,398	\$978	\$13,495	\$4,498	\$46,512
19	\$4,942	\$7,413	\$11,861	\$14,398	\$8,408	\$5,560	\$1,008	\$13,900	\$4,633	\$47,907
20	\$5,090	\$7,636	\$12,217	\$14,830	\$8,660	\$5,727	\$1,038	\$14,317	\$4,772	\$49,345
21	\$5,243	\$7,865	\$12,584	\$15,275	\$8,920	\$5,899	\$1,069	\$14,746	\$4,915	\$50,825
22	\$5,400	\$8,101	\$12,961	\$15,733	\$9,188	\$6,075	\$1,101	\$15,189	\$5,063	\$52,350
23	\$5,562	\$8,344	\$13,350	\$16,205	\$9,463	\$6,258	\$1,134	\$15,644	\$5,215	\$53,920
24	\$5,729	\$8,594	\$13,750	\$16,692	\$9,747	\$6,445	\$1,168	\$16,114	\$5,371	\$55,538
25	\$5,901	\$8,852	\$14,163	\$17,192	\$10,040	\$6,639	\$1,203	\$16,597	\$5,532	\$57,204
26	\$6,078	\$9,117	\$14,588	\$17,708	\$10,341	\$6,838	\$1,240	\$17,095	\$5,698	\$58,920
27	\$6,261	\$9,391	\$15,025	\$18,239	\$10,651	\$7,043	\$1,277	\$17,608	\$5,869	\$60,688
28	\$6,448	\$9,673	\$15,476	\$18,787	\$10,971	\$7,254	\$1,315	\$18,136	\$6,045	\$62,508
29	\$6,642	\$9,963	\$15,940	\$19,350	\$11,300	\$7,472	\$1,354	\$18,680	\$6,227	\$64,383
30	\$6,841	\$10,262	\$16,419	\$19,931	\$11,639	\$7,696	\$1,395	\$19,241	\$6,414	\$66,315
31	\$7,046	\$10,570	\$16,911	\$20,529	\$11,988	\$7,927	\$1,437	\$19,818	\$6,606	\$68,304
32	\$7,258	\$10,887	\$17,419	\$21,144	\$12,348	\$8,165	\$1,480	\$20,412	\$6,804	\$70,354
33	\$7,475	\$11,213	\$17,941	\$21,779	\$12,718	\$8,410	\$1,524	\$21,025	\$7,008	\$72,464
34	\$7,700	\$11,550	\$18,479	\$22,432	\$13,100	\$8,662	\$1,570	\$21,655	\$7,218	\$74,638
35	\$7,931	\$11,896	\$19,034	\$23,105	\$13,493	\$8,922	\$1,617	\$22,305	\$7,435	\$76,877
36	\$8,169	\$12,253	\$19,605	\$23,798	\$13,897	\$9,190	\$1,666	\$22,974	\$7,658	\$79,184
37	\$8,414	\$12,621	\$20,193	\$24,512	\$14,314	\$9,465	\$1,716	\$23,664	\$7,888	\$81,559
38	\$8,666	\$12,999	\$20,799	\$25,248	\$14,744	\$9,749	\$1,767	\$24,373	\$8,124	\$84,006
39	\$8,926	\$13,389	\$21,423	\$26,005	\$15,186	\$10,042	\$1,820	\$25,105	\$8,368	\$86,526
40	\$9,194	\$13,791	\$22,065	\$26,785	\$15,642	\$10,343	\$1,875	\$25,858	\$8,619	\$89,122

HUC 12 # 102702050204 Annual Cost* After Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$290	\$871	\$3,484	\$1,692	\$2,469	\$1,633	\$592	\$4,082	\$1,361	\$11,829
2	\$299	\$897	\$3,588	\$1,742	\$2,544	\$1,682	\$610	\$4,205	\$1,402	\$12,184
3	\$308	\$924	\$3,696	\$1,795	\$2,620	\$1,732	\$628	\$4,331	\$1,444	\$12,549
4	\$317	\$952	\$3,807	\$1,848	\$2,698	\$1,784	\$647	\$4,461	\$1,487	\$12,926
5	\$327	\$980	\$3,921	\$1,904	\$2,779	\$1,838	\$666	\$4,595	\$1,532	\$13,314
6	\$337	\$1,010	\$4,038	\$1,961	\$2,863	\$1,893	\$686	\$4,733	\$1,578	\$13,713
7	\$347	\$1,040	\$4,160	\$2,020	\$2,949	\$1,950	\$707	\$4,875	\$1,625	\$14,124
8	\$357	\$1,071	\$4,284	\$2,080	\$3,037	\$2,008	\$728	\$5,021	\$1,674	\$14,548
9	\$368	\$1,103	\$4,413	\$2,143	\$3,128	\$2,069	\$750	\$5,171	\$1,724	\$14,985
10	\$379	\$1,136	\$4,545	\$2,207	\$3,222	\$2,131	\$772	\$5,327	\$1,776	\$15,434
11	\$390	\$1,170	\$4,682	\$2,273	\$3,319	\$2,195	\$796	\$5,486	\$1,829	\$15,897
12	\$402	\$1,206	\$4,822	\$2,341	\$3,418	\$2,260	\$819	\$5,651	\$1,884	\$16,374
13	\$414	\$1,242	\$4,967	\$2,412	\$3,521	\$2,328	\$844	\$5,820	\$1,940	\$16,865
14	\$426	\$1,279	\$5,116	\$2,484	\$3,626	\$2,398	\$869	\$5,995	\$1,998	\$17,371
15	\$439	\$1,317	\$5,269	\$2,559	\$3,735	\$2,470	\$895	\$6,175	\$2,058	\$17,892
16	\$452	\$1,357	\$5,427	\$2,635	\$3,847	\$2,544	\$922	\$6,360	\$2,120	\$18,429
17	\$466	\$1,398	\$5,590	\$2,714	\$3,963	\$2,620	\$950	\$6,551	\$2,184	\$18,982
18	\$480	\$1,439	\$5,758	\$2,796	\$4,082	\$2,699	\$978	\$6,747	\$2,249	\$19,552
19	\$494	\$1,483	\$5,931	\$2,880	\$4,204	\$2,780	\$1,008	\$6,950	\$2,317	\$20,138
20	\$509	\$1,527	\$6,109	\$2,966	\$4,330	\$2,863	\$1,038	\$7,158	\$2,386	\$20,742
21	\$524	\$1,573	\$6,292	\$3,055	\$4,460	\$2,949	\$1,069	\$7,373	\$2,458	\$21,364
22	\$540	\$1,620	\$6,481	\$3,147	\$4,594	\$3,038	\$1,101	\$7,594	\$2,531	\$22,005
23	\$556	\$1,669	\$6,675	\$3,241	\$4,732	\$3,129	\$1,134	\$7,822	\$2,607	\$22,666
24	\$573	\$1,719	\$6,875	\$3,338	\$4,874	\$3,223	\$1,168	\$8,057	\$2,686	\$23,346
25	\$590	\$1,770	\$7,081	\$3,438	\$5,020	\$3,319	\$1,203	\$8,299	\$2,766	\$24,046
26	\$608	\$1,823	\$7,294	\$3,542	\$5,170	\$3,419	\$1,240	\$8,548	\$2,849	\$24,767
27	\$626	\$1,878	\$7,513	\$3,648	\$5,326	\$3,522	\$1,277	\$8,804	\$2,935	\$25,510
28	\$645	\$1,935	\$7,738	\$3,757	\$5,485	\$3,627	\$1,315	\$9,068	\$3,023	\$26,276
29	\$664	\$1,993	\$7,970	\$3,870	\$5,650	\$3,736	\$1,354	\$9,340	\$3,113	\$27,064
30	\$684	\$2,052	\$8,209	\$3,986	\$5,819	\$3,848	\$1,395	\$9,620	\$3,207	\$27,876
31	\$705	\$2,114	\$8,456	\$4,106	\$5,994	\$3,964	\$1,437	\$9,909	\$3,303	\$28,712
32	\$726	\$2,177	\$8,709	\$4,229	\$6,174	\$4,082	\$1,480	\$10,206	\$3,402	\$29,573
33	\$748	\$2,243	\$8,971	\$4,356	\$6,359	\$4,205	\$1,524	\$10,512	\$3,504	\$30,461
34	\$770	\$2,310	\$9,240	\$4,486	\$6,550	\$4,331	\$1,570	\$10,828	\$3,609	\$31,374
35	\$793	\$2,379	\$9,517	\$4,621	\$6,746	\$4,461	\$1,617	\$11,153	\$3,718	\$32,316
36	\$817	\$2,451	\$9,802	\$4,760	\$6,949	\$4,595	\$1,666	\$11,487	\$3,829	\$33,285
37	\$841	\$2,524	\$10,096	\$4,902	\$7,157	\$4,733	\$1,716	\$11,832	\$3,944	\$34,284
38	\$867	\$2,600	\$10,399	\$5,050	\$7,372	\$4,875	\$1,767	\$12,187	\$4,062	\$35,312
39	\$893	\$2,678	\$10,711	\$5,201	\$7,593	\$5,021	\$1,820	\$12,552	\$4,184	\$36,372
40	\$919	\$2,758	\$11,033	\$5,357	\$7,821	\$5,172	\$1,875	\$12,929	\$4,310	\$37,463

HUC 12 # 102702050301 Annual Cost* Before Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$4,928	\$7,392	\$11,827	\$14,357	\$8,384	\$5,544	\$1,005	\$13,860	\$4,620	\$47,768
2	\$5,076	\$7,614	\$12,182	\$14,787	\$8,635	\$5,710	\$1,035	\$14,275	\$4,758	\$49,201
3	\$5,228	\$7,842	\$12,547	\$15,231	\$8,894	\$5,881	\$1,066	\$14,704	\$4,901	\$50,678
4	\$5,385	\$8,077	\$12,923	\$15,688	\$9,161	\$6,058	\$1,098	\$15,145	\$5,048	\$52,198
5	\$5,546	\$8,319	\$13,311	\$16,159	\$9,436	\$6,240	\$1,131	\$15,599	\$5,200	\$53,764
6	\$5,713	\$8,569	\$13,711	\$16,643	\$9,719	\$6,427	\$1,165	\$16,067	\$5,356	\$55,377
7	\$5,884	\$8,826	\$14,122	\$17,143	\$10,011	\$6,620	\$1,200	\$16,549	\$5,516	\$57,038
8	\$6,061	\$9,091	\$14,545	\$17,657	\$10,311	\$6,818	\$1,236	\$17,045	\$5,682	\$58,749
9	\$6,242	\$9,364	\$14,982	\$18,187	\$10,620	\$7,023	\$1,273	\$17,557	\$5,852	\$60,512
10	\$6,430	\$9,645	\$15,431	\$18,732	\$10,939	\$7,233	\$1,311	\$18,084	\$6,028	\$62,327
11	\$6,623	\$9,934	\$15,894	\$19,294	\$11,267	\$7,450	\$1,351	\$18,626	\$6,209	\$64,197
12	\$6,821	\$10,232	\$16,371	\$19,873	\$11,605	\$7,674	\$1,391	\$19,185	\$6,395	\$66,123
13	\$7,026	\$10,539	\$16,862	\$20,469	\$11,953	\$7,904	\$1,433	\$19,760	\$6,587	\$68,106
14	\$7,237	\$10,855	\$17,368	\$21,083	\$12,312	\$8,141	\$1,476	\$20,353	\$6,784	\$70,150
15	\$7,454	\$11,181	\$17,889	\$21,716	\$12,681	\$8,386	\$1,520	\$20,964	\$6,988	\$72,254
16	\$7,677	\$11,516	\$18,426	\$22,367	\$13,062	\$8,637	\$1,566	\$21,593	\$7,198	\$74,422
17	\$7,908	\$11,862	\$18,979	\$23,038	\$13,453	\$8,896	\$1,613	\$22,240	\$7,413	\$76,654
18	\$8,145	\$12,217	\$19,548	\$23,729	\$13,857	\$9,163	\$1,661	\$22,908	\$7,636	\$78,954
19	\$8,389	\$12,584	\$20,134	\$24,441	\$14,273	\$9,438	\$1,711	\$23,595	\$7,865	\$81,323
20	\$8,641	\$12,961	\$20,738	\$25,174	\$14,701	\$9,721	\$1,762	\$24,303	\$8,101	\$83,762
21	\$8,900	\$13,350	\$21,361	\$25,930	\$15,142	\$10,013	\$1,815	\$25,032	\$8,344	\$86,275
22	\$9,167	\$13,751	\$22,001	\$26,708	\$15,596	\$10,313	\$1,869	\$25,783	\$8,594	\$88,863
23	\$9,442	\$14,163	\$22,661	\$27,509	\$16,064	\$10,623	\$1,926	\$26,556	\$8,852	\$91,529
24	\$9,726	\$14,588	\$23,341	\$28,334	\$16,546	\$10,941	\$1,983	\$27,353	\$9,118	\$94,275
25	\$10,017	\$15,026	\$24,041	\$29,184	\$17,042	\$11,269	\$2,043	\$28,174	\$9,391	\$97,103
26	\$10,318	\$15,477	\$24,763	\$30,060	\$17,554	\$11,608	\$2,104	\$29,019	\$9,673	\$100,017
27	\$10,627	\$15,941	\$25,506	\$30,961	\$18,080	\$11,956	\$2,167	\$29,889	\$9,963	\$103,017
28	\$10,946	\$16,419	\$26,271	\$31,890	\$18,623	\$12,314	\$2,232	\$30,786	\$10,262	\$106,108
29	\$11,275	\$16,912	\$27,059	\$32,847	\$19,181	\$12,684	\$2,299	\$31,710	\$10,570	\$109,291
30	\$11,613	\$17,419	\$27,871	\$33,832	\$19,757	\$13,064	\$2,368	\$32,661	\$10,887	\$112,569
31	\$11,961	\$17,942	\$28,707	\$34,847	\$20,349	\$13,456	\$2,439	\$33,641	\$11,214	\$115,947
32	\$12,320	\$18,480	\$29,568	\$35,893	\$20,960	\$13,860	\$2,512	\$34,650	\$11,550	\$119,425
33	\$12,690	\$19,034	\$30,455	\$36,970	\$21,589	\$14,276	\$2,588	\$35,689	\$11,896	\$123,008
34	\$13,070	\$19,605	\$31,369	\$38,079	\$22,236	\$14,704	\$2,665	\$36,760	\$12,253	\$126,698
35	\$13,462	\$20,194	\$32,310	\$39,221	\$22,904	\$15,145	\$2,745	\$37,863	\$12,621	\$130,499
36	\$13,866	\$20,799	\$33,279	\$40,398	\$23,591	\$15,600	\$2,828	\$38,999	\$13,000	\$134,414
37	\$14,282	\$21,423	\$34,277	\$41,609	\$24,298	\$16,068	\$2,913	\$40,169	\$13,390	\$138,446
38	\$14,711	\$22,066	\$35,306	\$42,858	\$25,027	\$16,550	\$3,000	\$41,374	\$13,791	\$142,600
39	\$15,152	\$22,728	\$36,365	\$44,144	\$25,778	\$17,046	\$3,090	\$42,615	\$14,205	\$146,878
40	\$15,607	\$23,410	\$37,456	\$45,468	\$26,551	\$17,557	\$3,183	\$43,894	\$14,631	\$151,284

HUC 12 # 102702050301 Annual Cost* After Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$493	\$1,478	\$5,913	\$2,871	\$4,192	\$2,772	\$1,005	\$6,930	\$2,310	\$20,080
2	\$508	\$1,523	\$6,091	\$2,957	\$4,318	\$2,855	\$1,035	\$7,138	\$2,379	\$20,682
3	\$523	\$1,568	\$6,274	\$3,046	\$4,447	\$2,941	\$1,066	\$7,352	\$2,451	\$21,303
4	\$538	\$1,615	\$6,462	\$3,138	\$4,581	\$3,029	\$1,098	\$7,572	\$2,524	\$21,942
5	\$555	\$1,664	\$6,656	\$3,232	\$4,718	\$3,120	\$1,131	\$7,800	\$2,600	\$22,600
6	\$571	\$1,714	\$6,855	\$3,329	\$4,860	\$3,213	\$1,165	\$8,033	\$2,678	\$23,278
7	\$588	\$1,765	\$7,061	\$3,429	\$5,005	\$3,310	\$1,200	\$8,275	\$2,758	\$23,976
8	\$606	\$1,818	\$7,273	\$3,531	\$5,155	\$3,409	\$1,236	\$8,523	\$2,841	\$24,695
9	\$624	\$1,873	\$7,491	\$3,637	\$5,310	\$3,511	\$1,273	\$8,778	\$2,926	\$25,436
10	\$643	\$1,929	\$7,716	\$3,746	\$5,469	\$3,617	\$1,311	\$9,042	\$3,014	\$26,199
11	\$662	\$1,987	\$7,947	\$3,859	\$5,634	\$3,725	\$1,351	\$9,313	\$3,104	\$26,985
12	\$682	\$2,046	\$8,186	\$3,975	\$5,803	\$3,837	\$1,391	\$9,592	\$3,197	\$27,795
13	\$703	\$2,108	\$8,431	\$4,094	\$5,977	\$3,952	\$1,433	\$9,880	\$3,293	\$28,629
14	\$724	\$2,171	\$8,684	\$4,217	\$6,156	\$4,071	\$1,476	\$10,177	\$3,392	\$29,488
15	\$745	\$2,236	\$8,945	\$4,343	\$6,341	\$4,193	\$1,520	\$10,482	\$3,494	\$30,372
16	\$768	\$2,303	\$9,213	\$4,473	\$6,531	\$4,319	\$1,566	\$10,796	\$3,599	\$31,284
17	\$791	\$2,372	\$9,489	\$4,608	\$6,727	\$4,448	\$1,613	\$11,120	\$3,707	\$32,222
18	\$814	\$2,443	\$9,774	\$4,746	\$6,929	\$4,582	\$1,661	\$11,454	\$3,818	\$33,189
19	\$839	\$2,517	\$10,067	\$4,888	\$7,136	\$4,719	\$1,711	\$11,797	\$3,932	\$34,184
20	\$864	\$2,592	\$10,369	\$5,035	\$7,350	\$4,861	\$1,762	\$12,151	\$4,050	\$35,210
21	\$890	\$2,670	\$10,680	\$5,186	\$7,571	\$5,006	\$1,815	\$12,516	\$4,172	\$36,266
22	\$917	\$2,750	\$11,001	\$5,342	\$7,798	\$5,157	\$1,869	\$12,891	\$4,297	\$37,354
23	\$944	\$2,833	\$11,331	\$5,502	\$8,032	\$5,311	\$1,926	\$13,278	\$4,426	\$38,475
24	\$973	\$2,918	\$11,671	\$5,667	\$8,273	\$5,471	\$1,983	\$13,676	\$4,559	\$39,629
25	\$1,002	\$3,005	\$12,021	\$5,837	\$8,521	\$5,635	\$2,043	\$14,087	\$4,696	\$40,818
26	\$1,032	\$3,095	\$12,381	\$6,012	\$8,777	\$5,804	\$2,104	\$14,509	\$4,836	\$42,042
27	\$1,063	\$3,188	\$12,753	\$6,192	\$9,040	\$5,978	\$2,167	\$14,945	\$4,982	\$43,304
28	\$1,095	\$3,284	\$13,135	\$6,378	\$9,311	\$6,157	\$2,232	\$15,393	\$5,131	\$44,603
29	\$1,127	\$3,382	\$13,529	\$6,569	\$9,591	\$6,342	\$2,299	\$15,855	\$5,285	\$45,941
30	\$1,161	\$3,484	\$13,935	\$6,766	\$9,878	\$6,532	\$2,368	\$16,330	\$5,443	\$47,319
31	\$1,196	\$3,588	\$14,353	\$6,969	\$10,175	\$6,728	\$2,439	\$16,820	\$5,607	\$48,739
32	\$1,232	\$3,696	\$14,784	\$7,179	\$10,480	\$6,930	\$2,512	\$17,325	\$5,775	\$50,201
33	\$1,269	\$3,807	\$15,227	\$7,394	\$10,794	\$7,138	\$2,588	\$17,845	\$5,948	\$51,707
34	\$1,307	\$3,921	\$15,684	\$7,616	\$11,118	\$7,352	\$2,665	\$18,380	\$6,127	\$53,258
35	\$1,346	\$4,039	\$16,155	\$7,844	\$11,452	\$7,573	\$2,745	\$18,931	\$6,310	\$54,856
36	\$1,387	\$4,160	\$16,639	\$8,080	\$11,795	\$7,800	\$2,828	\$19,499	\$6,500	\$56,501
37	\$1,428	\$4,285	\$17,139	\$8,322	\$12,149	\$8,034	\$2,913	\$20,084	\$6,695	\$58,197
38	\$1,471	\$4,413	\$17,653	\$8,572	\$12,514	\$8,275	\$3,000	\$20,687	\$6,896	\$59,942
39	\$1,515	\$4,546	\$18,182	\$8,829	\$12,889	\$8,523	\$3,090	\$21,308	\$7,103	\$61,741
40	\$1,561	\$4,682	\$18,728	\$9,094	\$13,276	\$8,779	\$3,183	\$21,947	\$7,316	\$63,593

