

Template 2. Detailed BMP Entry Form

Action #	Sector	BMP Name	Measurement Units	County	Quantity	Cost	Total Cost	Notes
	Agriculture	Soil Conservation and Water Quality Plans	Acres	Bedford	102000	1.94	197880	
	Agriculture	Nutrient Management Core N	Acres	Bedford	76000	16.62	1263120	63% of total available acres
	Agriculture	Nutrient Management Core P	Acres	Bedford	22000	24.91	548020	17% of total available acres
	Agriculture	Barnyard Runoff Control	Acres	Bedford	9	567.46	5107.14	68% of total available acres
	Agriculture	Tillage Management-High Residue	Acres	Bedford	26000	0	0	51% of total available acres
	Agriculture	Tillage Management-Conservation	Acres	Bedford	10000	0	0	19% of total available acres
	Agriculture	Cover Crop Traditional	Acres	Bedford	5000	33.33	166650	10% of total available acres
	Agriculture	Cover Crop Traditional with Fall Nutrients	Acres	Bedford	17000	66.67	1133390	33% of total available acres
	Agriculture	Precision Intensive Rotational/Prescribed Grazing	Acres	Bedford	12000	16	192000	50% of total available acres
	Agriculture	Nutrient Management Core N	Acres	Bedford	8000	16.62	132960	5% of total available acres
	Agriculture	Nutrient Management Core P	Acres	Bedford	2000	24.91	49820	3% of total available acres
	Agriculture	Nutrient Management N Rate	Acres	Bedford	10000	38.98	389800	8% of total available acres
	Agriculture	Nutrient Management P Rate	Acres	Bedford	10000	47.27	472700	8% of total available acres
	Agriculture	Nutrient Management N Placement	Acres	Bedford	13000	33.74	438620	10% of total available acres
	Agriculture	Nutrient Management P Placement	Acres	Bedford	10000	42.03	420300	8% of total available acres
	Agriculture	Nutrient Management N Timing	Acres	Bedford	14000	33.74	472360	12% of total available acres
	Agriculture	Nutrient Management P Timing	Acres	Bedford	10000	42.03	420300	8% of total available acres
	Animals	Animal Waste Management System	Animal Units	Bedford	30000	121.61	3648300	80% new AU's
	Animals	Dairy Precision Feeding and/or Forage Manager	Animal Units	Bedford	14000	-9.95	-139300	70% dairy cow AU's
	Animals	Manure Transport	Dry Tons	Bedford	2000	27.53	55060	
	Agriculture	Forest Buffer	Acres	Bedford	2100	153.28	321888	18% of total available acres
	Agriculture	Forest Buffer-Streamside with Exclusion Fencing	Acres	Bedford	2000	709.73	1419460	17% of total available acres
	Agriculture	Grass Buffer	Acres	Bedford	1400	56.95	79730	13% of total available acres
	Agriculture	Grass Buffer-Streamside with Exclusion Fencing	Acres	Bedford	900	277.3	249570	2% of total available acres
	Developed	Forest Buffer	Acres	Bedford	40	153.28	6131.2	1% of total available acres
	Agriculture	Forest Buffer	Acres	Bedford	220	153.28	33721.6	
			Acres	Bedford	150	#N/A	#N/A	Specified as Conservation Landscaping
	Developed	Forest Planting	Acres	Bedford	200	92.23	18446	
	Developed	Tree Planting - Canopy	Acres	Bedford	5	107.78	538.9	
			Acres	Bedford	3900	#N/A	#N/A	Specified as Farmland Conservation
			Acres	Bedford	4000	#N/A	#N/A	Specified as Forest Conservation
			Acres	Bedford	80	#N/A	#N/A	Specified as Wetland Conservation
	Developed	Urban Stream Restoration	Feet	Bedford	30000	145	4350000	
	Agriculture	Non Urban Stream Restoration	Linear Feet	Bedford	8000	5.1	40800	
	Developed	Wetland Restoration	Acres	Bedford	150	319.62	47943	
	Developed	Advanced Grey Infrastructure Nutrient Discovery	Acres Treated	Bedford	250	8.87	2217.5	1% of total available acres
	Developed	Impervious Surface Reduction	Acres	Bedford	1	14214.02	14214.02	
	Developed	Nutrient Management Plan	Acres	Bedford	3400	0	0	9% of total available acres
	Agriculture	Cover Crop Traditional	Acres	Bedford	8000	33.33	266640	underestimated adjustment
	Agriculture	Cover Crop Commodity	Acres	Bedford	1200	66.67	80004	estimated plausible
	Agriculture	Nutrient Management Core N	Acres	Bedford	5000	16.62	83100	identified focus
	Agriculture	Nutrient Management Core P	Acres	Bedford	1500	24.91	37365	identified focus
	Agriculture	Forest Buffer	Acres	Bedford	200	153.28	30656	identified focus
				Bedford	80	#N/A	#N/A	Wetland Conservation-additional
	Agriculture	Non Urban Stream Restoration	Linear Feet	Bedford	40000	5.1	204000	identified focus
	Developed	Wet Ponds and Wetlands	Acres Treated	Bedford	40	330.44	13217.6	uncaptured estimate
	Developed	Stormwater Performance Standard-Runoff Redu	Acres Treated	Bedford	350	1584.68	554638	uncaptured estimate
	Developed	Bioretention/raingardens	Acres Treated	Bedford	15	1059.4	15891	uncaptured estimate
	Developed	Vegetated Open Channels	Acres Treated	Bedford	10	819.32	8193.2	uncaptured estimate
	Developed	Filtering Practices	Acres Treated	Bedford	5	2324.93	11624.65	uncaptured estimate
	Septic	Septic Denitrification-Conventional	Number of Systems	Bedford	100	1192.24	119224	identified focus
	Developed	Dirt & Gravel Road Erosion & Sediment Control - Outlets only		Bedford	5500	0.83	4565	current initiative - estimate
	Developed	Dirt & Gravel Road Erosion & Sediment Control - Driving Surface Aggregate with Outlets		Bedford	8000	0.83	6640	current initiative - estimate
	Agriculture	Land Retirement to Ag Open Space	Acres	Bedford	1200	168.87	202644	estimate of observed conditions
	Developed	Dirt & Gravel Road Erosion & Sediment Control - Feet		Bedford	54000	0.83	44820	per historic numbers