HUC 12 # 102702050302 Annual Cost* Before Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$4,754	\$7,131	\$11,409	\$13,850	\$8,088	\$5,348	\$969	\$13,370	\$4,457	\$46,082
2	\$4,896	\$7,345	\$11,751	\$14,265	\$8,330	\$5,509	\$999	\$13,771	\$4,590	\$47,464
3	\$5,043	\$7,565	\$12,104	\$14,693	\$8,580	\$5,674	\$1,028	\$14,184	\$4,728	\$48,888
4	\$5,195	\$7,792	\$12,467	\$15,134	\$8,838	\$5,844	\$1,059	\$14,610	\$4,870	\$50,355
5	\$5,350	\$8,026	\$12,841	\$15,588	\$9,103	\$6,019	\$1,091	\$15,048	\$5,016	\$51,865
6	\$5,511	\$8,266	\$13,226	\$16,056	\$9,376	\$6,200	\$1,124	\$15,500	\$5,167	\$53,421
7	\$5,676	\$8,514	\$13,623	\$16,537	\$9,657	\$6,386	\$1,158	\$15,965	\$5,322	\$55,024
8	\$5,847	\$8,770	\$14,032	\$17,033	\$9,947	\$6,577	\$1,192	\$16,444	\$5,481	\$56,675
9	\$6,022	\$9,033	\$14,453	\$17,544	\$10,245	\$6,775	\$1,228	\$16,937	\$5,646	\$58,375
10	\$6,203	\$9,304	\$14,886	\$18,071	\$10,553	\$6,978	\$1,265	\$17,445	\$5,815	\$60,126
11	\$6,389	\$9,583	\$15,333	\$18,613	\$10,869	\$7,187	\$1,303	\$17,968	\$5,989	\$61,930
12	\$6,580	\$9,871	\$15,793	\$19,171	\$11,195	\$7,403	\$1,342	\$18,507	\$6,169	\$63,788
13	\$6,778	\$10,167	\$16,267	\$19,746	\$11,531	\$7,625	\$1,382	\$19,063	\$6,354	\$65,702
14	\$6,981	\$10,472	\$16,755	\$20,339	\$11,877	\$7,854	\$1,424	\$19,635	\$6,545	\$67,673
15	\$7,191	\$10,786	\$17,257	\$20,949	\$12,233	\$8,089	\$1,466	\$20,224	\$6,741	\$69,703
16	\$7,406	\$11,109	\$17,775	\$21,577	\$12,600	\$8,332	\$1,510	\$20,830	\$6,943	\$71,794
17	\$7,629	\$11,443	\$18,308	\$22,225	\$12,978	\$8,582	\$1,556	\$21,455	\$7,152	\$73,948
18	\$7,857	\$11,786	\$18,858	\$22,891	\$13,368	\$8,840	\$1,602	\$22,099	\$7,366	\$76,166
19	\$8,093	\$12,140	\$19,423	\$23,578	\$13,769	\$9,105	\$1,650	\$22,762	\$7,587	\$78,451
20	\$8,336	\$12,504	\$20,006	\$24,286	\$14,182	\$9,378	\$1,700	\$23,445	\$7,815	\$80,805
21	\$8,586	\$12,879	\$20,606	\$25,014	\$14,607	\$9,659	\$1,751	\$24,148	\$8,049	\$83,229
22	\$8,844	\$13,265	\$21,224	\$25,765	\$15,045	\$9,949	\$1,803	\$24,872	\$8,291	\$85,726
23	\$9,109	\$13,663	\$21,861	\$26,537	\$15,497	\$10,247	\$1,858	\$25,619	\$8,540	\$88,297
24	\$9,382	\$14,073	\$22,517	\$27,334	\$15,962	\$10,555	\$1,913	\$26,387	\$8,796	\$90,946
25	\$9,664	\$14,495	\$23,193	\$28,154	\$16,441	\$10,872	\$1,971	\$27,179	\$9,060	\$93,675
26	\$9,953	\$14,930	\$23,888	\$28,998	\$16,934	\$11,198	\$2,030	\$27,994	\$9,331	\$96,485
27	\$10,252	\$15,378	\$24,605	\$29,868	\$17,442	\$11,534	\$2,091	\$28,834	\$9,611	\$99,380
28	\$10,560	\$15,839	\$25,343	\$30,764	\$17,965	\$11,880	\$2,153	\$29,699	\$9,900	\$102,361
29	\$10,876	\$16,315	\$26,103	\$31,687	\$18,504	\$12,236	\$2,218	\$30,590	\$10,197	\$105,432
30	\$11,203	\$16,804	\$26,887	\$32,638	\$19,059	\$12,603	\$2,285	\$31,508	\$10,503	\$108,595
31	\$11,539	\$17,308	\$27,693	\$33,617	\$19,631	\$12,981	\$2,353	\$32,453	\$10,818	\$111,853
32	\$11,885	\$17,827	\$28,524	\$34,625	\$20,220	\$13,371	\$2,424	\$33,426	\$11,142	\$115,208
33	\$12,242	\$18,362	\$29,380	\$35,664	\$20,826	\$13,772	\$2,496	\$34,429	\$11,476	\$118,664
34	\$12,609	\$18,913	\$30,261	\$36,734	\$21,451	\$14,185	\$2,571	\$35,462	\$11,821	\$122,224
35	\$12,987	\$19,481	\$31,169	\$37,836	\$22,095	\$14,610	\$2,648	\$36,526	\$12,175	\$125,891
36	\$13,377	\$20,065	\$32,104	\$38,971	\$22,758	\$15,049	\$2,728	\$37,622	\$12,541	\$129,668
37	\$13,778	\$20,667	\$33,067	\$40,140	\$23,440	\$15,500	\$2,810	\$38,750	\$12,917	\$133,558
38	\$14,191	\$21,287	\$34,059	\$41,344	\$24,144	\$15,965	\$2,894	\$39,913	\$13,304	\$137,564
39	\$14,617	\$21,926	\$35,081	\$42,585	\$24,868	\$16,444	\$2,981	\$41,110	\$13,703	\$141,691
40	\$15,056	\$22,583	\$36,133	\$43,862	\$25,614	\$16,937	\$3,070	\$42,344	\$14,115	\$145,942

HUC 12 # 102702050302 Annual Cost* After Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$475	\$1,426	\$5,705	\$2,770	\$4,044	\$2,674	\$969	\$6,685	\$2,228	\$19,371
2	\$490	\$1,469	\$5,876	\$2,853	\$4,165	\$2,754	\$999	\$6,886	\$2,295	\$19,952
3	\$504	\$1,513	\$6,052	\$2,939	\$4,290	\$2,837	\$1,028	\$7,092	\$2,364	\$20,550
4	\$519	\$1,558	\$6,234	\$3,027	\$4,419	\$2,922	\$1,059	\$7,305	\$2,435	\$21,167
5	\$535	\$1,605	\$6,421	\$3,118	\$4,551	\$3,010	\$1,091	\$7,524	\$2,508	\$21,802
6	\$551	\$1,653	\$6,613	\$3,211	\$4,688	\$3,100	\$1,124	\$7,750	\$2,583	\$22,456
7	\$568	\$1,703	\$6,812	\$3,307	\$4,829	\$3,193	\$1,158	\$7,982	\$2,661	\$23,130
8	\$585	\$1,754	\$7,016	\$3,407	\$4,973	\$3,289	\$1,192	\$8,222	\$2,741	\$23,823
9	\$602	\$1,807	\$7,226	\$3,509	\$5,123	\$3,387	\$1,228	\$8,468	\$2,823	\$24,538
10	\$620	\$1,861	\$7,443	\$3,614	\$5,276	\$3,489	\$1,265	\$8,723	\$2,908	\$25,274
11	\$639	\$1,917	\$7,667	\$3,723	\$5,435	\$3,594	\$1,303	\$8,984	\$2,995	\$26,033
12	\$658	\$1,974	\$7,897	\$3,834	\$5,598	\$3,701	\$1,342	\$9,254	\$3,085	\$26,814
13	\$678	\$2,033	\$8,133	\$3,949	\$5,766	\$3,813	\$1,382	\$9,531	\$3,177	\$27,618
14	\$698	\$2,094	\$8,377	\$4,068	\$5,939	\$3,927	\$1,424	\$9,817	\$3,272	\$28,447
15	\$719	\$2,157	\$8,629	\$4,190	\$6,117	\$4,045	\$1,466	\$10,112	\$3,371	\$29,300
16	\$741	\$2,222	\$8,888	\$4,315	\$6,300	\$4,166	\$1,510	\$10,415	\$3,472	\$30,179
17	\$763	\$2,289	\$9,154	\$4,445	\$6,489	\$4,291	\$1,556	\$10,728	\$3,576	\$31,084
18	\$786	\$2,357	\$9,429	\$4,578	\$6,684	\$4,420	\$1,602	\$11,049	\$3,683	\$32,017
19	\$809	\$2,428	\$9,712	\$4,716	\$6,884	\$4,552	\$1,650	\$11,381	\$3,794	\$32,977
20	\$834	\$2,501	\$10,003	\$4,857	\$7,091	\$4,689	\$1,700	\$11,722	\$3,907	\$33,967
21	\$859	\$2,576	\$10,303	\$5,003	\$7,304	\$4,830	\$1,751	\$12,074	\$4,025	\$34,986
22	\$884	\$2,653	\$10,612	\$5,153	\$7,523	\$4,974	\$1,803	\$12,436	\$4,145	\$36,035
23	\$911	\$2,733	\$10,931	\$5,307	\$7,748	\$5,124	\$1,858	\$12,809	\$4,270	\$37,116
24	\$938	\$2,815	\$11,259	\$5,467	\$7,981	\$5,277	\$1,913	\$13,194	\$4,398	\$38,230
25	\$966	\$2,899	\$11,596	\$5,631	\$8,220	\$5,436	\$1,971	\$13,589	\$4,530	\$39,377
26	\$995	\$2,986	\$11,944	\$5,800	\$8,467	\$5,599	\$2,030	\$13,997	\$4,666	\$40,558
27	\$1,025	\$3,076	\$12,302	\$5,974	\$8,721	\$5,767	\$2,091	\$14,417	\$4,806	\$41,775
28	\$1,056	\$3,168	\$12,672	\$6,153	\$8,983	\$5,940	\$2,153	\$14,849	\$4,950	\$43,028
29	\$1,088	\$3,263	\$13,052	\$6,337	\$9,252	\$6,118	\$2,218	\$15,295	\$5,098	\$44,319
30	\$1,120	\$3,361	\$13,443	\$6,528	\$9,530	\$6,302	\$2,285	\$15,754	\$5,251	\$45,648
31	\$1,154	\$3,462	\$13,847	\$6,723	\$9,815	\$6,491	\$2,353	\$16,226	\$5,409	\$47,018
32	\$1,188	\$3,565	\$14,262	\$6,925	\$10,110	\$6,685	\$2,424	\$16,713	\$5,571	\$48,428
33	\$1,224	\$3,672	\$14,690	\$7,133	\$10,413	\$6,886	\$2,496	\$17,215	\$5,738	\$49,881
34	\$1,261	\$3,783	\$15,131	\$7,347	\$10,726	\$7,092	\$2,571	\$17,731	\$5,910	\$51,378
35	\$1,299	\$3,896	\$15,584	\$7,567	\$11,047	\$7,305	\$2,648	\$18,263	\$6,088	\$52,919
36	\$1,338	\$4,013	\$16,052	\$7,794	\$11,379	\$7,524	\$2,728	\$18,811	\$6,270	\$54,506
37	\$1,378	\$4,133	\$16,534	\$8,028	\$11,720	\$7,750	\$2,810	\$19,375	\$6,458	\$56,142
38	\$1,419	\$4,257	\$17,030	\$8,269	\$12,072	\$7,983	\$2,894	\$19,956	\$6,652	\$57,826
39	\$1,462	\$4,385	\$17,540	\$8,517	\$12,434	\$8,222	\$2,981	\$20,555	\$6,852	\$59,561
40	\$1,506	\$4,517	\$18,067	\$8,772	\$12,807	\$8,469	\$3,070	\$21,172	\$7,057	\$61,347

HUC 12 # 102702050306 Annual Cost* Before Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$2,353	\$3,529	\$5,647	\$6,855	\$4,003	\$2,647	\$480	\$6,617	\$2,206	\$22,807
2	\$2,423	\$3,635	\$5,816	\$7,060	\$4,123	\$2,726	\$494	\$6,816	\$2,272	\$23,492
3	\$2,496	\$3,744	\$5,991	\$7,272	\$4,247	\$2,808	\$509	\$7,020	\$2,340	\$24,196
4	\$2,571	\$3,857	\$6,170	\$7,490	\$4,374	\$2,892	\$524	\$7,231	\$2,410	\$24,922
5	\$2,648	\$3,972	\$6,356	\$7,715	\$4,505	\$2,979	\$540	\$7,448	\$2,483	\$25,670
6	\$2,728	\$4,091	\$6,546	\$7,946	\$4,640	\$3,069	\$556	\$7,671	\$2,557	\$26,440
7	\$2,809	\$4,214	\$6,743	\$8,185	\$4,780	\$3,161	\$573	\$7,901	\$2,634	\$27,233
8	\$2,894	\$4,341	\$6,945	\$8,430	\$4,923	\$3,255	\$590	\$8,138	\$2,713	\$28,050
9	\$2,980	\$4,471	\$7,153	\$8,683	\$5,071	\$3,353	\$608	\$8,383	\$2,794	\$28,892
10	\$3,070	\$4,605	\$7,368	\$8,944	\$5,223	\$3,454	\$626	\$8,634	\$2,878	\$29,759
11	\$3,162	\$4,743	\$7,589	\$9,212	\$5,380	\$3,557	\$645	\$8,893	\$2,964	\$30,651
12	\$3,257	\$4,885	\$7,816	\$9,488	\$5,541	\$3,664	\$664	\$9,160	\$3,053	\$31,571
13	\$3,355	\$5,032	\$8,051	\$9,773	\$5,707	\$3,774	\$684	\$9,435	\$3,145	\$32,518
14	\$3,455	\$5,183	\$8,293	\$10,066	\$5,878	\$3,887	\$705	\$9,718	\$3,239	\$33,493
15	\$3,559	\$5,338	\$8,541	\$10,368	\$6,055	\$4,004	\$726	\$10,009	\$3,336	\$34,498
16	\$3,666	\$5,498	\$8,798	\$10,679	\$6,236	\$4,124	\$748	\$10,310	\$3,437	\$35,533
17	\$3,776	\$5,663	\$9,061	\$11,000	\$6,423	\$4,248	\$770	\$10,619	\$3,540	\$36,599
18	\$3,889	\$5,833	\$9,333	\$11,330	\$6,616	\$4,375	\$793	\$10,937	\$3,646	\$37,697
19	\$4,006	\$6,008	\$9,613	\$11,670	\$6,815	\$4,506	\$817	\$11,266	\$3,755	\$38,828
20	\$4,126	\$6,189	\$9,902	\$12,020	\$7,019	\$4,641	\$841	\$11,604	\$3,868	\$39,993
21	\$4,249	\$6,374	\$10,199	\$12,380	\$7,230	\$4,781	\$867	\$11,952	\$3,984	\$41,193
22	\$4,377	\$6,565	\$10,505	\$12,752	\$7,447	\$4,924	\$893	\$12,310	\$4,103	\$42,429
23	\$4,508	\$6,762	\$10,820	\$13,134	\$7,670	\$5,072	\$919	\$12,680	\$4,227	\$43,701
24	\$4,644	\$6,965	\$11,144	\$13,528	\$7,900	\$5,224	\$947	\$13,060	\$4,353	\$45,012
25	\$4,783	\$7,174	\$11,479	\$13,934	\$8,137	\$5,381	\$975	\$13,452	\$4,484	\$46,363
26	\$4,926	\$7,389	\$11,823	\$14,352	\$8,381	\$5,542	\$1,005	\$13,855	\$4,618	\$47,754
27	\$5,074	\$7,611	\$12,178	\$14,783	\$8,633	\$5,708	\$1,035	\$14,271	\$4,757	\$49,186
28	\$5,226	\$7,839	\$12,543	\$15,226	\$8,892	\$5,880	\$1,066	\$14,699	\$4,900	\$50,662
29	\$5,383	\$8,075	\$12,919	\$15,683	\$9,158	\$6,056	\$1,098	\$15,140	\$5,047	\$52,182
30	\$5,545	\$8,317	\$13,307	\$16,154	\$9,433	\$6,238	\$1,131	\$15,594	\$5,198	\$53,747
31	\$5,711	\$8,566	\$13,706	\$16,638	\$9,716	\$6,425	\$1,165	\$16,062	\$5,354	\$55,360
32	\$5,882	\$8,823	\$14,117	\$17,137	\$10,008	\$6,618	\$1,200	\$16,544	\$5,515	\$57,020
33	\$6,059	\$9,088	\$14,541	\$17,651	\$10,308	\$6,816	\$1,236	\$17,040	\$5,680	\$58,731
34	\$6,241	\$9,361	\$14,977	\$18,181	\$10,617	\$7,021	\$1,273	\$17,551	\$5,850	\$60,493
35	\$6,428	\$9,642	\$15,427	\$18,726	\$10,935	\$7,231	\$1,311	\$18,078	\$6,026	\$62,308
36	\$6,621	\$9,931	\$15,889	\$19,288	\$11,264	\$7,448	\$1,350	\$18,620	\$6,207	\$64,177
37	\$6,819	\$10,229	\$16,366	\$19,867	\$11,601	\$7,672	\$1,391	\$19,179	\$6,393	\$66,102
38	\$7,024	\$10,536	\$16,857	\$20,463	\$11,949	\$7,902	\$1,432	\$19,754	\$6,585	\$68,085
39	\$7,234	\$10,852	\$17,363	\$21,077	\$12,308	\$8,139	\$1,475	\$20,347	\$6,782	\$70,128
40	\$7,451	\$11,177	\$17,884	\$21,709	\$12,677	\$8,383	\$1,520	\$20,957	\$6,986	\$72,232

HUC 12 # 102702050306 Annual Cost* After Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$235	\$706	\$2,823	\$1,371	\$2,001	\$1,323	\$480	\$3,309	\$1,103	\$9,587
2	\$242	\$727	\$2,908	\$1,412	\$2,061	\$1,363	\$494	\$3,408	\$1,136	\$9,875
3	\$250	\$749	\$2,995	\$1,454	\$2,123	\$1,404	\$509	\$3,510	\$1,170	\$10,171
4	\$257	\$771	\$3,085	\$1,498	\$2,187	\$1,446	\$524	\$3,615	\$1,205	\$10,476
5	\$265	\$794	\$3,178	\$1,543	\$2,253	\$1,490	\$540	\$3,724	\$1,241	\$10,790
6	\$273	\$818	\$3,273	\$1,589	\$2,320	\$1,534	\$556	\$3,836	\$1,279	\$11,114
7	\$281	\$843	\$3,371	\$1,637	\$2,390	\$1,580	\$573	\$3,951	\$1,317	\$11,448
8	\$289	\$868	\$3,472	\$1,686	\$2,462	\$1,628	\$590	\$4,069	\$1,356	\$11,791
9	\$298	\$894	\$3,577	\$1,737	\$2,535	\$1,677	\$608	\$4,191	\$1,397	\$12,145
10	\$307	\$921	\$3,684	\$1,789	\$2,611	\$1,727	\$626	\$4,317	\$1,439	\$12,509
11	\$316	\$949	\$3,794	\$1,842	\$2,690	\$1,779	\$645	\$4,447	\$1,482	\$12,884
12	\$326	\$977	\$3,908	\$1,898	\$2,770	\$1,832	\$664	\$4,580	\$1,527	\$13,271
13	\$335	\$1,006	\$4,025	\$1,955	\$2,854	\$1,887	\$684	\$4,717	\$1,572	\$13,669
14	\$346	\$1,037	\$4,146	\$2,013	\$2,939	\$1,944	\$705	\$4,859	\$1,620	\$14,079
15	\$356	\$1,068	\$4,271	\$2,074	\$3,027	\$2,002	\$726	\$5,005	\$1,668	\$14,502
16	\$367	\$1,100	\$4,399	\$2,136	\$3,118	\$2,062	\$748	\$5,155	\$1,718	\$14,937
17	\$378	\$1,133	\$4,531	\$2,200	\$3,212	\$2,124	\$770	\$5,309	\$1,770	\$15,385
18	\$389	\$1,167	\$4,667	\$2,266	\$3,308	\$2,187	\$793	\$5,469	\$1,823	\$15,846
19	\$401	\$1,202	\$4,807	\$2,334	\$3,407	\$2,253	\$817	\$5,633	\$1,878	\$16,322
20	\$413	\$1,238	\$4,951	\$2,404	\$3,510	\$2,321	\$841	\$5,802	\$1,934	\$16,811
21	\$425	\$1,275	\$5,099	\$2,476	\$3,615	\$2,390	\$867	\$5,976	\$1,992	\$17,316
22	\$438	\$1,313	\$5,252	\$2,550	\$3,723	\$2,462	\$893	\$6,155	\$2,052	\$17,835
23	\$451	\$1,352	\$5,410	\$2,627	\$3,835	\$2,536	\$919	\$6,340	\$2,113	\$18,370
24	\$464	\$1,393	\$5,572	\$2,706	\$3,950	\$2,612	\$947	\$6,530	\$2,177	\$18,921
25	\$478	\$1,435	\$5,739	\$2,787	\$4,069	\$2,690	\$975	\$6,726	\$2,242	\$19,489
26	\$493	\$1,478	\$5,912	\$2,870	\$4,191	\$2,771	\$1,005	\$6,928	\$2,309	\$20,073
27	\$507	\$1,522	\$6,089	\$2,957	\$4,316	\$2,854	\$1,035	\$7,135	\$2,378	\$20,676
28	\$523	\$1,568	\$6,272	\$3,045	\$4,446	\$2,940	\$1,066	\$7,350	\$2,450	\$21,296
29	\$538	\$1,615	\$6,460	\$3,137	\$4,579	\$3,028	\$1,098	\$7,570	\$2,523	\$21,935
30	\$554	\$1,663	\$6,654	\$3,231	\$4,717	\$3,119	\$1,131	\$7,797	\$2,599	\$22,593
31	\$571	\$1,713	\$6,853	\$3,328	\$4,858	\$3,212	\$1,165	\$8,031	\$2,677	\$23,271
32	\$588	\$1,765	\$7,059	\$3,427	\$5,004	\$3,309	\$1,200	\$8,272	\$2,757	\$23,969
33	\$606	\$1,818	\$7,270	\$3,530	\$5,154	\$3,408	\$1,236	\$8,520	\$2,840	\$24,688
34	\$624	\$1,872	\$7,489	\$3,636	\$5,308	\$3,510	\$1,273	\$8,776	\$2,925	\$25,428
35	\$643	\$1,928	\$7,713	\$3,745	\$5,468	\$3,616	\$1,311	\$9,039	\$3,013	\$26,191
36	\$662	\$1,986	\$7,945	\$3,858	\$5,632	\$3,724	\$1,350	\$9,310	\$3,103	\$26,977
37	\$682	\$2,046	\$8,183	\$3,973	\$5,801	\$3,836	\$1,391	\$9,589	\$3,196	\$27,786
38	\$702	\$2,107	\$8,428	\$4,093	\$5,975	\$3,951	\$1,432	\$9,877	\$3,292	\$28,620
39	\$723	\$2,170	\$8,681	\$4,215	\$6,154	\$4,069	\$1,475	\$10,173	\$3,391	\$29,479
40	\$745	\$2,235	\$8,942	\$4,342	\$6,339	\$4,191	\$1,520	\$10,479	\$3,493	\$30,363

HUC 12 # 102702050401 Annual Cost* Before Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$3,686	\$5,529	\$8,846	\$10,738	\$6,270	\$4,146	\$752	\$10,366	\$3,455	\$35,727
2	\$3,796	\$5,694	\$9,111	\$11,060	\$6,459	\$4,271	\$774	\$10,677	\$3,559	\$36,799
3	\$3,910	\$5,865	\$9,384	\$11,392	\$6,652	\$4,399	\$797	\$10,997	\$3,666	\$37,903
4	\$4,027	\$6,041	\$9,666	\$11,733	\$6,852	\$4,531	\$821	\$11,327	\$3,776	\$39,040
5	\$4,148	\$6,222	\$9,956	\$12,085	\$7,057	\$4,667	\$846	\$11,667	\$3,889	\$40,211
6	\$4,273	\$6,409	\$10,254	\$12,448	\$7,269	\$4,807	\$871	\$12,017	\$4,006	\$41,418
7	\$4,401	\$6,601	\$10,562	\$12,821	\$7,487	\$4,951	\$897	\$12,377	\$4,126	\$42,660
8	\$4,533	\$6,799	\$10,879	\$13,206	\$7,712	\$5,100	\$924	\$12,749	\$4,250	\$43,940
9	\$4,669	\$7,003	\$11,205	\$13,602	\$7,943	\$5,253	\$952	\$13,131	\$4,377	\$45,258
10	\$4,809	\$7,213	\$11,542	\$14,010	\$8,181	\$5,410	\$981	\$13,525	\$4,508	\$46,616
11	\$4,953	\$7,430	\$11,888	\$14,431	\$8,427	\$5,572	\$1,010	\$13,931	\$4,644	\$48,015
12	\$5,102	\$7,653	\$12,244	\$14,864	\$8,680	\$5,740	\$1,040	\$14,349	\$4,783	\$49,455
13	\$5,255	\$7,882	\$12,612	\$15,309	\$8,940	\$5,912	\$1,072	\$14,779	\$4,926	\$50,939
14	\$5,413	\$8,119	\$12,990	\$15,769	\$9,208	\$6,089	\$1,104	\$15,223	\$5,074	\$52,467
15	\$5,575	\$8,362	\$13,380	\$16,242	\$9,485	\$6,272	\$1,137	\$15,679	\$5,226	\$54,041
16	\$5,742	\$8,613	\$13,781	\$16,729	\$9,769	\$6,460	\$1,171	\$16,150	\$5,383	\$55,662
17	\$5,914	\$8,872	\$14,195	\$17,231	\$10,062	\$6,654	\$1,206	\$16,634	\$5,545	\$57,332
18	\$6,092	\$9,138	\$14,620	\$17,748	\$10,364	\$6,853	\$1,242	\$17,133	\$5,711	\$59,052
19	\$6,275	\$9,412	\$15,059	\$18,280	\$10,675	\$7,059	\$1,280	\$17,647	\$5,882	\$60,823
20	\$6,463	\$9,694	\$15,511	\$18,829	\$10,995	\$7,271	\$1,318	\$18,177	\$6,059	\$62,648
21	\$6,657	\$9,985	\$15,976	\$19,394	\$11,325	\$7,489	\$1,357	\$18,722	\$6,241	\$64,528
22	\$6,856	\$10,285	\$16,455	\$19,975	\$11,665	\$7,713	\$1,398	\$19,284	\$6,428	\$66,463
23	\$7,062	\$10,593	\$16,949	\$20,575	\$12,015	\$7,945	\$1,440	\$19,862	\$6,621	\$68,457
24	\$7,274	\$10,911	\$17,458	\$21,192	\$12,375	\$8,183	\$1,483	\$20,458	\$6,819	\$70,511
25	\$7,492	\$11,238	\$17,981	\$21,828	\$12,746	\$8,429	\$1,528	\$21,072	\$7,024	\$72,626
26	\$7,717	\$11,575	\$18,521	\$22,482	\$13,129	\$8,682	\$1,574	\$21,704	\$7,235	\$74,805
27	\$7,948	\$11,923	\$19,076	\$23,157	\$13,523	\$8,942	\$1,621	\$22,355	\$7,452	\$77,049
28	\$8,187	\$12,280	\$19,649	\$23,852	\$13,928	\$9,210	\$1,670	\$23,026	\$7,675	\$79,361
29	\$8,433	\$12,649	\$20,238	\$24,567	\$14,346	\$9,487	\$1,720	\$23,717	\$7,906	\$81,742
30	\$8,686	\$13,028	\$20,845	\$25,304	\$14,777	\$9,771	\$1,771	\$24,428	\$8,143	\$84,194
31	\$8,946	\$13,419	\$21,471	\$26,063	\$15,220	\$10,064	\$1,824	\$25,161	\$8,387	\$86,720
32	\$9,214	\$13,822	\$22,115	\$26,845	\$15,677	\$10,366	\$1,879	\$25,916	\$8,639	\$89,321
33	\$9,491	\$14,236	\$22,778	\$27,651	\$16,147	\$10,677	\$1,935	\$26,693	\$8,898	\$92,001
34	\$9,776	\$14,663	\$23,461	\$28,480	\$16,631	\$10,998	\$1,993	\$27,494	\$9,165	\$94,761
35	\$10,069	\$15,103	\$24,165	\$29,334	\$17,130	\$11,328	\$2,053	\$28,319	\$9,440	\$97,604
36	\$10,371	\$15,556	\$24,890	\$30,214	\$17,644	\$11,667	\$2,115	\$29,168	\$9,723	\$100,532
37	\$10,682	\$16,023	\$25,637	\$31,121	\$18,173	\$12,017	\$2,178	\$30,043	\$10,014	\$103,548
38	\$11,003	\$16,504	\$26,406	\$32,055	\$18,719	\$12,378	\$2,244	\$30,945	\$10,315	\$106,654
39	\$11,333	\$16,999	\$27,198	\$33,016	\$19,280	\$12,749	\$2,311	\$31,873	\$10,624	\$109,854
40	\$11,673	\$17,509	\$28,014	\$34,007	\$19,859	\$13,132	\$2,380	\$32,829	\$10,943	\$113,150

HUC 12 # 102702050401 Annual Cost* After Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$369	\$1,106	\$4,423	\$2,148	\$3,135	\$2,073	\$752	\$5,183	\$1,728	\$15,018
2	\$380	\$1,139	\$4,555	\$2,212	\$3,229	\$2,135	\$774	\$5,338	\$1,779	\$15,469
3	\$391	\$1,173	\$4,692	\$2,278	\$3,326	\$2,199	\$797	\$5,499	\$1,833	\$15,933
4	\$403	\$1,208	\$4,833	\$2,347	\$3,426	\$2,265	\$821	\$5,664	\$1,888	\$16,411
5	\$415	\$1,244	\$4,978	\$2,417	\$3,529	\$2,333	\$846	\$5,833	\$1,944	\$16,903
6	\$427	\$1,282	\$5,127	\$2,490	\$3,635	\$2,403	\$871	\$6,008	\$2,003	\$17,410
7	\$440	\$1,320	\$5,281	\$2,564	\$3,744	\$2,475	\$897	\$6,189	\$2,063	\$17,932
8	\$453	\$1,360	\$5,439	\$2,641	\$3,856	\$2,550	\$924	\$6,374	\$2,125	\$18,470
9	\$467	\$1,401	\$5,603	\$2,720	\$3,972	\$2,626	\$952	\$6,566	\$2,189	\$19,025
10	\$481	\$1,443	\$5,771	\$2,802	\$4,091	\$2,705	\$981	\$6,763	\$2,254	\$19,595
11	\$495	\$1,486	\$5,944	\$2,886	\$4,213	\$2,786	\$1,010	\$6,965	\$2,322	\$20,183
12	\$510	\$1,531	\$6,122	\$2,973	\$4,340	\$2,870	\$1,040	\$7,174	\$2,391	\$20,789
13	\$525	\$1,576	\$6,306	\$3,062	\$4,470	\$2,956	\$1,072	\$7,390	\$2,463	\$21,412
14	\$541	\$1,624	\$6,495	\$3,154	\$4,604	\$3,045	\$1,104	\$7,611	\$2,537	\$22,055
15	\$557	\$1,672	\$6,690	\$3,248	\$4,742	\$3,136	\$1,137	\$7,840	\$2,613	\$22,716
16	\$574	\$1,723	\$6,891	\$3,346	\$4,885	\$3,230	\$1,171	\$8,075	\$2,692	\$23,398
17	\$591	\$1,774	\$7,097	\$3,446	\$5,031	\$3,327	\$1,206	\$8,317	\$2,772	\$24,100
18	\$609	\$1,828	\$7,310	\$3,550	\$5,182	\$3,427	\$1,242	\$8,567	\$2,856	\$24,823
19	\$627	\$1,882	\$7,530	\$3,656	\$5,337	\$3,529	\$1,280	\$8,824	\$2,941	\$25,567
20	\$646	\$1,939	\$7,755	\$3,766	\$5,498	\$3,635	\$1,318	\$9,088	\$3,029	\$26,334
21	\$666	\$1,997	\$7,988	\$3,879	\$5,663	\$3,744	\$1,357	\$9,361	\$3,120	\$27,124
22	\$686	\$2,057	\$8,228	\$3,995	\$5,832	\$3,857	\$1,398	\$9,642	\$3,214	\$27,938
23	\$706	\$2,119	\$8,475	\$4,115	\$6,007	\$3,972	\$1,440	\$9,931	\$3,310	\$28,776
24	\$727	\$2,182	\$8,729	\$4,238	\$6,188	\$4,092	\$1,483	\$10,229	\$3,410	\$29,640
25	\$749	\$2,248	\$8,991	\$4,366	\$6,373	\$4,214	\$1,528	\$10,536	\$3,512	\$30,529
26	\$772	\$2,315	\$9,260	\$4,496	\$6,564	\$4,341	\$1,574	\$10,852	\$3,617	\$31,445
27	\$795	\$2,385	\$9,538	\$4,631	\$6,761	\$4,471	\$1,621	\$11,178	\$3,726	\$32,388
28	\$819	\$2,456	\$9,824	\$4,770	\$6,964	\$4,605	\$1,670	\$11,513	\$3,838	\$33,360
29	\$843	\$2,530	\$10,119	\$4,913	\$7,173	\$4,743	\$1,720	\$11,858	\$3,953	\$34,360
30	\$869	\$2,606	\$10,423	\$5,061	\$7,388	\$4,886	\$1,771	\$12,214	\$4,071	\$35,391
31	\$895	\$2,684	\$10,735	\$5,213	\$7,610	\$5,032	\$1,824	\$12,580	\$4,193	\$36,453
32	\$921	\$2,764	\$11,057	\$5,369	\$7,838	\$5,183	\$1,879	\$12,958	\$4,319	\$37,547
33	\$949	\$2,847	\$11,389	\$5,530	\$8,073	\$5,339	\$1,935	\$13,347	\$4,449	\$38,673
34	\$978	\$2,933	\$11,731	\$5,696	\$8,316	\$5,499	\$1,993	\$13,747	\$4,582	\$39,833
35	\$1,007	\$3,021	\$12,083	\$5,867	\$8,565	\$5,664	\$2,053	\$14,159	\$4,720	\$41,028
36	\$1,037	\$3,111	\$12,445	\$6,043	\$8,822	\$5,834	\$2,115	\$14,584	\$4,861	\$42,259
37	\$1,068	\$3,205	\$12,819	\$6,224	\$9,087	\$6,009	\$2,178	\$15,022	\$5,007	\$43,527
38	\$1,100	\$3,301	\$13,203	\$6,411	\$9,359	\$6,189	\$2,244	\$15,472	\$5,157	\$44,833
39	\$1,133	\$3,400	\$13,599	\$6,603	\$9,640	\$6,375	\$2,311	\$15,937	\$5,312	\$46,178
40	\$1,167	\$3,502	\$14,007	\$6,801	\$9,929	\$6,566	\$2,380	\$16,415	\$5,472	\$47,563

HUC 12 # 102702050402 Annual Cost* Before Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$1,787	\$2,680	\$4,288	\$5,205	\$3,039	\$2,010	\$364	\$5,025	\$1,675	\$17,318
2	\$1,840	\$2,760	\$4,416	\$5,361	\$3,131	\$2,070	\$375	\$5,175	\$1,725	\$17,837
3	\$1,895	\$2,843	\$4,549	\$5,522	\$3,224	\$2,132	\$386	\$5,331	\$1,777	\$18,372
4	\$1,952	\$2,928	\$4,685	\$5,687	\$3,321	\$2,196	\$398	\$5,490	\$1,830	\$18,923
5	\$2,011	\$3,016	\$4,826	\$5,858	\$3,421	\$2,262	\$410	\$5,655	\$1,885	\$19,491
6	\$2,071	\$3,107	\$4,971	\$6,034	\$3,523	\$2,330	\$422	\$5,825	\$1,942	\$20,076
7	\$2,133	\$3,200	\$5,120	\$6,215	\$3,629	\$2,400	\$435	\$6,000	\$2,000	\$20,678
8	\$2,197	\$3,296	\$5,273	\$6,401	\$3,738	\$2,472	\$448	\$6,180	\$2,060	\$21,298
9	\$2,263	\$3,395	\$5,431	\$6,593	\$3,850	\$2,546	\$461	\$6,365	\$2,122	\$21,937
10	\$2,331	\$3,496	\$5,594	\$6,791	\$3,966	\$2,622	\$475	\$6,556	\$2,185	\$22,596
11	\$2,401	\$3,601	\$5,762	\$6,995	\$4,085	\$2,701	\$490	\$6,753	\$2,251	\$23,273
12	\$2,473	\$3,709	\$5,935	\$7,205	\$4,207	\$2,782	\$504	\$6,955	\$2,318	\$23,972
13	\$2,547	\$3,821	\$6,113	\$7,421	\$4,333	\$2,866	\$519	\$7,164	\$2,388	\$24,691
14	\$2,624	\$3,935	\$6,296	\$7,643	\$4,463	\$2,951	\$535	\$7,379	\$2,460	\$25,432
15	\$2,702	\$4,053	\$6,485	\$7,873	\$4,597	\$3,040	\$551	\$7,600	\$2,533	\$26,194
16	\$2,783	\$4,175	\$6,680	\$8,109	\$4,735	\$3,131	\$568	\$7,828	\$2,609	\$26,980
17	\$2,867	\$4,300	\$6,880	\$8,352	\$4,877	\$3,225	\$585	\$8,063	\$2,688	\$27,790
18	\$2,953	\$4,429	\$7,087	\$8,603	\$5,024	\$3,322	\$602	\$8,305	\$2,768	\$28,623
19	\$3,041	\$4,562	\$7,299	\$8,861	\$5,174	\$3,422	\$620	\$8,554	\$2,851	\$29,482
20	\$3,133	\$4,699	\$7,518	\$9,127	\$5,330	\$3,524	\$639	\$8,811	\$2,937	\$30,367
21	\$3,227	\$4,840	\$7,744	\$9,400	\$5,489	\$3,630	\$658	\$9,075	\$3,025	\$31,278
22	\$3,323	\$4,985	\$7,976	\$9,682	\$5,654	\$3,739	\$678	\$9,347	\$3,116	\$32,216
23	\$3,423	\$5,135	\$8,215	\$9,973	\$5,824	\$3,851	\$698	\$9,628	\$3,209	\$33,182
24	\$3,526	\$5,289	\$8,462	\$10,272	\$5,998	\$3,967	\$719	\$9,916	\$3,305	\$34,178
25	\$3,632	\$5,447	\$8,716	\$10,580	\$6,178	\$4,086	\$741	\$10,214	\$3,405	\$35,203
26	\$3,741	\$5,611	\$8,977	\$10,898	\$6,364	\$4,208	\$763	\$10,520	\$3,507	\$36,259
27	\$3,853	\$5,779	\$9,247	\$11,225	\$6,555	\$4,334	\$786	\$10,836	\$3,612	\$37,347
28	\$3,968	\$5,952	\$9,524	\$11,561	\$6,751	\$4,464	\$809	\$11,161	\$3,720	\$38,467
29	\$4,087	\$6,131	\$9,810	\$11,908	\$6,954	\$4,598	\$834	\$11,496	\$3,832	\$39,621
30	\$4,210	\$6,315	\$10,104	\$12,265	\$7,162	\$4,736	\$859	\$11,841	\$3,947	\$40,810
31	\$4,336	\$6,504	\$10,407	\$12,633	\$7,377	\$4,878	\$884	\$12,196	\$4,065	\$42,034
32	\$4,466	\$6,700	\$10,719	\$13,012	\$7,599	\$5,025	\$911	\$12,562	\$4,187	\$43,295
33	\$4,600	\$6,901	\$11,041	\$13,403	\$7,827	\$5,175	\$938	\$12,939	\$4,313	\$44,594
34	\$4,738	\$7,108	\$11,372	\$13,805	\$8,061	\$5,331	\$966	\$13,327	\$4,442	\$45,932
35	\$4,881	\$7,321	\$11,713	\$14,219	\$8,303	\$5,491	\$995	\$13,727	\$4,576	\$47,310
36	\$5,027	\$7,540	\$12,065	\$14,645	\$8,552	\$5,655	\$1,025	\$14,138	\$4,713	\$48,729
37	\$5,178	\$7,767	\$12,427	\$15,085	\$8,809	\$5,825	\$1,056	\$14,562	\$4,854	\$50,191
38	\$5,333	\$8,000	\$12,799	\$15,537	\$9,073	\$6,000	\$1,088	\$14,999	\$5,000	\$51,697
39	\$5,493	\$8,240	\$13,183	\$16,003	\$9,345	\$6,180	\$1,120	\$15,449	\$5,150	\$53,248
40	\$5,658	\$8,487	\$13,579	\$16,484	\$9,626	\$6,365	\$1,154	\$15,913	\$5,304	\$54,845

HUC 12 # 102702050402 Annual Cost* After Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$179	\$536	\$2,144	\$1,041	\$1,520	\$1,005	\$364	\$2,512	\$837	\$7,280
2	\$184	\$552	\$2,208	\$1,072	\$1,565	\$1,035	\$375	\$2,588	\$863	\$7,498
3	\$190	\$569	\$2,274	\$1,104	\$1,612	\$1,066	\$386	\$2,665	\$888	\$7,723
4	\$195	\$586	\$2,343	\$1,137	\$1,661	\$1,098	\$398	\$2,745	\$915	\$7,955
5	\$201	\$603	\$2,413	\$1,172	\$1,710	\$1,131	\$410	\$2,828	\$943	\$8,193
6	\$207	\$621	\$2,485	\$1,207	\$1,762	\$1,165	\$422	\$2,912	\$971	\$8,439
7	\$213	\$640	\$2,560	\$1,243	\$1,815	\$1,200	\$435	\$3,000	\$1,000	\$8,692
8	\$220	\$659	\$2,637	\$1,280	\$1,869	\$1,236	\$448	\$3,090	\$1,030	\$8,953
9	\$226	\$679	\$2,716	\$1,319	\$1,925	\$1,273	\$461	\$3,182	\$1,061	\$9,222
10	\$233	\$699	\$2,797	\$1,358	\$1,983	\$1,311	\$475	\$3,278	\$1,093	\$9,498
11	\$240	\$720	\$2,881	\$1,399	\$2,042	\$1,351	\$490	\$3,376	\$1,125	\$9,783
12	\$247	\$742	\$2,968	\$1,441	\$2,104	\$1,391	\$504	\$3,478	\$1,159	\$10,077
13	\$255	\$764	\$3,057	\$1,484	\$2,167	\$1,433	\$519	\$3,582	\$1,194	\$10,379
14	\$262	\$787	\$3,148	\$1,529	\$2,232	\$1,476	\$535	\$3,689	\$1,230	\$10,690
15	\$270	\$811	\$3,243	\$1,575	\$2,299	\$1,520	\$551	\$3,800	\$1,267	\$11,011
16	\$278	\$835	\$3,340	\$1,622	\$2,368	\$1,566	\$568	\$3,914	\$1,305	\$11,341
17	\$287	\$860	\$3,440	\$1,670	\$2,439	\$1,613	\$585	\$4,031	\$1,344	\$11,682
18	\$295	\$886	\$3,543	\$1,721	\$2,512	\$1,661	\$602	\$4,152	\$1,384	\$12,032
19	\$304	\$912	\$3,650	\$1,772	\$2,587	\$1,711	\$620	\$4,277	\$1,426	\$12,393
20	\$313	\$940	\$3,759	\$1,825	\$2,665	\$1,762	\$639	\$4,405	\$1,468	\$12,765
21	\$323	\$968	\$3,872	\$1,880	\$2,745	\$1,815	\$658	\$4,537	\$1,512	\$13,148
22	\$332	\$997	\$3,988	\$1,936	\$2,827	\$1,869	\$678	\$4,674	\$1,558	\$13,542
23	\$342	\$1,027	\$4,108	\$1,995	\$2,912	\$1,926	\$698	\$4,814	\$1,605	\$13,948
24	\$353	\$1,058	\$4,231	\$2,054	\$2,999	\$1,983	\$719	\$4,958	\$1,653	\$14,367
25	\$363	\$1,089	\$4,358	\$2,116	\$3,089	\$2,043	\$741	\$5,107	\$1,702	\$14,798
26	\$374	\$1,122	\$4,489	\$2,180	\$3,182	\$2,104	\$763	\$5,260	\$1,753	\$15,242
27	\$385	\$1,156	\$4,623	\$2,245	\$3,277	\$2,167	\$786	\$5,418	\$1,806	\$15,699
28	\$397	\$1,190	\$4,762	\$2,312	\$3,376	\$2,232	\$809	\$5,580	\$1,860	\$16,170
29	\$409	\$1,226	\$4,905	\$2,382	\$3,477	\$2,299	\$834	\$5,748	\$1,916	\$16,655
30	\$421	\$1,263	\$5,052	\$2,453	\$3,581	\$2,368	\$859	\$5,920	\$1,973	\$17,155
31	\$434	\$1,301	\$5,204	\$2,527	\$3,689	\$2,439	\$884	\$6,098	\$2,033	\$17,669
32	\$447	\$1,340	\$5,360	\$2,602	\$3,799	\$2,512	\$911	\$6,281	\$2,094	\$18,199
33	\$460	\$1,380	\$5,520	\$2,681	\$3,913	\$2,588	\$938	\$6,469	\$2,156	\$18,745
34	\$474	\$1,422	\$5,686	\$2,761	\$4,031	\$2,665	\$966	\$6,663	\$2,221	\$19,308
35	\$488	\$1,464	\$5,857	\$2,844	\$4,152	\$2,745	\$995	\$6,863	\$2,288	\$19,887
36	\$503	\$1,508	\$6,032	\$2,929	\$4,276	\$2,828	\$1,025	\$7,069	\$2,356	\$20,484
37	\$518	\$1,553	\$6,213	\$3,017	\$4,404	\$2,912	\$1,056	\$7,281	\$2,427	\$21,098
38	\$533	\$1,600	\$6,400	\$3,107	\$4,537	\$3,000	\$1,088	\$7,500	\$2,500	\$21,731
39	\$549	\$1,648	\$6,592	\$3,201	\$4,673	\$3,090	\$1,120	\$7,725	\$2,575	\$22,383
40	\$566	\$1,697	\$6,789	\$3,297	\$4,813	\$3,183	\$1,154	\$7,956	\$2,652	\$23,055

HUC 12 # 102702050403 Annual Cost* Before Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$2,171	\$3,256	\$5,210	\$6,324	\$3,693	\$2,442	\$443	\$6,105	\$2,035	\$21,043
2	\$2,236	\$3,354	\$5,366	\$6,514	\$3,804	\$2,515	\$456	\$6,289	\$2,096	\$21,674
3	\$2,303	\$3,455	\$5,527	\$6,710	\$3,918	\$2,591	\$470	\$6,477	\$2,159	\$22,325
4	\$2,372	\$3,558	\$5,693	\$6,911	\$4,036	\$2,669	\$484	\$6,672	\$2,224	\$22,994
5	\$2,443	\$3,665	\$5,864	\$7,118	\$4,157	\$2,749	\$498	\$6,872	\$2,291	\$23,684
6	\$2,517	\$3,775	\$6,040	\$7,332	\$4,281	\$2,831	\$513	\$7,078	\$2,359	\$24,395
7	\$2,592	\$3,888	\$6,221	\$7,552	\$4,410	\$2,916	\$529	\$7,290	\$2,430	\$25,127
8	\$2,670	\$4,005	\$6,408	\$7,778	\$4,542	\$3,004	\$544	\$7,509	\$2,503	\$25,880
9	\$2,750	\$4,125	\$6,600	\$8,012	\$4,678	\$3,094	\$561	\$7,734	\$2,578	\$26,657
10	\$2,832	\$4,249	\$6,798	\$8,252	\$4,819	\$3,187	\$578	\$7,966	\$2,655	\$27,457
11	\$2,917	\$4,376	\$7,002	\$8,500	\$4,963	\$3,282	\$595	\$8,205	\$2,735	\$28,280
12	\$3,005	\$4,507	\$7,212	\$8,755	\$5,112	\$3,381	\$613	\$8,451	\$2,817	\$29,129
13	\$3,095	\$4,643	\$7,428	\$9,017	\$5,266	\$3,482	\$631	\$8,705	\$2,902	\$30,003
14	\$3,188	\$4,782	\$7,651	\$9,288	\$5,424	\$3,586	\$650	\$8,966	\$2,989	\$30,903
15	\$3,284	\$4,925	\$7,881	\$9,566	\$5,586	\$3,694	\$670	\$9,235	\$3,078	\$31,830
16	\$3,382	\$5,073	\$8,117	\$9,853	\$5,754	\$3,805	\$690	\$9,512	\$3,171	\$32,785
17	\$3,484	\$5,225	\$8,361	\$10,149	\$5,927	\$3,919	\$710	\$9,797	\$3,266	\$33,768
18	\$3,588	\$5,382	\$8,611	\$10,453	\$6,104	\$4,037	\$732	\$10,091	\$3,364	\$34,781
19	\$3,696	\$5,544	\$8,870	\$10,767	\$6,287	\$4,158	\$754	\$10,394	\$3,465	\$35,825
20	\$3,807	\$5,710	\$9,136	\$11,090	\$6,476	\$4,282	\$776	\$10,706	\$3,569	\$36,899
21	\$3,921	\$5,881	\$9,410	\$11,423	\$6,670	\$4,411	\$800	\$11,027	\$3,676	\$38,006
22	\$4,038	\$6,058	\$9,692	\$11,765	\$6,871	\$4,543	\$824	\$11,358	\$3,786	\$39,147
23	\$4,160	\$6,239	\$9,983	\$12,118	\$7,077	\$4,679	\$848	\$11,699	\$3,900	\$40,321
24	\$4,284	\$6,426	\$10,282	\$12,482	\$7,289	\$4,820	\$874	\$12,050	\$4,017	\$41,531
25	\$4,413	\$6,619	\$10,591	\$12,856	\$7,508	\$4,964	\$900	\$12,411	\$4,137	\$42,776
26	\$4,545	\$6,818	\$10,909	\$13,242	\$7,733	\$5,113	\$927	\$12,783	\$4,261	\$44,060
27	\$4,682	\$7,022	\$11,236	\$13,639	\$7,965	\$5,267	\$955	\$13,167	\$4,389	\$45,382
28	\$4,822	\$7,233	\$11,573	\$14,048	\$8,204	\$5,425	\$983	\$13,562	\$4,521	\$46,743
29	\$4,967	\$7,450	\$11,920	\$14,470	\$8,450	\$5,588	\$1,013	\$13,969	\$4,656	\$48,145
30	\$5,116	\$7,674	\$12,278	\$14,904	\$8,703	\$5,755	\$1,043	\$14,388	\$4,796	\$49,590
31	\$5,269	\$7,904	\$12,646	\$15,351	\$8,964	\$5,928	\$1,075	\$14,820	\$4,940	\$51,077
32	\$5,427	\$8,141	\$13,025	\$15,812	\$9,233	\$6,106	\$1,107	\$15,264	\$5,088	\$52,610
33	\$5,590	\$8,385	\$13,416	\$16,286	\$9,510	\$6,289	\$1,140	\$15,722	\$5,241	\$54,188
34	\$5,758	\$8,637	\$13,819	\$16,775	\$9,796	\$6,477	\$1,174	\$16,194	\$5,398	\$55,814
35	\$5,931	\$8,896	\$14,233	\$17,278	\$10,090	\$6,672	\$1,209	\$16,680	\$5,560	\$57,488
36	\$6,108	\$9,163	\$14,660	\$17,796	\$10,392	\$6,872	\$1,246	\$17,180	\$5,727	\$59,213
37	\$6,292	\$9,438	\$15,100	\$18,330	\$10,704	\$7,078	\$1,283	\$17,695	\$5,898	\$60,989
38	\$6,480	\$9,721	\$15,553	\$18,880	\$11,025	\$7,290	\$1,322	\$18,226	\$6,075	\$62,819
39	\$6,675	\$10,012	\$16,020	\$19,446	\$11,356	\$7,509	\$1,361	\$18,773	\$6,258	\$64,703
40	\$6,875	\$10,313	\$16,500	\$20,030	\$11,697	\$7,734	\$1,402	\$19,336	\$6,445	\$66,644

HUC 12 # 102702050403 Annual Cost* After Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$217	\$651	\$2,605	\$1,265	\$1,847	\$1,221	\$443	\$3,053	\$1,018	\$8,846
2	\$224	\$671	\$2,683	\$1,303	\$1,902	\$1,258	\$456	\$3,144	\$1,048	\$9,111
3	\$230	\$691	\$2,764	\$1,342	\$1,959	\$1,295	\$470	\$3,239	\$1,080	\$9,384
4	\$237	\$712	\$2,847	\$1,382	\$2,018	\$1,334	\$484	\$3,336	\$1,112	\$9,666
5	\$244	\$733	\$2,932	\$1,424	\$2,078	\$1,374	\$498	\$3,436	\$1,145	\$9,956
6	\$252	\$755	\$3,020	\$1,466	\$2,141	\$1,416	\$513	\$3,539	\$1,180	\$10,254
7	\$259	\$778	\$3,111	\$1,510	\$2,205	\$1,458	\$529	\$3,645	\$1,215	\$10,562
8	\$267	\$801	\$3,204	\$1,556	\$2,271	\$1,502	\$544	\$3,754	\$1,251	\$10,879
9	\$275	\$825	\$3,300	\$1,602	\$2,339	\$1,547	\$561	\$3,867	\$1,289	\$11,205
10	\$283	\$850	\$3,399	\$1,650	\$2,409	\$1,593	\$578	\$3,983	\$1,328	\$11,542
11	\$292	\$875	\$3,501	\$1,700	\$2,482	\$1,641	\$595	\$4,103	\$1,368	\$11,888
12	\$300	\$901	\$3,606	\$1,751	\$2,556	\$1,690	\$613	\$4,226	\$1,409	\$12,244
13	\$310	\$929	\$3,714	\$1,803	\$2,633	\$1,741	\$631	\$4,352	\$1,451	\$12,612
14	\$319	\$956	\$3,826	\$1,858	\$2,712	\$1,793	\$650	\$4,483	\$1,494	\$12,990
15	\$328	\$985	\$3,940	\$1,913	\$2,793	\$1,847	\$670	\$4,618	\$1,539	\$13,380
16	\$338	\$1,015	\$4,059	\$1,971	\$2,877	\$1,902	\$690	\$4,756	\$1,585	\$13,781
17	\$348	\$1,045	\$4,180	\$2,030	\$2,963	\$1,959	\$710	\$4,899	\$1,633	\$14,195
18	\$359	\$1,076	\$4,306	\$2,091	\$3,052	\$2,018	\$732	\$5,046	\$1,682	\$14,620
19	\$370	\$1,109	\$4,435	\$2,153	\$3,144	\$2,079	\$754	\$5,197	\$1,732	\$15,059
20	\$381	\$1,142	\$4,568	\$2,218	\$3,238	\$2,141	\$776	\$5,353	\$1,784	\$15,511
21	\$392	\$1,176	\$4,705	\$2,285	\$3,335	\$2,205	\$800	\$5,514	\$1,838	\$15,976
22	\$404	\$1,212	\$4,846	\$2,353	\$3,435	\$2,272	\$824	\$5,679	\$1,893	\$16,455
23	\$416	\$1,248	\$4,991	\$2,424	\$3,538	\$2,340	\$848	\$5,849	\$1,950	\$16,949
24	\$428	\$1,285	\$5,141	\$2,496	\$3,644	\$2,410	\$874	\$6,025	\$2,008	\$17,458
25	\$441	\$1,324	\$5,295	\$2,571	\$3,754	\$2,482	\$900	\$6,206	\$2,069	\$17,981
26	\$455	\$1,364	\$5,454	\$2,648	\$3,866	\$2,557	\$927	\$6,392	\$2,131	\$18,521
27	\$468	\$1,404	\$5,618	\$2,728	\$3,982	\$2,633	\$955	\$6,584	\$2,195	\$19,076
28	\$482	\$1,447	\$5,786	\$2,810	\$4,102	\$2,712	\$983	\$6,781	\$2,260	\$19,649
29	\$497	\$1,490	\$5,960	\$2,894	\$4,225	\$2,794	\$1,013	\$6,984	\$2,328	\$20,238
30	\$512	\$1,535	\$6,139	\$2,981	\$4,352	\$2,878	\$1,043	\$7,194	\$2,398	\$20,845
31	\$527	\$1,581	\$6,323	\$3,070	\$4,482	\$2,964	\$1,075	\$7,410	\$2,470	\$21,471
32	\$543	\$1,628	\$6,513	\$3,162	\$4,617	\$3,053	\$1,107	\$7,632	\$2,544	\$22,115
33	\$559	\$1,677	\$6,708	\$3,257	\$4,755	\$3,144	\$1,140	\$7,861	\$2,620	\$22,778
34	\$576	\$1,727	\$6,909	\$3,355	\$4,898	\$3,239	\$1,174	\$8,097	\$2,699	\$23,462
35	\$593	\$1,779	\$7,117	\$3,456	\$5,045	\$3,336	\$1,209	\$8,340	\$2,780	\$24,165
36	\$611	\$1,833	\$7,330	\$3,559	\$5,196	\$3,436	\$1,246	\$8,590	\$2,863	\$24,890
37	\$629	\$1,888	\$7,550	\$3,666	\$5,352	\$3,539	\$1,283	\$8,848	\$2,949	\$25,637
38	\$648	\$1,944	\$7,777	\$3,776	\$5,513	\$3,645	\$1,322	\$9,113	\$3,038	\$26,406
39	\$667	\$2,002	\$8,010	\$3,889	\$5,678	\$3,755	\$1,361	\$9,386	\$3,129	\$27,198
40	\$688	\$2,063	\$8,250	\$4,006	\$5,848	\$3,867	\$1,402	\$9,668	\$3,223	\$28,014

HUC 12 # 102702050501 Annual Cost* Before Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$4,317	\$6,475	\$10,360	\$12,576	\$7,344	\$4,856	\$880	\$12,140	\$4,047	\$41,842
2	\$4,446	\$6,669	\$10,670	\$12,953	\$7,564	\$5,002	\$907	\$12,504	\$4,168	\$43,098
3	\$4,579	\$6,869	\$10,990	\$13,341	\$7,791	\$5,152	\$934	\$12,879	\$4,293	\$44,391
4	\$4,717	\$7,075	\$11,320	\$13,742	\$8,025	\$5,306	\$962	\$13,266	\$4,422	\$45,722
5	\$4,858	\$7,287	\$11,660	\$14,154	\$8,265	\$5,466	\$991	\$13,664	\$4,555	\$47,094
6	\$5,004	\$7,506	\$12,010	\$14,579	\$8,513	\$5,630	\$1,020	\$14,074	\$4,691	\$48,507
7	\$5,154	\$7,731	\$12,370	\$15,016	\$8,769	\$5,798	\$1,051	\$14,496	\$4,832	\$49,962
8	\$5,309	\$7,963	\$12,741	\$15,466	\$9,032	\$5,972	\$1,083	\$14,931	\$4,977	\$51,461
9	\$5,468	\$8,202	\$13,123	\$15,930	\$9,303	\$6,152	\$1,115	\$15,379	\$5,126	\$53,005
10	\$5,632	\$8,448	\$13,517	\$16,408	\$9,582	\$6,336	\$1,149	\$15,840	\$5,280	\$54,595
11	\$5,801	\$8,702	\$13,922	\$16,901	\$9,869	\$6,526	\$1,183	\$16,315	\$5,438	\$56,233
12	\$5,975	\$8,963	\$14,340	\$17,408	\$10,165	\$6,722	\$1,218	\$16,805	\$5,602	\$57,920
13	\$6,154	\$9,231	\$14,770	\$17,930	\$10,470	\$6,924	\$1,255	\$17,309	\$5,770	\$59,657
14	\$6,339	\$9,508	\$15,213	\$18,468	\$10,784	\$7,131	\$1,293	\$17,828	\$5,943	\$61,447
15	\$6,529	\$9,794	\$15,670	\$19,022	\$11,108	\$7,345	\$1,331	\$18,363	\$6,121	\$63,290
16	\$6,725	\$10,087	\$16,140	\$19,592	\$11,441	\$7,566	\$1,371	\$18,914	\$6,305	\$65,189
17	\$6,927	\$10,390	\$16,624	\$20,180	\$11,784	\$7,793	\$1,413	\$19,481	\$6,494	\$67,145
18	\$7,135	\$10,702	\$17,123	\$20,786	\$12,138	\$8,026	\$1,455	\$20,066	\$6,689	\$69,159
19	\$7,349	\$11,023	\$17,637	\$21,409	\$12,502	\$8,267	\$1,499	\$20,668	\$6,889	\$71,234
20	\$7,569	\$11,354	\$18,166	\$22,051	\$12,877	\$8,515	\$1,544	\$21,288	\$7,096	\$73,371
21	\$7,796	\$11,694	\$18,711	\$22,713	\$13,263	\$8,771	\$1,590	\$21,926	\$7,309	\$75,572
22	\$8,030	\$12,045	\$19,272	\$23,394	\$13,661	\$9,034	\$1,638	\$22,584	\$7,528	\$77,839
23	\$8,271	\$12,406	\$19,850	\$24,096	\$14,071	\$9,305	\$1,687	\$23,262	\$7,754	\$80,174
24	\$8,519	\$12,778	\$20,446	\$24,819	\$14,493	\$9,584	\$1,737	\$23,960	\$7,987	\$82,580
25	\$8,775	\$13,162	\$21,059	\$25,564	\$14,928	\$9,871	\$1,789	\$24,678	\$8,226	\$85,057
26	\$9,038	\$13,557	\$21,691	\$26,330	\$15,376	\$10,168	\$1,843	\$25,419	\$8,473	\$87,609
27	\$9,309	\$13,963	\$22,341	\$27,120	\$15,837	\$10,473	\$1,898	\$26,181	\$8,727	\$90,237
28	\$9,588	\$14,382	\$23,012	\$27,934	\$16,312	\$10,787	\$1,955	\$26,967	\$8,989	\$92,944
29	\$9,876	\$14,814	\$23,702	\$28,772	\$16,802	\$11,110	\$2,014	\$27,776	\$9,259	\$95,732
30	\$10,172	\$15,258	\$24,413	\$29,635	\$17,306	\$11,444	\$2,074	\$28,609	\$9,536	\$98,604
31	\$10,477	\$15,716	\$25,145	\$30,524	\$17,825	\$11,787	\$2,137	\$29,467	\$9,822	\$101,563
32	\$10,792	\$16,187	\$25,900	\$31,440	\$18,360	\$12,141	\$2,201	\$30,351	\$10,117	\$104,609
33	\$11,115	\$16,673	\$26,677	\$32,383	\$18,911	\$12,505	\$2,267	\$31,262	\$10,421	\$107,748
34	\$11,449	\$17,173	\$27,477	\$33,355	\$19,478	\$12,880	\$2,335	\$32,200	\$10,733	\$110,980
35	\$11,792	\$17,688	\$28,301	\$34,355	\$20,062	\$13,266	\$2,405	\$33,166	\$11,055	\$114,310
36	\$12,146	\$18,219	\$29,150	\$35,386	\$20,664	\$13,664	\$2,477	\$34,161	\$11,387	\$117,739
37	\$12,510	\$18,766	\$30,025	\$36,448	\$21,284	\$14,074	\$2,551	\$35,186	\$11,729	\$121,271
38	\$12,886	\$19,329	\$30,926	\$37,541	\$21,922	\$14,496	\$2,628	\$36,241	\$12,080	\$124,909
39	\$13,272	\$19,908	\$31,854	\$38,667	\$22,580	\$14,931	\$2,707	\$37,328	\$12,443	\$128,656
40	\$13,670	\$20,506	\$32,809	\$39,827	\$23,258	\$15,379	\$2,788	\$38,448	\$12,816	\$132,516

HUC 12 # 102702050501 Annual Cost* After Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$432	\$1,295	\$5,180	\$2,515	\$3,672	\$2,428	\$880	\$6,070	\$2,023	\$17,589
2	\$445	\$1,334	\$5,335	\$2,591	\$3,782	\$2,501	\$907	\$6,252	\$2,084	\$18,116
3	\$458	\$1,374	\$5,495	\$2,668	\$3,895	\$2,576	\$934	\$6,440	\$2,147	\$18,660
4	\$472	\$1,415	\$5,660	\$2,748	\$4,012	\$2,653	\$962	\$6,633	\$2,211	\$19,220
5	\$486	\$1,457	\$5,830	\$2,831	\$4,133	\$2,733	\$991	\$6,832	\$2,277	\$19,796
6	\$500	\$1,501	\$6,005	\$2,916	\$4,257	\$2,815	\$1,020	\$7,037	\$2,346	\$20,390
7	\$515	\$1,546	\$6,185	\$3,003	\$4,384	\$2,899	\$1,051	\$7,248	\$2,416	\$21,002
8	\$531	\$1,593	\$6,371	\$3,093	\$4,516	\$2,986	\$1,083	\$7,465	\$2,488	\$21,632
9	\$547	\$1,640	\$6,562	\$3,186	\$4,651	\$3,076	\$1,115	\$7,689	\$2,563	\$22,281
10	\$563	\$1,690	\$6,758	\$3,282	\$4,791	\$3,168	\$1,149	\$7,920	\$2,640	\$22,949
11	\$580	\$1,740	\$6,961	\$3,380	\$4,935	\$3,263	\$1,183	\$8,158	\$2,719	\$23,638
12	\$598	\$1,793	\$7,170	\$3,482	\$5,083	\$3,361	\$1,218	\$8,402	\$2,801	\$24,347
13	\$615	\$1,846	\$7,385	\$3,586	\$5,235	\$3,462	\$1,255	\$8,654	\$2,885	\$25,077
14	\$634	\$1,902	\$7,607	\$3,694	\$5,392	\$3,566	\$1,293	\$8,914	\$2,971	\$25,830
15	\$653	\$1,959	\$7,835	\$3,804	\$5,554	\$3,673	\$1,331	\$9,182	\$3,061	\$26,604
16	\$672	\$2,017	\$8,070	\$3,918	\$5,721	\$3,783	\$1,371	\$9,457	\$3,152	\$27,403
17	\$693	\$2,078	\$8,312	\$4,036	\$5,892	\$3,896	\$1,413	\$9,741	\$3,247	\$28,225
18	\$713	\$2,140	\$8,561	\$4,157	\$6,069	\$4,013	\$1,455	\$10,033	\$3,344	\$29,071
19	\$735	\$2,205	\$8,818	\$4,282	\$6,251	\$4,134	\$1,499	\$10,334	\$3,445	\$29,944
20	\$757	\$2,271	\$9,083	\$4,410	\$6,439	\$4,258	\$1,544	\$10,644	\$3,548	\$30,842
21	\$780	\$2,339	\$9,355	\$4,543	\$6,632	\$4,385	\$1,590	\$10,963	\$3,654	\$31,767
22	\$803	\$2,409	\$9,636	\$4,679	\$6,831	\$4,517	\$1,638	\$11,292	\$3,764	\$32,720
23	\$827	\$2,481	\$9,925	\$4,819	\$7,036	\$4,652	\$1,687	\$11,631	\$3,877	\$33,702
24	\$852	\$2,556	\$10,223	\$4,964	\$7,247	\$4,792	\$1,737	\$11,980	\$3,993	\$34,713
25	\$877	\$2,632	\$10,529	\$5,113	\$7,464	\$4,936	\$1,789	\$12,339	\$4,113	\$35,754
26	\$904	\$2,711	\$10,845	\$5,266	\$7,688	\$5,084	\$1,843	\$12,709	\$4,236	\$36,827
27	\$931	\$2,793	\$11,171	\$5,424	\$7,919	\$5,236	\$1,898	\$13,091	\$4,364	\$37,932
28	\$959	\$2,876	\$11,506	\$5,587	\$8,156	\$5,393	\$1,955	\$13,483	\$4,494	\$39,069
29	\$988	\$2,963	\$11,851	\$5,754	\$8,401	\$5,555	\$2,014	\$13,888	\$4,629	\$40,242
30	\$1,017	\$3,052	\$12,207	\$5,927	\$8,653	\$5,722	\$2,074	\$14,305	\$4,768	\$41,449
31	\$1,048	\$3,143	\$12,573	\$6,105	\$8,912	\$5,893	\$2,137	\$14,734	\$4,911	\$42,692
32	\$1,079	\$3,237	\$12,950	\$6,288	\$9,180	\$6,070	\$2,201	\$15,176	\$5,059	\$43,973
33	\$1,112	\$3,335	\$13,338	\$6,477	\$9,455	\$6,252	\$2,267	\$15,631	\$5,210	\$45,292
34	\$1,145	\$3,435	\$13,739	\$6,671	\$9,739	\$6,440	\$2,335	\$16,100	\$5,367	\$46,651
35	\$1,179	\$3,538	\$14,151	\$6,871	\$10,031	\$6,633	\$2,405	\$16,583	\$5,528	\$48,051
36	\$1,215	\$3,644	\$14,575	\$7,077	\$10,332	\$6,832	\$2,477	\$17,080	\$5,693	\$49,492
37	\$1,251	\$3,753	\$15,013	\$7,290	\$10,642	\$7,037	\$2,551	\$17,593	\$5,864	\$50,977
38	\$1,289	\$3,866	\$15,463	\$7,508	\$10,961	\$7,248	\$2,628	\$18,121	\$6,040	\$52,506
39	\$1,327	\$3,982	\$15,927	\$7,733	\$11,290	\$7,466	\$2,707	\$18,664	\$6,221	\$54,081
40	\$1,367	\$4,101	\$16,405	\$7,965	\$11,629	\$7,690	\$2,788	\$19,224	\$6,408	\$55,704

c. Mainstem Targeted Areas plus Riparian Corridors

HUC 12 # 102702050406 Annual Cost* Before Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$2,467	\$3,700	\$5,920	\$7,186	\$4,196	\$2,775	\$503	\$6,937	\$2,312	\$23,909
2	\$2,540	\$3,811	\$6,097	\$7,401	\$4,322	\$2,858	\$518	\$7,145	\$2,382	\$24,627
3	\$2,617	\$3,925	\$6,280	\$7,623	\$4,452	\$2,944	\$534	\$7,359	\$2,453	\$25,365
4	\$2,695	\$4,043	\$6,469	\$7,852	\$4,585	\$3,032	\$550	\$7,580	\$2,527	\$26,126
5	\$2,776	\$4,164	\$6,663	\$8,088	\$4,723	\$3,123	\$566	\$7,808	\$2,603	\$26,910
6	\$2,859	\$4,289	\$6,862	\$8,330	\$4,865	\$3,217	\$583	\$8,042	\$2,681	\$27,717
7	\$2,945	\$4,418	\$7,068	\$8,580	\$5,011	\$3,313	\$601	\$8,283	\$2,761	\$28,549
8	\$3,033	\$4,550	\$7,280	\$8,838	\$5,161	\$3,413	\$619	\$8,532	\$2,844	\$29,405
9	\$3,124	\$4,687	\$7,499	\$9,103	\$5,316	\$3,515	\$637	\$8,788	\$2,929	\$30,288
10	\$3,218	\$4,827	\$7,724	\$9,376	\$5,475	\$3,621	\$656	\$9,051	\$3,017	\$31,196
11	\$3,315	\$4,972	\$7,955	\$9,657	\$5,639	\$3,729	\$676	\$9,323	\$3,108	\$32,132
12	\$3,414	\$5,121	\$8,194	\$9,947	\$5,809	\$3,841	\$696	\$9,602	\$3,201	\$33,096
13	\$3,517	\$5,275	\$8,440	\$10,245	\$5,983	\$3,956	\$717	\$9,891	\$3,297	\$34,089
14	\$3,622	\$5,433	\$8,693	\$10,553	\$6,162	\$4,075	\$739	\$10,187	\$3,396	\$35,112
15	\$3,731	\$5,596	\$8,954	\$10,869	\$6,347	\$4,197	\$761	\$10,493	\$3,498	\$36,165
16	\$3,843	\$5,764	\$9,223	\$11,195	\$6,538	\$4,323	\$784	\$10,808	\$3,603	\$37,250
17	\$3,958	\$5,937	\$9,499	\$11,531	\$6,734	\$4,453	\$807	\$11,132	\$3,711	\$38,367
18	\$4,077	\$6,115	\$9,784	\$11,877	\$6,936	\$4,586	\$831	\$11,466	\$3,822	\$39,518
19	\$4,199	\$6,299	\$10,078	\$12,233	\$7,144	\$4,724	\$856	\$11,810	\$3,937	\$40,704
20	\$4,325	\$6,488	\$10,380	\$12,600	\$7,358	\$4,866	\$882	\$12,164	\$4,055	\$41,925
21	\$4,455	\$6,682	\$10,691	\$12,978	\$7,579	\$5,012	\$908	\$12,529	\$4,176	\$43,183
22	\$4,588	\$6,883	\$11,012	\$13,368	\$7,806	\$5,162	\$936	\$12,905	\$4,302	\$44,478
23	\$4,726	\$7,089	\$11,343	\$13,769	\$8,040	\$5,317	\$964	\$13,292	\$4,431	\$45,813
24	\$4,868	\$7,302	\$11,683	\$14,182	\$8,282	\$5,476	\$993	\$13,691	\$4,564	\$47,187
25	\$5,014	\$7,521	\$12,033	\$14,607	\$8,530	\$5,641	\$1,022	\$14,102	\$4,701	\$48,603
26	\$5,164	\$7,746	\$12,394	\$15,046	\$8,786	\$5,810	\$1,053	\$14,525	\$4,842	\$50,061
27	\$5,319	\$7,979	\$12,766	\$15,497	\$9,050	\$5,984	\$1,085	\$14,960	\$4,987	\$51,563
28	\$5,479	\$8,218	\$13,149	\$15,962	\$9,321	\$6,164	\$1,117	\$15,409	\$5,136	\$53,109
29	\$5,643	\$8,465	\$13,544	\$16,441	\$9,601	\$6,349	\$1,151	\$15,871	\$5,290	\$54,703
30	\$5,812	\$8,719	\$13,950	\$16,934	\$9,889	\$6,539	\$1,185	\$16,348	\$5,449	\$56,344
31	\$5,987	\$8,980	\$14,368	\$17,442	\$10,185	\$6,735	\$1,221	\$16,838	\$5,613	\$58,034
32	\$6,166	\$9,250	\$14,799	\$17,965	\$10,491	\$6,937	\$1,257	\$17,343	\$5,781	\$59,775
33	\$6,351	\$9,527	\$15,243	\$18,504	\$10,806	\$7,145	\$1,295	\$17,863	\$5,954	\$61,568
34	\$6,542	\$9,813	\$15,701	\$19,059	\$11,130	\$7,360	\$1,334	\$18,399	\$6,133	\$63,415
35	\$6,738	\$10,107	\$16,172	\$19,631	\$11,464	\$7,581	\$1,374	\$18,951	\$6,317	\$65,318
36	\$6,940	\$10,411	\$16,657	\$20,220	\$11,808	\$7,808	\$1,415	\$19,520	\$6,507	\$67,277
37	\$7,149	\$10,723	\$17,157	\$20,827	\$12,162	\$8,042	\$1,458	\$20,105	\$6,702	\$69,296
38	\$7,363	\$11,045	\$17,671	\$21,451	\$12,527	\$8,283	\$1,502	\$20,709	\$6,903	\$71,375
39	\$7,584	\$11,376	\$18,201	\$22,095	\$12,903	\$8,532	\$1,547	\$21,330	\$7,110	\$73,516
40	\$7,811	\$11,717	\$18,748	\$22,758	\$13,290	\$8,788	\$1,593	\$21,970	\$7,323	\$75,721

HUC 12 # 102702050406 Annual Cost* After Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$247	\$740	\$2,960	\$1,437	\$2,098	\$1,387	\$503	\$3,469	\$1,156	\$10,050
2	\$254	\$762	\$3,049	\$1,480	\$2,161	\$1,429	\$518	\$3,573	\$1,191	\$10,352
3	\$262	\$785	\$3,140	\$1,525	\$2,226	\$1,472	\$534	\$3,680	\$1,227	\$10,662
4	\$270	\$809	\$3,234	\$1,570	\$2,293	\$1,516	\$550	\$3,790	\$1,263	\$10,982
5	\$278	\$833	\$3,331	\$1,618	\$2,361	\$1,562	\$566	\$3,904	\$1,301	\$11,312
6	\$286	\$858	\$3,431	\$1,666	\$2,432	\$1,608	\$583	\$4,021	\$1,340	\$11,651
7	\$295	\$884	\$3,534	\$1,716	\$2,505	\$1,657	\$601	\$4,142	\$1,381	\$12,001
8	\$303	\$910	\$3,640	\$1,768	\$2,580	\$1,706	\$619	\$4,266	\$1,422	\$12,361
9	\$312	\$937	\$3,749	\$1,821	\$2,658	\$1,758	\$637	\$4,394	\$1,465	\$12,732
10	\$322	\$965	\$3,862	\$1,875	\$2,738	\$1,810	\$656	\$4,526	\$1,509	\$13,113
11	\$331	\$994	\$3,978	\$1,931	\$2,820	\$1,865	\$676	\$4,661	\$1,554	\$13,507
12	\$341	\$1,024	\$4,097	\$1,989	\$2,904	\$1,920	\$696	\$4,801	\$1,600	\$13,912
13	\$352	\$1,055	\$4,220	\$2,049	\$2,991	\$1,978	\$717	\$4,945	\$1,648	\$14,329
14	\$362	\$1,087	\$4,347	\$2,111	\$3,081	\$2,037	\$739	\$5,094	\$1,698	\$14,759
15	\$373	\$1,119	\$4,477	\$2,174	\$3,174	\$2,099	\$761	\$5,246	\$1,749	\$15,202
16	\$384	\$1,153	\$4,611	\$2,239	\$3,269	\$2,162	\$784	\$5,404	\$1,801	\$15,658
17	\$396	\$1,187	\$4,750	\$2,306	\$3,367	\$2,226	\$807	\$5,566	\$1,855	\$16,128
18	\$408	\$1,223	\$4,892	\$2,375	\$3,468	\$2,293	\$831	\$5,733	\$1,911	\$16,612
19	\$420	\$1,260	\$5,039	\$2,447	\$3,572	\$2,362	\$856	\$5,905	\$1,968	\$17,110
20	\$433	\$1,298	\$5,190	\$2,520	\$3,679	\$2,433	\$882	\$6,082	\$2,027	\$17,623
21	\$445	\$1,336	\$5,346	\$2,596	\$3,789	\$2,506	\$908	\$6,265	\$2,088	\$18,152
22	\$459	\$1,377	\$5,506	\$2,674	\$3,903	\$2,581	\$936	\$6,452	\$2,151	\$18,697
23	\$473	\$1,418	\$5,671	\$2,754	\$4,020	\$2,658	\$964	\$6,646	\$2,215	\$19,258
24	\$487	\$1,460	\$5,841	\$2,836	\$4,141	\$2,738	\$993	\$6,845	\$2,282	\$19,835
25	\$501	\$1,504	\$6,017	\$2,921	\$4,265	\$2,820	\$1,022	\$7,051	\$2,350	\$20,430
26	\$516	\$1,549	\$6,197	\$3,009	\$4,393	\$2,905	\$1,053	\$7,262	\$2,421	\$21,043
27	\$532	\$1,596	\$6,383	\$3,099	\$4,525	\$2,992	\$1,085	\$7,480	\$2,493	\$21,675
28	\$548	\$1,644	\$6,575	\$3,192	\$4,661	\$3,082	\$1,117	\$7,705	\$2,568	\$22,325
29	\$564	\$1,693	\$6,772	\$3,288	\$4,800	\$3,174	\$1,151	\$7,936	\$2,645	\$22,995
30	\$581	\$1,744	\$6,975	\$3,387	\$4,944	\$3,270	\$1,185	\$8,174	\$2,725	\$23,684
31	\$599	\$1,796	\$7,184	\$3,488	\$5,093	\$3,368	\$1,221	\$8,419	\$2,806	\$24,395
32	\$617	\$1,850	\$7,400	\$3,593	\$5,245	\$3,469	\$1,257	\$8,672	\$2,891	\$25,127
33	\$635	\$1,905	\$7,622	\$3,701	\$5,403	\$3,573	\$1,295	\$8,932	\$2,977	\$25,881
34	\$654	\$1,963	\$7,850	\$3,812	\$5,565	\$3,680	\$1,334	\$9,200	\$3,067	\$26,657
35	\$674	\$2,021	\$8,086	\$3,926	\$5,732	\$3,790	\$1,374	\$9,476	\$3,159	\$27,457
36	\$694	\$2,082	\$8,328	\$4,044	\$5,904	\$3,904	\$1,415	\$9,760	\$3,253	\$28,280
37	\$715	\$2,145	\$8,578	\$4,165	\$6,081	\$4,021	\$1,458	\$10,053	\$3,351	\$29,129
38	\$736	\$2,209	\$8,836	\$4,290	\$6,263	\$4,142	\$1,502	\$10,354	\$3,451	\$30,003
39	\$758	\$2,275	\$9,101	\$4,419	\$6,451	\$4,266	\$1,547	\$10,665	\$3,555	\$30,903
40	\$781	\$2,343	\$9,374	\$4,552	\$6,645	\$4,394	\$1,593	\$10,985	\$3,662	\$31,830

HUC 12 # 102702050502 Annual Cost* Before Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$2,768	\$4,151	\$6,642	\$8,063	\$4,708	\$3,113	\$564	\$7,784	\$2,595	\$26,827
2	\$2,851	\$4,276	\$6,841	\$8,305	\$4,850	\$3,207	\$581	\$8,017	\$2,672	\$27,632
3	\$2,936	\$4,404	\$7,046	\$8,554	\$4,995	\$3,303	\$599	\$8,258	\$2,753	\$28,461
4	\$3,024	\$4,536	\$7,258	\$8,810	\$5,145	\$3,402	\$617	\$8,505	\$2,835	\$29,315
5	\$3,115	\$4,672	\$7,476	\$9,075	\$5,299	\$3,504	\$635	\$8,761	\$2,920	\$30,194
6	\$3,208	\$4,812	\$7,700	\$9,347	\$5,458	\$3,609	\$654	\$9,023	\$3,008	\$31,100
7	\$3,305	\$4,957	\$7,931	\$9,627	\$5,622	\$3,718	\$674	\$9,294	\$3,098	\$32,033
8	\$3,404	\$5,106	\$8,169	\$9,916	\$5,791	\$3,829	\$694	\$9,573	\$3,191	\$32,994
9	\$3,506	\$5,259	\$8,414	\$10,214	\$5,964	\$3,944	\$715	\$9,860	\$3,287	\$33,984
10	\$3,611	\$5,416	\$8,666	\$10,520	\$6,143	\$4,062	\$736	\$10,156	\$3,385	\$35,003
11	\$3,719	\$5,579	\$8,926	\$10,836	\$6,328	\$4,184	\$758	\$10,460	\$3,487	\$36,053
12	\$3,831	\$5,746	\$9,194	\$11,161	\$6,517	\$4,310	\$781	\$10,774	\$3,591	\$37,135
13	\$3,946	\$5,919	\$9,470	\$11,496	\$6,713	\$4,439	\$805	\$11,098	\$3,699	\$38,249
14	\$4,064	\$6,096	\$9,754	\$11,840	\$6,914	\$4,572	\$829	\$11,430	\$3,810	\$39,396
15	\$4,186	\$6,279	\$10,047	\$12,196	\$7,122	\$4,709	\$854	\$11,773	\$3,924	\$40,578
16	\$4,312	\$6,468	\$10,348	\$12,562	\$7,335	\$4,851	\$879	\$12,127	\$4,042	\$41,796
17	\$4,441	\$6,662	\$10,658	\$12,938	\$7,556	\$4,996	\$906	\$12,490	\$4,163	\$43,050
18	\$4,574	\$6,861	\$10,978	\$13,327	\$7,782	\$5,146	\$933	\$12,865	\$4,288	\$44,341
19	\$4,711	\$7,067	\$11,308	\$13,726	\$8,016	\$5,300	\$961	\$13,251	\$4,417	\$45,671
20	\$4,853	\$7,279	\$11,647	\$14,138	\$8,256	\$5,459	\$990	\$13,649	\$4,550	\$47,041
21	\$4,998	\$7,498	\$11,996	\$14,562	\$8,504	\$5,623	\$1,019	\$14,058	\$4,686	\$48,453
22	\$5,148	\$7,723	\$12,356	\$14,999	\$8,759	\$5,792	\$1,050	\$14,480	\$4,827	\$49,906
23	\$5,303	\$7,954	\$12,727	\$15,449	\$9,022	\$5,966	\$1,081	\$14,914	\$4,971	\$51,403
24	\$5,462	\$8,193	\$13,109	\$15,913	\$9,292	\$6,145	\$1,114	\$15,362	\$5,121	\$52,945
25	\$5,626	\$8,439	\$13,502	\$16,390	\$9,571	\$6,329	\$1,147	\$15,822	\$5,274	\$54,534
26	\$5,795	\$8,692	\$13,907	\$16,882	\$9,858	\$6,519	\$1,182	\$16,297	\$5,432	\$56,170
27	\$5,968	\$8,953	\$14,324	\$17,388	\$10,154	\$6,714	\$1,217	\$16,786	\$5,595	\$57,855
28	\$6,147	\$9,221	\$14,754	\$17,910	\$10,459	\$6,916	\$1,254	\$17,290	\$5,763	\$59,591
29	\$6,332	\$9,498	\$15,196	\$18,447	\$10,772	\$7,123	\$1,291	\$17,808	\$5,936	\$61,378
30	\$6,522	\$9,783	\$15,652	\$19,000	\$11,096	\$7,337	\$1,330	\$18,343	\$6,114	\$63,220
31	\$6,717	\$10,076	\$16,122	\$19,570	\$11,428	\$7,557	\$1,370	\$18,893	\$6,298	\$65,116
32	\$6,919	\$10,378	\$16,606	\$20,158	\$11,771	\$7,784	\$1,411	\$19,460	\$6,487	\$67,070
33	\$7,127	\$10,690	\$17,104	\$20,762	\$12,124	\$8,017	\$1,453	\$20,043	\$6,681	\$69,082
34	\$7,340	\$11,011	\$17,617	\$21,385	\$12,488	\$8,258	\$1,497	\$20,645	\$6,882	\$71,154
35	\$7,561	\$11,341	\$18,145	\$22,027	\$12,863	\$8,506	\$1,542	\$21,264	\$7,088	\$73,289
36	\$7,787	\$11,681	\$18,690	\$22,688	\$13,249	\$8,761	\$1,588	\$21,902	\$7,301	\$75,488
37	\$8,021	\$12,031	\$19,250	\$23,368	\$13,646	\$9,024	\$1,636	\$22,559	\$7,520	\$77,752
38	\$8,262	\$12,392	\$19,828	\$24,069	\$14,055	\$9,294	\$1,685	\$23,236	\$7,745	\$80,085
39	\$8,509	\$12,764	\$20,423	\$24,791	\$14,477	\$9,573	\$1,735	\$23,933	\$7,978	\$82,487
40	\$8,765	\$13,147	\$21,035	\$25,535	\$14,911	\$9,860	\$1,787	\$24,651	\$8,217	\$84,962

HUC 12 # 102702050502 Annual Cost* After Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$277	\$830	\$3,321	\$1,613	\$2,354	\$1,557	\$564	\$3,892	\$1,297	\$11,277
2	\$285	\$855	\$3,421	\$1,661	\$2,425	\$1,603	\$581	\$4,009	\$1,336	\$11,615
3	\$294	\$881	\$3,523	\$1,711	\$2,498	\$1,652	\$599	\$4,129	\$1,376	\$11,964
4	\$302	\$907	\$3,629	\$1,762	\$2,572	\$1,701	\$617	\$4,253	\$1,418	\$12,323
5	\$311	\$934	\$3,738	\$1,815	\$2,650	\$1,752	\$635	\$4,380	\$1,460	\$12,692
6	\$321	\$962	\$3,850	\$1,869	\$2,729	\$1,805	\$654	\$4,512	\$1,504	\$13,073
7	\$330	\$991	\$3,965	\$1,925	\$2,811	\$1,859	\$674	\$4,647	\$1,549	\$13,465
8	\$340	\$1,021	\$4,084	\$1,983	\$2,895	\$1,915	\$694	\$4,786	\$1,595	\$13,869
9	\$351	\$1,052	\$4,207	\$2,043	\$2,982	\$1,972	\$715	\$4,930	\$1,643	\$14,285
10	\$361	\$1,083	\$4,333	\$2,104	\$3,072	\$2,031	\$736	\$5,078	\$1,693	\$14,714
11	\$372	\$1,116	\$4,463	\$2,167	\$3,164	\$2,092	\$758	\$5,230	\$1,743	\$15,155
12	\$383	\$1,149	\$4,597	\$2,232	\$3,259	\$2,155	\$781	\$5,387	\$1,796	\$15,610
13	\$395	\$1,184	\$4,735	\$2,299	\$3,356	\$2,220	\$805	\$5,549	\$1,850	\$16,078
14	\$406	\$1,219	\$4,877	\$2,368	\$3,457	\$2,286	\$829	\$5,715	\$1,905	\$16,560
15	\$419	\$1,256	\$5,023	\$2,439	\$3,561	\$2,355	\$854	\$5,887	\$1,962	\$17,057
16	\$431	\$1,294	\$5,174	\$2,512	\$3,668	\$2,425	\$879	\$6,063	\$2,021	\$17,569
17	\$444	\$1,332	\$5,329	\$2,588	\$3,778	\$2,498	\$906	\$6,245	\$2,082	\$18,096
18	\$457	\$1,372	\$5,489	\$2,665	\$3,891	\$2,573	\$933	\$6,433	\$2,144	\$18,639
19	\$471	\$1,413	\$5,654	\$2,745	\$4,008	\$2,650	\$961	\$6,626	\$2,209	\$19,198
20	\$485	\$1,456	\$5,823	\$2,828	\$4,128	\$2,730	\$990	\$6,824	\$2,275	\$19,774
21	\$500	\$1,500	\$5,998	\$2,912	\$4,252	\$2,812	\$1,019	\$7,029	\$2,343	\$20,367
22	\$515	\$1,545	\$6,178	\$3,000	\$4,379	\$2,896	\$1,050	\$7,240	\$2,413	\$20,978
23	\$530	\$1,591	\$6,363	\$3,090	\$4,511	\$2,983	\$1,081	\$7,457	\$2,486	\$21,608
24	\$546	\$1,639	\$6,554	\$3,183	\$4,646	\$3,072	\$1,114	\$7,681	\$2,560	\$22,256
25	\$563	\$1,688	\$6,751	\$3,278	\$4,786	\$3,164	\$1,147	\$7,911	\$2,637	\$22,924
26	\$579	\$1,738	\$6,953	\$3,376	\$4,929	\$3,259	\$1,182	\$8,149	\$2,716	\$23,611
27	\$597	\$1,791	\$7,162	\$3,478	\$5,077	\$3,357	\$1,217	\$8,393	\$2,798	\$24,320
28	\$615	\$1,844	\$7,377	\$3,582	\$5,229	\$3,458	\$1,254	\$8,645	\$2,882	\$25,049
29	\$633	\$1,900	\$7,598	\$3,689	\$5,386	\$3,562	\$1,291	\$8,904	\$2,968	\$25,801
30	\$652	\$1,957	\$7,826	\$3,800	\$5,548	\$3,669	\$1,330	\$9,171	\$3,057	\$26,575
31	\$672	\$2,015	\$8,061	\$3,914	\$5,714	\$3,779	\$1,370	\$9,446	\$3,149	\$27,372
32	\$692	\$2,076	\$8,303	\$4,032	\$5,886	\$3,892	\$1,411	\$9,730	\$3,243	\$28,193
33	\$713	\$2,138	\$8,552	\$4,152	\$6,062	\$4,009	\$1,453	\$10,022	\$3,341	\$29,039
34	\$734	\$2,202	\$8,808	\$4,277	\$6,244	\$4,129	\$1,497	\$10,322	\$3,441	\$29,910
35	\$756	\$2,268	\$9,073	\$4,405	\$6,431	\$4,253	\$1,542	\$10,632	\$3,544	\$30,807
36	\$779	\$2,336	\$9,345	\$4,538	\$6,624	\$4,380	\$1,588	\$10,951	\$3,650	\$31,732
37	\$802	\$2,406	\$9,625	\$4,674	\$6,823	\$4,512	\$1,636	\$11,280	\$3,760	\$32,684
38	\$826	\$2,478	\$9,914	\$4,814	\$7,028	\$4,647	\$1,685	\$11,618	\$3,873	\$33,664
39	\$851	\$2,553	\$10,211	\$4,958	\$7,239	\$4,787	\$1,735	\$11,966	\$3,989	\$34,674
40	\$876	\$2,629	\$10,518	\$5,107	\$7,456	\$4,930	\$1,787	\$12,325	\$4,108	\$35,714

HUC 12 # 102702050503 Annual Cost* Before Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$2,467	\$3,700	\$5,920	\$7,186	\$4,196	\$2,775	\$503	\$6,937	\$2,312	\$23,909
2	\$2,540	\$3,811	\$6,097	\$7,401	\$4,322	\$2,858	\$518	\$7,145	\$2,382	\$24,627
3	\$2,617	\$3,925	\$6,280	\$7,623	\$4,452	\$2,944	\$534	\$7,359	\$2,453	\$25,365
4	\$2,695	\$4,043	\$6,469	\$7,852	\$4,585	\$3,032	\$550	\$7,580	\$2,527	\$26,126
5	\$2,776	\$4,164	\$6,663	\$8,088	\$4,723	\$3,123	\$566	\$7,808	\$2,603	\$26,910
6	\$2,859	\$4,289	\$6,862	\$8,330	\$4,865	\$3,217	\$583	\$8,042	\$2,681	\$27,717
7	\$2,945	\$4,418	\$7,068	\$8,580	\$5,011	\$3,313	\$601	\$8,283	\$2,761	\$28,549
8	\$3,033	\$4,550	\$7,280	\$8,838	\$5,161	\$3,413	\$619	\$8,532	\$2,844	\$29,405
9	\$3,124	\$4,687	\$7,499	\$9,103	\$5,316	\$3,515	\$637	\$8,788	\$2,929	\$30,288
10	\$3,218	\$4,827	\$7,724	\$9,376	\$5,475	\$3,621	\$656	\$9,051	\$3,017	\$31,196
11	\$3,315	\$4,972	\$7,955	\$9,657	\$5,639	\$3,729	\$676	\$9,323	\$3,108	\$32,132
12	\$3,414	\$5,121	\$8,194	\$9,947	\$5,809	\$3,841	\$696	\$9,602	\$3,201	\$33,096
13	\$3,517	\$5,275	\$8,440	\$10,245	\$5,983	\$3,956	\$717	\$9,891	\$3,297	\$34,089
14	\$3,622	\$5,433	\$8,693	\$10,553	\$6,162	\$4,075	\$739	\$10,187	\$3,396	\$35,112
15	\$3,731	\$5,596	\$8,954	\$10,869	\$6,347	\$4,197	\$761	\$10,493	\$3,498	\$36,165
16	\$3,843	\$5,764	\$9,223	\$11,195	\$6,538	\$4,323	\$784	\$10,808	\$3,603	\$37,250
17	\$3,958	\$5,937	\$9,499	\$11,531	\$6,734	\$4,453	\$807	\$11,132	\$3,711	\$38,367
18	\$4,077	\$6,115	\$9,784	\$11,877	\$6,936	\$4,586	\$831	\$11,466	\$3,822	\$39,518
19	\$4,199	\$6,299	\$10,078	\$12,233	\$7,144	\$4,724	\$856	\$11,810	\$3,937	\$40,704
20	\$4,325	\$6,488	\$10,380	\$12,600	\$7,358	\$4,866	\$882	\$12,164	\$4,055	\$41,925
21	\$4,455	\$6,682	\$10,691	\$12,978	\$7,579	\$5,012	\$908	\$12,529	\$4,176	\$43,183
22	\$4,588	\$6,883	\$11,012	\$13,368	\$7,806	\$5,162	\$936	\$12,905	\$4,302	\$44,478
23	\$4,726	\$7,089	\$11,343	\$13,769	\$8,040	\$5,317	\$964	\$13,292	\$4,431	\$45,813
24	\$4,868	\$7,302	\$11,683	\$14,182	\$8,282	\$5,476	\$993	\$13,691	\$4,564	\$47,187
25	\$5,014	\$7,521	\$12,033	\$14,607	\$8,530	\$5,641	\$1,022	\$14,102	\$4,701	\$48,603
26	\$5,164	\$7,746	\$12,394	\$15,046	\$8,786	\$5,810	\$1,053	\$14,525	\$4,842	\$50,061
27	\$5,319	\$7,979	\$12,766	\$15,497	\$9,050	\$5,984	\$1,085	\$14,960	\$4,987	\$51,563
28	\$5,479	\$8,218	\$13,149	\$15,962	\$9,321	\$6,164	\$1,117	\$15,409	\$5,136	\$53,109
29	\$5,643	\$8,465	\$13,544	\$16,441	\$9,601	\$6,349	\$1,151	\$15,871	\$5,290	\$54,703
30	\$5,812	\$8,719	\$13,950	\$16,934	\$9,889	\$6,539	\$1,185	\$16,348	\$5,449	\$56,344
31	\$5,987	\$8,980	\$14,368	\$17,442	\$10,185	\$6,735	\$1,221	\$16,838	\$5,613	\$58,034
32	\$6,166	\$9,250	\$14,799	\$17,965	\$10,491	\$6,937	\$1,257	\$17,343	\$5,781	\$59,775
33	\$6,351	\$9,527	\$15,243	\$18,504	\$10,806	\$7,145	\$1,295	\$17,863	\$5,954	\$61,568
34	\$6,542	\$9,813	\$15,701	\$19,059	\$11,130	\$7,360	\$1,334	\$18,399	\$6,133	\$63,415
35	\$6,738	\$10,107	\$16,172	\$19,631	\$11,464	\$7,581	\$1,374	\$18,951	\$6,317	\$65,318
36	\$6,940	\$10,411	\$16,657	\$20,220	\$11,808	\$7,808	\$1,415	\$19,520	\$6,507	\$67,277
37	\$7,149	\$10,723	\$17,157	\$20,827	\$12,162	\$8,042	\$1,458	\$20,105	\$6,702	\$69,296
38	\$7,363	\$11,045	\$17,671	\$21,451	\$12,527	\$8,283	\$1,502	\$20,709	\$6,903	\$71,375
39	\$7,584	\$11,376	\$18,201	\$22,095	\$12,903	\$8,532	\$1,547	\$21,330	\$7,110	\$73,516
40	\$7,811	\$11,717	\$18,748	\$22,758	\$13,290	\$8,788	\$1,593	\$21,970	\$7,323	\$75,721

HUC 12 # 102702050503 Annual Cost* After Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$247	\$740	\$2,960	\$1,437	\$2,098	\$1,387	\$503	\$3,469	\$1,156	\$10,050
2	\$254	\$762	\$3,049	\$1,480	\$2,161	\$1,429	\$518	\$3,573	\$1,191	\$10,352
3	\$262	\$785	\$3,140	\$1,525	\$2,226	\$1,472	\$534	\$3,680	\$1,227	\$10,662
4	\$270	\$809	\$3,234	\$1,570	\$2,293	\$1,516	\$550	\$3,790	\$1,263	\$10,982
5	\$278	\$833	\$3,331	\$1,618	\$2,361	\$1,562	\$566	\$3,904	\$1,301	\$11,312
6	\$286	\$858	\$3,431	\$1,666	\$2,432	\$1,608	\$583	\$4,021	\$1,340	\$11,651
7	\$295	\$884	\$3,534	\$1,716	\$2,505	\$1,657	\$601	\$4,142	\$1,381	\$12,001
8	\$303	\$910	\$3,640	\$1,768	\$2,580	\$1,706	\$619	\$4,266	\$1,422	\$12,361
9	\$312	\$937	\$3,749	\$1,821	\$2,658	\$1,758	\$637	\$4,394	\$1,465	\$12,732
10	\$322	\$965	\$3,862	\$1,875	\$2,738	\$1,810	\$656	\$4,526	\$1,509	\$13,113
11	\$331	\$994	\$3,978	\$1,931	\$2,820	\$1,865	\$676	\$4,661	\$1,554	\$13,507
12	\$341	\$1,024	\$4,097	\$1,989	\$2,904	\$1,920	\$696	\$4,801	\$1,600	\$13,912
13	\$352	\$1,055	\$4,220	\$2,049	\$2,991	\$1,978	\$717	\$4,945	\$1,648	\$14,329
14	\$362	\$1,087	\$4,347	\$2,111	\$3,081	\$2,037	\$739	\$5,094	\$1,698	\$14,759
15	\$373	\$1,119	\$4,477	\$2,174	\$3,174	\$2,099	\$761	\$5,246	\$1,749	\$15,202
16	\$384	\$1,153	\$4,611	\$2,239	\$3,269	\$2,162	\$784	\$5,404	\$1,801	\$15,658
17	\$396	\$1,187	\$4,750	\$2,306	\$3,367	\$2,226	\$807	\$5,566	\$1,855	\$16,128
18	\$408	\$1,223	\$4,892	\$2,375	\$3,468	\$2,293	\$831	\$5,733	\$1,911	\$16,612
19	\$420	\$1,260	\$5,039	\$2,447	\$3,572	\$2,362	\$856	\$5,905	\$1,968	\$17,110
20	\$433	\$1,298	\$5,190	\$2,520	\$3,679	\$2,433	\$882	\$6,082	\$2,027	\$17,623
21	\$445	\$1,336	\$5,346	\$2,596	\$3,789	\$2,506	\$908	\$6,265	\$2,088	\$18,152
22	\$459	\$1,377	\$5,506	\$2,674	\$3,903	\$2,581	\$936	\$6,452	\$2,151	\$18,697
23	\$473	\$1,418	\$5,671	\$2,754	\$4,020	\$2,658	\$964	\$6,646	\$2,215	\$19,258
24	\$487	\$1,460	\$5,841	\$2,836	\$4,141	\$2,738	\$993	\$6,845	\$2,282	\$19,835
25	\$501	\$1,504	\$6,017	\$2,921	\$4,265	\$2,820	\$1,022	\$7,051	\$2,350	\$20,430
26	\$516	\$1,549	\$6,197	\$3,009	\$4,393	\$2,905	\$1,053	\$7,262	\$2,421	\$21,043
27	\$532	\$1,596	\$6,383	\$3,099	\$4,525	\$2,992	\$1,085	\$7,480	\$2,493	\$21,675
28	\$548	\$1,644	\$6,575	\$3,192	\$4,661	\$3,082	\$1,117	\$7,705	\$2,568	\$22,325
29	\$564	\$1,693	\$6,772	\$3,288	\$4,800	\$3,174	\$1,151	\$7,936	\$2,645	\$22,995
30	\$581	\$1,744	\$6,975	\$3,387	\$4,944	\$3,270	\$1,185	\$8,174	\$2,725	\$23,684
31	\$599	\$1,796	\$7,184	\$3,488	\$5,093	\$3,368	\$1,221	\$8,419	\$2,806	\$24,395
32	\$617	\$1,850	\$7,400	\$3,593	\$5,245	\$3,469	\$1,257	\$8,672	\$2,891	\$25,127
33	\$635	\$1,905	\$7,622	\$3,701	\$5,403	\$3,573	\$1,295	\$8,932	\$2,977	\$25,881
34	\$654	\$1,963	\$7,850	\$3,812	\$5,565	\$3,680	\$1,334	\$9,200	\$3,067	\$26,657
35	\$674	\$2,021	\$8,086	\$3,926	\$5,732	\$3,790	\$1,374	\$9,476	\$3,159	\$27,457
36	\$694	\$2,082	\$8,328	\$4,044	\$5,904	\$3,904	\$1,415	\$9,760	\$3,253	\$28,280
37	\$715	\$2,145	\$8,578	\$4,165	\$6,081	\$4,021	\$1,458	\$10,053	\$3,351	\$29,129
38	\$736	\$2,209	\$8,836	\$4,290	\$6,263	\$4,142	\$1,502	\$10,354	\$3,451	\$30,003
39	\$758	\$2,275	\$9,101	\$4,419	\$6,451	\$4,266	\$1,547	\$10,665	\$3,555	\$30,903
40	\$781	\$2,343	\$9,374	\$4,552	\$6,645	\$4,394	\$1,593	\$10,985	\$3,662	\$31,830

HUC 12 # 102702050505 Annual Cost* Before Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$1,787	\$2,680	\$4,288	\$5,205	\$3,040	\$2,010	\$364	\$5,025	\$1,675	\$17,319
2	\$1,840	\$2,760	\$4,417	\$5,361	\$3,131	\$2,070	\$375	\$5,176	\$1,725	\$17,839
3	\$1,895	\$2,843	\$4,549	\$5,522	\$3,225	\$2,132	\$387	\$5,331	\$1,777	\$18,374
4	\$1,952	\$2,929	\$4,686	\$5,688	\$3,322	\$2,196	\$398	\$5,491	\$1,830	\$18,925
5	\$2,011	\$3,016	\$4,826	\$5,859	\$3,421	\$2,262	\$410	\$5,656	\$1,885	\$19,493
6	\$2,071	\$3,107	\$4,971	\$6,034	\$3,524	\$2,330	\$422	\$5,825	\$1,942	\$20,078
7	\$2,133	\$3,200	\$5,120	\$6,215	\$3,630	\$2,400	\$435	\$6,000	\$2,000	\$20,680
8	\$2,197	\$3,296	\$5,274	\$6,402	\$3,738	\$2,472	\$448	\$6,180	\$2,060	\$21,300
9	\$2,263	\$3,395	\$5,432	\$6,594	\$3,851	\$2,546	\$462	\$6,366	\$2,122	\$21,939
10	\$2,331	\$3,497	\$5,595	\$6,792	\$3,966	\$2,623	\$475	\$6,556	\$2,185	\$22,598
11	\$2,401	\$3,602	\$5,763	\$6,995	\$4,085	\$2,701	\$490	\$6,753	\$2,251	\$23,276
12	\$2,473	\$3,710	\$5,936	\$7,205	\$4,208	\$2,782	\$504	\$6,956	\$2,319	\$23,974
13	\$2,547	\$3,821	\$6,114	\$7,421	\$4,334	\$2,866	\$519	\$7,164	\$2,388	\$24,693
14	\$2,624	\$3,936	\$6,297	\$7,644	\$4,464	\$2,952	\$535	\$7,379	\$2,460	\$25,434
15	\$2,702	\$4,054	\$6,486	\$7,873	\$4,598	\$3,040	\$551	\$7,601	\$2,534	\$26,197
16	\$2,784	\$4,175	\$6,681	\$8,110	\$4,736	\$3,132	\$568	\$7,829	\$2,610	\$26,983
17	\$2,867	\$4,301	\$6,881	\$8,353	\$4,878	\$3,225	\$585	\$8,064	\$2,688	\$27,792
18	\$2,953	\$4,430	\$7,087	\$8,603	\$5,024	\$3,322	\$602	\$8,306	\$2,769	\$28,626
19	\$3,042	\$4,563	\$7,300	\$8,862	\$5,175	\$3,422	\$620	\$8,555	\$2,852	\$29,485
20	\$3,133	\$4,699	\$7,519	\$9,127	\$5,330	\$3,525	\$639	\$8,811	\$2,937	\$30,369
21	\$3,227	\$4,840	\$7,745	\$9,401	\$5,490	\$3,630	\$658	\$9,076	\$3,025	\$31,280
22	\$3,324	\$4,986	\$7,977	\$9,683	\$5,655	\$3,739	\$678	\$9,348	\$3,116	\$32,219
23	\$3,423	\$5,135	\$8,216	\$9,974	\$5,824	\$3,851	\$698	\$9,628	\$3,209	\$33,185
24	\$3,526	\$5,289	\$8,463	\$10,273	\$5,999	\$3,967	\$719	\$9,917	\$3,306	\$34,181
25	\$3,632	\$5,448	\$8,717	\$10,581	\$6,179	\$4,086	\$741	\$10,215	\$3,405	\$35,206
26	\$3,741	\$5,611	\$8,978	\$10,899	\$6,364	\$4,208	\$763	\$10,521	\$3,507	\$36,263
27	\$3,853	\$5,780	\$9,247	\$11,226	\$6,555	\$4,335	\$786	\$10,837	\$3,612	\$37,351
28	\$3,969	\$5,953	\$9,525	\$11,562	\$6,752	\$4,465	\$809	\$11,162	\$3,721	\$38,471
29	\$4,088	\$6,132	\$9,811	\$11,909	\$6,955	\$4,599	\$834	\$11,497	\$3,832	\$39,625
30	\$4,210	\$6,316	\$10,105	\$12,266	\$7,163	\$4,737	\$859	\$11,842	\$3,947	\$40,814
31	\$4,337	\$6,505	\$10,408	\$12,634	\$7,378	\$4,879	\$884	\$12,197	\$4,066	\$42,038
32	\$4,467	\$6,700	\$10,720	\$13,013	\$7,599	\$5,025	\$911	\$12,563	\$4,188	\$43,299
33	\$4,601	\$6,901	\$11,042	\$13,404	\$7,827	\$5,176	\$938	\$12,940	\$4,313	\$44,598
34	\$4,739	\$7,108	\$11,373	\$13,806	\$8,062	\$5,331	\$966	\$13,328	\$4,443	\$45,936
35	\$4,881	\$7,322	\$11,714	\$14,220	\$8,304	\$5,491	\$995	\$13,728	\$4,576	\$47,315
36	\$5,027	\$7,541	\$12,066	\$14,647	\$8,553	\$5,656	\$1,025	\$14,140	\$4,713	\$48,734
37	\$5,178	\$7,767	\$12,428	\$15,086	\$8,810	\$5,826	\$1,056	\$14,564	\$4,855	\$50,196
38	\$5,334	\$8,000	\$12,801	\$15,539	\$9,074	\$6,000	\$1,088	\$15,001	\$5,000	\$51,702
39	\$5,494	\$8,240	\$13,185	\$16,005	\$9,346	\$6,180	\$1,120	\$15,451	\$5,150	\$53,253
40	\$5,658	\$8,488	\$13,580	\$16,485	\$9,627	\$6,366	\$1,154	\$15,914	\$5,305	\$54,850

HUC 12 # 102702050505 Annual Cost* After Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$179	\$536	\$2,144	\$1,041	\$1,520	\$1,005	\$364	\$2,513	\$838	\$7,280
2	\$184	\$552	\$2,208	\$1,072	\$1,565	\$1,035	\$375	\$2,588	\$863	\$7,499
3	\$190	\$569	\$2,275	\$1,104	\$1,612	\$1,066	\$387	\$2,666	\$889	\$7,724
4	\$195	\$586	\$2,343	\$1,138	\$1,661	\$1,098	\$398	\$2,745	\$915	\$7,955
5	\$201	\$603	\$2,413	\$1,172	\$1,711	\$1,131	\$410	\$2,828	\$943	\$8,194
6	\$207	\$621	\$2,485	\$1,207	\$1,762	\$1,165	\$422	\$2,913	\$971	\$8,440
7	\$213	\$640	\$2,560	\$1,243	\$1,815	\$1,200	\$435	\$3,000	\$1,000	\$8,693
8	\$220	\$659	\$2,637	\$1,280	\$1,869	\$1,236	\$448	\$3,090	\$1,030	\$8,954
9	\$226	\$679	\$2,716	\$1,319	\$1,925	\$1,273	\$462	\$3,183	\$1,061	\$9,222
10	\$233	\$699	\$2,797	\$1,358	\$1,983	\$1,311	\$475	\$3,278	\$1,093	\$9,499
11	\$240	\$720	\$2,881	\$1,399	\$2,043	\$1,351	\$490	\$3,377	\$1,126	\$9,784
12	\$247	\$742	\$2,968	\$1,441	\$2,104	\$1,391	\$504	\$3,478	\$1,159	\$10,078
13	\$255	\$764	\$3,057	\$1,484	\$2,167	\$1,433	\$519	\$3,582	\$1,194	\$10,380
14	\$262	\$787	\$3,149	\$1,529	\$2,232	\$1,476	\$535	\$3,690	\$1,230	\$10,691
15	\$270	\$811	\$3,243	\$1,575	\$2,299	\$1,520	\$551	\$3,800	\$1,267	\$11,012
16	\$278	\$835	\$3,340	\$1,622	\$2,368	\$1,566	\$568	\$3,914	\$1,305	\$11,342
17	\$287	\$860	\$3,440	\$1,671	\$2,439	\$1,613	\$585	\$4,032	\$1,344	\$11,683
18	\$295	\$886	\$3,544	\$1,721	\$2,512	\$1,661	\$602	\$4,153	\$1,384	\$12,033
19	\$304	\$913	\$3,650	\$1,772	\$2,587	\$1,711	\$620	\$4,277	\$1,426	\$12,394
20	\$313	\$940	\$3,760	\$1,825	\$2,665	\$1,762	\$639	\$4,406	\$1,469	\$12,766
21	\$323	\$968	\$3,872	\$1,880	\$2,745	\$1,815	\$658	\$4,538	\$1,513	\$13,149
22	\$332	\$997	\$3,988	\$1,937	\$2,827	\$1,870	\$678	\$4,674	\$1,558	\$13,543
23	\$342	\$1,027	\$4,108	\$1,995	\$2,912	\$1,926	\$698	\$4,814	\$1,605	\$13,950
24	\$353	\$1,058	\$4,231	\$2,055	\$3,000	\$1,983	\$719	\$4,959	\$1,653	\$14,368
25	\$363	\$1,090	\$4,358	\$2,116	\$3,089	\$2,043	\$741	\$5,107	\$1,702	\$14,799
26	\$374	\$1,122	\$4,489	\$2,180	\$3,182	\$2,104	\$763	\$5,261	\$1,754	\$15,243
27	\$385	\$1,156	\$4,624	\$2,245	\$3,278	\$2,167	\$786	\$5,418	\$1,806	\$15,700
28	\$397	\$1,191	\$4,762	\$2,312	\$3,376	\$2,232	\$809	\$5,581	\$1,860	\$16,171
29	\$409	\$1,226	\$4,905	\$2,382	\$3,477	\$2,299	\$834	\$5,748	\$1,916	\$16,657
30	\$421	\$1,263	\$5,052	\$2,453	\$3,582	\$2,368	\$859	\$5,921	\$1,974	\$17,156
31	\$434	\$1,301	\$5,204	\$2,527	\$3,689	\$2,439	\$884	\$6,098	\$2,033	\$17,671
32	\$447	\$1,340	\$5,360	\$2,603	\$3,800	\$2,513	\$911	\$6,281	\$2,094	\$18,201
33	\$460	\$1,380	\$5,521	\$2,681	\$3,914	\$2,588	\$938	\$6,470	\$2,157	\$18,747
34	\$474	\$1,422	\$5,687	\$2,761	\$4,031	\$2,666	\$966	\$6,664	\$2,221	\$19,310
35	\$488	\$1,464	\$5,857	\$2,844	\$4,152	\$2,746	\$995	\$6,864	\$2,288	\$19,889
36	\$503	\$1,508	\$6,033	\$2,929	\$4,277	\$2,828	\$1,025	\$7,070	\$2,357	\$20,486
37	\$518	\$1,553	\$6,214	\$3,017	\$4,405	\$2,913	\$1,056	\$7,282	\$2,427	\$21,100
38	\$533	\$1,600	\$6,400	\$3,108	\$4,537	\$3,000	\$1,088	\$7,500	\$2,500	\$21,733
39	\$549	\$1,648	\$6,592	\$3,201	\$4,673	\$3,090	\$1,120	\$7,725	\$2,575	\$22,385
40	\$566	\$1,698	\$6,790	\$3,297	\$4,813	\$3,183	\$1,154	\$7,957	\$2,652	\$23,057

HUC 12 # 102702050506 Annual Cost* Before Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$1,177	\$1,766	\$2,825	\$3,430	\$2,003	\$1,324	\$240	\$3,311	\$1,104	\$11,411
2	\$1,212	\$1,819	\$2,910	\$3,532	\$2,063	\$1,364	\$247	\$3,410	\$1,137	\$11,753
3	\$1,249	\$1,873	\$2,997	\$3,638	\$2,125	\$1,405	\$255	\$3,512	\$1,171	\$12,106
4	\$1,286	\$1,929	\$3,087	\$3,748	\$2,188	\$1,447	\$262	\$3,618	\$1,206	\$12,469
5	\$1,325	\$1,987	\$3,180	\$3,860	\$2,254	\$1,491	\$270	\$3,726	\$1,242	\$12,843
6	\$1,365	\$2,047	\$3,275	\$3,976	\$2,322	\$1,535	\$278	\$3,838	\$1,279	\$13,228
7	\$1,406	\$2,108	\$3,373	\$4,095	\$2,391	\$1,581	\$287	\$3,953	\$1,318	\$13,625
8	\$1,448	\$2,172	\$3,475	\$4,218	\$2,463	\$1,629	\$295	\$4,072	\$1,357	\$14,034
9	\$1,491	\$2,237	\$3,579	\$4,344	\$2,537	\$1,678	\$304	\$4,194	\$1,398	\$14,455
10	\$1,536	\$2,304	\$3,686	\$4,475	\$2,613	\$1,728	\$313	\$4,320	\$1,440	\$14,889
11	\$1,582	\$2,373	\$3,797	\$4,609	\$2,691	\$1,780	\$323	\$4,449	\$1,483	\$15,335
12	\$1,629	\$2,444	\$3,911	\$4,747	\$2,772	\$1,833	\$332	\$4,583	\$1,528	\$15,795
13	\$1,678	\$2,518	\$4,028	\$4,890	\$2,855	\$1,888	\$342	\$4,720	\$1,573	\$16,269
14	\$1,729	\$2,593	\$4,149	\$5,036	\$2,941	\$1,945	\$353	\$4,862	\$1,621	\$16,757
15	\$1,781	\$2,671	\$4,273	\$5,187	\$3,029	\$2,003	\$363	\$5,008	\$1,669	\$17,260
16	\$1,834	\$2,751	\$4,402	\$5,343	\$3,120	\$2,063	\$374	\$5,158	\$1,719	\$17,778
17	\$1,889	\$2,834	\$4,534	\$5,503	\$3,214	\$2,125	\$385	\$5,313	\$1,771	\$18,311
18	\$1,946	\$2,919	\$4,670	\$5,668	\$3,310	\$2,189	\$397	\$5,472	\$1,824	\$18,861
19	\$2,004	\$3,006	\$4,810	\$5,839	\$3,409	\$2,255	\$409	\$5,636	\$1,879	\$19,426
20	\$2,064	\$3,096	\$4,954	\$6,014	\$3,512	\$2,322	\$421	\$5,805	\$1,935	\$20,009
21	\$2,126	\$3,189	\$5,103	\$6,194	\$3,617	\$2,392	\$434	\$5,980	\$1,993	\$20,610
22	\$2,190	\$3,285	\$5,256	\$6,380	\$3,726	\$2,464	\$447	\$6,159	\$2,053	\$21,228
23	\$2,256	\$3,383	\$5,413	\$6,571	\$3,837	\$2,538	\$460	\$6,344	\$2,115	\$21,865
24	\$2,323	\$3,485	\$5,576	\$6,768	\$3,953	\$2,614	\$474	\$6,534	\$2,178	\$22,521
25	\$2,393	\$3,589	\$5,743	\$6,972	\$4,071	\$2,692	\$488	\$6,730	\$2,243	\$23,196
26	\$2,465	\$3,697	\$5,915	\$7,181	\$4,193	\$2,773	\$503	\$6,932	\$2,311	\$23,892
27	\$2,539	\$3,808	\$6,093	\$7,396	\$4,319	\$2,856	\$518	\$7,140	\$2,380	\$24,609
28	\$2,615	\$3,922	\$6,276	\$7,618	\$4,449	\$2,942	\$533	\$7,354	\$2,451	\$25,347
29	\$2,693	\$4,040	\$6,464	\$7,847	\$4,582	\$3,030	\$549	\$7,575	\$2,525	\$26,108
30	\$2,774	\$4,161	\$6,658	\$8,082	\$4,720	\$3,121	\$566	\$7,802	\$2,601	\$26,891
31	\$2,857	\$4,286	\$6,858	\$8,324	\$4,861	\$3,214	\$583	\$8,036	\$2,679	\$27,697
32	\$2,943	\$4,415	\$7,063	\$8,574	\$5,007	\$3,311	\$600	\$8,277	\$2,759	\$28,528
33	\$3,031	\$4,547	\$7,275	\$8,831	\$5,157	\$3,410	\$618	\$8,526	\$2,842	\$29,384
34	\$3,122	\$4,683	\$7,493	\$9,096	\$5,312	\$3,513	\$637	\$8,781	\$2,927	\$30,266
35	\$3,216	\$4,824	\$7,718	\$9,369	\$5,471	\$3,618	\$656	\$9,045	\$3,015	\$31,174
36	\$3,312	\$4,969	\$7,950	\$9,650	\$5,635	\$3,726	\$675	\$9,316	\$3,105	\$32,109
37	\$3,412	\$5,118	\$8,188	\$9,940	\$5,804	\$3,838	\$696	\$9,596	\$3,199	\$33,072
38	\$3,514	\$5,271	\$8,434	\$10,238	\$5,979	\$3,953	\$717	\$9,883	\$3,294	\$34,064
39	\$3,620	\$5,429	\$8,687	\$10,545	\$6,158	\$4,072	\$738	\$10,180	\$3,393	\$35,086
40	\$3,728	\$5,592	\$8,947	\$10,861	\$6,343	\$4,194	\$760	\$10,485	\$3,495	\$36,139

HUC 12 # 102702050506 Annual Cost* After Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$118	\$353	\$1,413	\$686	\$1,001	\$662	\$240	\$1,655	\$552	\$4,797
2	\$121	\$364	\$1,455	\$706	\$1,031	\$682	\$247	\$1,705	\$568	\$4,941
3	\$125	\$375	\$1,499	\$728	\$1,062	\$702	\$255	\$1,756	\$585	\$5,089
4	\$129	\$386	\$1,544	\$750	\$1,094	\$724	\$262	\$1,809	\$603	\$5,241
5	\$132	\$397	\$1,590	\$772	\$1,127	\$745	\$270	\$1,863	\$621	\$5,399
6	\$136	\$409	\$1,638	\$795	\$1,161	\$768	\$278	\$1,919	\$640	\$5,561
7	\$141	\$422	\$1,687	\$819	\$1,196	\$791	\$287	\$1,977	\$659	\$5,727
8	\$145	\$434	\$1,737	\$844	\$1,232	\$814	\$295	\$2,036	\$679	\$5,899
9	\$149	\$447	\$1,789	\$869	\$1,268	\$839	\$304	\$2,097	\$699	\$6,076
10	\$154	\$461	\$1,843	\$895	\$1,307	\$864	\$313	\$2,160	\$720	\$6,259
11	\$158	\$475	\$1,898	\$922	\$1,346	\$890	\$323	\$2,225	\$742	\$6,446
12	\$163	\$489	\$1,955	\$949	\$1,386	\$917	\$332	\$2,291	\$764	\$6,640
13	\$168	\$504	\$2,014	\$978	\$1,428	\$944	\$342	\$2,360	\$787	\$6,839
14	\$173	\$519	\$2,074	\$1,007	\$1,471	\$972	\$353	\$2,431	\$810	\$7,044
15	\$178	\$534	\$2,137	\$1,037	\$1,515	\$1,002	\$363	\$2,504	\$835	\$7,255
16	\$183	\$550	\$2,201	\$1,069	\$1,560	\$1,032	\$374	\$2,579	\$860	\$7,473
17	\$189	\$567	\$2,267	\$1,101	\$1,607	\$1,063	\$385	\$2,656	\$885	\$7,697
18	\$195	\$584	\$2,335	\$1,134	\$1,655	\$1,094	\$397	\$2,736	\$912	\$7,928
19	\$200	\$601	\$2,405	\$1,168	\$1,705	\$1,127	\$409	\$2,818	\$939	\$8,166
20	\$206	\$619	\$2,477	\$1,203	\$1,756	\$1,161	\$421	\$2,903	\$968	\$8,411
21	\$213	\$638	\$2,551	\$1,239	\$1,809	\$1,196	\$434	\$2,990	\$997	\$8,663
22	\$219	\$657	\$2,628	\$1,276	\$1,863	\$1,232	\$447	\$3,080	\$1,027	\$8,923
23	\$226	\$677	\$2,707	\$1,314	\$1,919	\$1,269	\$460	\$3,172	\$1,057	\$9,191
24	\$232	\$697	\$2,788	\$1,354	\$1,976	\$1,307	\$474	\$3,267	\$1,089	\$9,467
25	\$239	\$718	\$2,872	\$1,394	\$2,036	\$1,346	\$488	\$3,365	\$1,122	\$9,751
26	\$246	\$739	\$2,958	\$1,436	\$2,097	\$1,386	\$503	\$3,466	\$1,155	\$10,043
27	\$254	\$762	\$3,046	\$1,479	\$2,160	\$1,428	\$518	\$3,570	\$1,190	\$10,344
28	\$261	\$784	\$3,138	\$1,524	\$2,224	\$1,471	\$533	\$3,677	\$1,226	\$10,655
29	\$269	\$808	\$3,232	\$1,569	\$2,291	\$1,515	\$549	\$3,787	\$1,262	\$10,974
30	\$277	\$832	\$3,329	\$1,616	\$2,360	\$1,560	\$566	\$3,901	\$1,300	\$11,304
31	\$286	\$857	\$3,429	\$1,665	\$2,431	\$1,607	\$583	\$4,018	\$1,339	\$11,643
32	\$294	\$883	\$3,532	\$1,715	\$2,503	\$1,655	\$600	\$4,139	\$1,380	\$11,992
33	\$303	\$909	\$3,638	\$1,766	\$2,579	\$1,705	\$618	\$4,263	\$1,421	\$12,352
34	\$312	\$937	\$3,747	\$1,819	\$2,656	\$1,756	\$637	\$4,391	\$1,464	\$12,722
35	\$322	\$965	\$3,859	\$1,874	\$2,736	\$1,809	\$656	\$4,522	\$1,507	\$13,104
36	\$331	\$994	\$3,975	\$1,930	\$2,818	\$1,863	\$675	\$4,658	\$1,553	\$13,497
37	\$341	\$1,024	\$4,094	\$1,988	\$2,902	\$1,919	\$696	\$4,798	\$1,599	\$13,902
38	\$351	\$1,054	\$4,217	\$2,048	\$2,989	\$1,977	\$717	\$4,942	\$1,647	\$14,319
39	\$362	\$1,086	\$4,343	\$2,109	\$3,079	\$2,036	\$738	\$5,090	\$1,697	\$14,749
40	\$373	\$1,118	\$4,474	\$2,172	\$3,171	\$2,097	\$760	\$5,243	\$1,748	\$15,191

Riparian Areas Annual Cost* Before Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$4,408	\$6,612	\$10,579	\$12,842	\$7,499	\$4,959	\$899	\$12,398	\$4,133	\$42,729
2	\$4,540	\$6,810	\$10,897	\$13,227	\$7,724	\$5,108	\$926	\$12,769	\$4,256	\$44,011
3	\$4,676	\$7,015	\$11,223	\$13,624	\$7,956	\$5,261	\$954	\$13,153	\$4,384	\$45,332
4	\$4,817	\$7,225	\$11,560	\$14,033	\$8,195	\$5,419	\$982	\$13,547	\$4,516	\$46,692
5	\$4,961	\$7,442	\$11,907	\$14,454	\$8,441	\$5,581	\$1,012	\$13,953	\$4,651	\$48,092
6	\$5,110	\$7,665	\$12,264	\$14,888	\$8,694	\$5,749	\$1,042	\$14,372	\$4,791	\$49,535
7	\$5,263	\$7,895	\$12,632	\$15,334	\$8,955	\$5,921	\$1,073	\$14,803	\$4,934	\$51,021
8	\$5,421	\$8,132	\$13,011	\$15,794	\$9,223	\$6,099	\$1,106	\$15,247	\$5,082	\$52,552
9	\$5,584	\$8,376	\$13,401	\$16,268	\$9,500	\$6,282	\$1,139	\$15,705	\$5,235	\$54,128
10	\$5,751	\$8,627	\$13,803	\$16,756	\$9,785	\$6,470	\$1,173	\$16,176	\$5,392	\$55,752
11	\$5,924	\$8,886	\$14,218	\$17,259	\$10,078	\$6,664	\$1,208	\$16,661	\$5,554	\$57,425
12	\$6,102	\$9,153	\$14,644	\$17,777	\$10,381	\$6,864	\$1,244	\$17,161	\$5,720	\$59,147
13	\$6,285	\$9,427	\$15,083	\$18,310	\$10,692	\$7,070	\$1,282	\$17,676	\$5,892	\$60,922
14	\$6,473	\$9,710	\$15,536	\$18,859	\$11,013	\$7,282	\$1,320	\$18,206	\$6,069	\$62,750
15	\$6,667	\$10,001	\$16,002	\$19,425	\$11,343	\$7,501	\$1,360	\$18,752	\$6,251	\$64,632
16	\$6,868	\$10,301	\$16,482	\$20,008	\$11,684	\$7,726	\$1,400	\$19,315	\$6,438	\$66,571
17	\$7,074	\$10,610	\$16,977	\$20,608	\$12,034	\$7,958	\$1,442	\$19,894	\$6,631	\$68,568
18	\$7,286	\$10,929	\$17,486	\$21,226	\$12,395	\$8,196	\$1,486	\$20,491	\$6,830	\$70,625
19	\$7,504	\$11,256	\$18,010	\$21,863	\$12,767	\$8,442	\$1,530	\$21,106	\$7,035	\$72,744
20	\$7,729	\$11,594	\$18,551	\$22,519	\$13,150	\$8,696	\$1,576	\$21,739	\$7,246	\$74,926
21	\$7,961	\$11,942	\$19,107	\$23,194	\$13,545	\$8,957	\$1,624	\$22,391	\$7,464	\$77,174
22	\$8,200	\$12,300	\$19,680	\$23,890	\$13,951	\$9,225	\$1,672	\$23,063	\$7,688	\$79,489
23	\$8,446	\$12,669	\$20,271	\$24,607	\$14,369	\$9,502	\$1,722	\$23,755	\$7,918	\$81,874
24	\$8,700	\$13,049	\$20,879	\$25,345	\$14,801	\$9,787	\$1,774	\$24,468	\$8,156	\$84,330
25	\$8,961	\$13,441	\$21,505	\$26,105	\$15,245	\$10,081	\$1,827	\$25,202	\$8,401	\$86,860
26	\$9,229	\$13,844	\$22,150	\$26,889	\$15,702	\$10,383	\$1,882	\$25,958	\$8,653	\$89,466
27	\$9,506	\$14,259	\$22,815	\$27,695	\$16,173	\$10,695	\$1,939	\$26,736	\$8,912	\$92,150
28	\$9,791	\$14,687	\$23,499	\$28,526	\$16,658	\$11,015	\$1,997	\$27,538	\$9,179	\$94,914
29	\$10,085	\$15,128	\$24,204	\$29,382	\$17,158	\$11,346	\$2,057	\$28,365	\$9,455	\$97,762
30	\$10,388	\$15,582	\$24,931	\$30,263	\$17,673	\$11,686	\$2,118	\$29,216	\$9,739	\$100,695
31	\$10,699	\$16,049	\$25,678	\$31,171	\$18,203	\$12,037	\$2,182	\$30,092	\$10,031	\$103,715
32	\$11,020	\$16,531	\$26,449	\$32,106	\$18,749	\$12,398	\$2,247	\$30,995	\$10,332	\$106,827
33	\$11,351	\$17,026	\$27,242	\$33,070	\$19,311	\$12,770	\$2,315	\$31,925	\$10,642	\$110,032
34	\$11,691	\$17,537	\$28,060	\$34,062	\$19,891	\$13,153	\$2,384	\$32,882	\$10,961	\$113,333
35	\$12,042	\$18,063	\$28,901	\$35,084	\$20,487	\$13,548	\$2,456	\$33,869	\$11,290	\$116,733
36	\$12,404	\$18,605	\$29,768	\$36,136	\$21,102	\$13,954	\$2,529	\$34,885	\$11,628	\$120,235
37	\$12,776	\$19,163	\$30,661	\$37,220	\$21,735	\$14,373	\$2,605	\$35,931	\$11,977	\$123,842
38	\$13,159	\$19,738	\$31,581	\$38,337	\$22,387	\$14,804	\$2,683	\$37,009	\$12,336	\$127,557
39	\$13,554	\$20,330	\$32,529	\$39,487	\$23,059	\$15,248	\$2,764	\$38,120	\$12,707	\$131,384
40	\$13,960	\$20,940	\$33,505	\$40,671	\$23,751	\$15,705	\$2,847	\$39,263	\$13,088	\$135,325

Riparian Areas Annual Cost* After Cost-Share, Cropland BMPs										
Year	Buffers	Cover Crops	Grassed Waterways	No-Till	Nutrient Management Plans	Permanent Vegetation	Subsurface Fertilizer Application	Terraces	Water Retention Structures	Total Adoption Costs
1	\$441	\$1,322	\$5,290	\$2,568	\$3,750	\$2,480	\$899	\$6,199	\$2,066	\$17,961
2	\$454	\$1,362	\$5,448	\$2,645	\$3,862	\$2,554	\$926	\$6,385	\$2,128	\$18,500
3	\$468	\$1,403	\$5,612	\$2,725	\$3,978	\$2,631	\$954	\$6,576	\$2,192	\$19,055
4	\$482	\$1,445	\$5,780	\$2,807	\$4,097	\$2,709	\$982	\$6,774	\$2,258	\$19,627
5	\$496	\$1,488	\$5,953	\$2,891	\$4,220	\$2,791	\$1,012	\$6,977	\$2,326	\$20,216
6	\$511	\$1,533	\$6,132	\$2,978	\$4,347	\$2,874	\$1,042	\$7,186	\$2,395	\$20,822
7	\$526	\$1,579	\$6,316	\$3,067	\$4,477	\$2,961	\$1,073	\$7,402	\$2,467	\$21,447
8	\$542	\$1,626	\$6,506	\$3,159	\$4,612	\$3,049	\$1,106	\$7,624	\$2,541	\$22,090
9	\$558	\$1,675	\$6,701	\$3,254	\$4,750	\$3,141	\$1,139	\$7,852	\$2,617	\$22,753
10	\$575	\$1,725	\$6,902	\$3,351	\$4,892	\$3,235	\$1,173	\$8,088	\$2,696	\$23,436
11	\$592	\$1,777	\$7,109	\$3,452	\$5,039	\$3,332	\$1,208	\$8,331	\$2,777	\$24,139
12	\$610	\$1,831	\$7,322	\$3,555	\$5,190	\$3,432	\$1,244	\$8,581	\$2,860	\$24,863
13	\$628	\$1,885	\$7,542	\$3,662	\$5,346	\$3,535	\$1,282	\$8,838	\$2,946	\$25,609
14	\$647	\$1,942	\$7,768	\$3,772	\$5,507	\$3,641	\$1,320	\$9,103	\$3,034	\$26,377
15	\$667	\$2,000	\$8,001	\$3,885	\$5,672	\$3,750	\$1,360	\$9,376	\$3,125	\$27,168
16	\$687	\$2,060	\$8,241	\$4,002	\$5,842	\$3,863	\$1,400	\$9,657	\$3,219	\$27,983
17	\$707	\$2,122	\$8,488	\$4,122	\$6,017	\$3,979	\$1,442	\$9,947	\$3,316	\$28,823
18	\$729	\$2,186	\$8,743	\$4,245	\$6,198	\$4,098	\$1,486	\$10,246	\$3,415	\$29,688
19	\$750	\$2,251	\$9,005	\$4,373	\$6,384	\$4,221	\$1,530	\$10,553	\$3,518	\$30,578
20	\$773	\$2,319	\$9,275	\$4,504	\$6,575	\$4,348	\$1,576	\$10,870	\$3,623	\$31,496
21	\$796	\$2,388	\$9,554	\$4,639	\$6,772	\$4,478	\$1,624	\$11,196	\$3,732	\$32,440
22	\$820	\$2,460	\$9,840	\$4,778	\$6,975	\$4,613	\$1,672	\$11,532	\$3,844	\$33,414
23	\$845	\$2,534	\$10,135	\$4,921	\$7,185	\$4,751	\$1,722	\$11,877	\$3,959	\$34,416
24	\$870	\$2,610	\$10,439	\$5,069	\$7,400	\$4,894	\$1,774	\$12,234	\$4,078	\$35,449
25	\$896	\$2,688	\$10,753	\$5,221	\$7,622	\$5,040	\$1,827	\$12,601	\$4,200	\$36,512
26	\$923	\$2,769	\$11,075	\$5,378	\$7,851	\$5,192	\$1,882	\$12,979	\$4,326	\$37,607
27	\$951	\$2,852	\$11,408	\$5,539	\$8,086	\$5,347	\$1,939	\$13,368	\$4,456	\$38,736
28	\$979	\$2,937	\$11,750	\$5,705	\$8,329	\$5,508	\$1,997	\$13,769	\$4,590	\$39,898
29	\$1,009	\$3,026	\$12,102	\$5,876	\$8,579	\$5,673	\$2,057	\$14,182	\$4,727	\$41,095
30	\$1,039	\$3,116	\$12,465	\$6,053	\$8,836	\$5,843	\$2,118	\$14,608	\$4,869	\$42,327
31	\$1,070	\$3,210	\$12,839	\$6,234	\$9,101	\$6,018	\$2,182	\$15,046	\$5,015	\$43,597
32	\$1,102	\$3,306	\$13,224	\$6,421	\$9,374	\$6,199	\$2,247	\$15,497	\$5,166	\$44,905
33	\$1,135	\$3,405	\$13,621	\$6,614	\$9,656	\$6,385	\$2,315	\$15,962	\$5,321	\$46,252
34	\$1,169	\$3,507	\$14,030	\$6,812	\$9,945	\$6,576	\$2,384	\$16,441	\$5,480	\$47,640
35	\$1,204	\$3,613	\$14,451	\$7,017	\$10,244	\$6,774	\$2,456	\$16,934	\$5,645	\$49,069
36	\$1,240	\$3,721	\$14,884	\$7,227	\$10,551	\$6,977	\$2,529	\$17,442	\$5,814	\$50,541
37	\$1,278	\$3,833	\$15,331	\$7,444	\$10,868	\$7,186	\$2,605	\$17,966	\$5,989	\$52,057
38	\$1,316	\$3,948	\$15,791	\$7,667	\$11,194	\$7,402	\$2,683	\$18,505	\$6,168	\$53,619
39	\$1,355	\$4,066	\$16,264	\$7,897	\$11,529	\$7,624	\$2,764	\$19,060	\$6,353	\$55,228
40	\$1,396	\$4,188	\$16,752	\$8,134	\$11,875	\$7,853	\$2,847	\$19,632	\$6,544	\$56,885