Bedford County Agriculture Best Management Practices (BMPs) Proposed CAP Implementation Rates

Best Management Practice	Amount	Units of Measure	Percent of Total Available Acres
Agriculture Compliance			
Soil Conservation and Water Quality Plans	102,000	Total Acres	78%
Nutrient Management Core N	76,000	Total Acres	63%
Nutrient Management Core P	22,000	Total Acres	17%
Barnyard Runoff Control	9	New Acres	68%
Soil Health			
Tillage Management-High Residue	26,000	Acres/Year	51%
Tillage Management-Conservation	10,000	Acres/Year	19%
Cover Crop Traditional	13,000	Acres/Year	26%
Cover Crop Traditional with Fall Nutrients	17,000	Acres/Year	33%
Cover Crop Commodity	1,200	Acres/Year	N/A
Prescribed Grazing	12,000	Total Acres	50%
Expanded Nutrient Management			
Nutrient Management Core N	13,000	Acres	17%
Nutrient Management Core P	3,500	Acres	7%
Nutrient Management N Rate	10,000	Acres	8%
Nutrient Management P Rate	10,000	Acres	8%
Nutrient Management N Placement	13,000	Acres	10%
Nutrient Management P Placement	10,000	Acres	8%
Nutrient Management N Timing	14,000	Acres	12%
Nutrient Management P Timing	10,000	Acres	8%
Manure Storage Facilities			
Manure Storage Facilities	30,000	New AU's	80%
Dairy Precision Feeding			
Dairy Cow Precision Feed Management	14,000	Dairy Cow AU's	70%
Integrated System for Elimination of Excess			
Manure Transport out of Bedford County	2,000	Dry Tons/Year	N/A
Agriculture Riparian Zone			
Forest Buffer	2,300	New Acres	20%
Forest Buffer-Streamside with Exclusion Fencing	2,000	New Acres	17%
Grass Buffer	1,400	New Acres	13%
Grass Buffer-Streamside with Exclusion Fencing	900	New Acres	3%
Land Retirements			
Retirement to Ag Open Space	1,200	Acres	N/A

The agriculture BMP implementation rates provided above are based on a combination of the state recommendations identified in the Chesapeake Bay Phase 3 Watershed Implementation Plan (WIP) and the Bedford Countywide Action Plan (CAP) Steering Committee. The BMPs and rates will serve as a guide during the implementation phase and may be adjusted or changed based on new opportunities, success rates, and measured progress.

Bedford County Stormwater Best Management Practices (BMPs) Proposed CAP Implementation Rates

Best Management Practice	Amount	Units of Measure	Percent of Total Available Acres
Urban/Developed Areas Riparian Zone			
MS4 Riparian Forest Buffers	40	New Acres	1%
Non-MS4 Forest Buffers	220	New Acres	3%
Woods and Pollinator Habitat			
Conservation Landscaping	150	New Acres	N/A
Urban Forest Planting	200	New Acres	N/A
Urban Tree Canopy			
MS4 Urban Tree Canopy	5	New Acres	N/A
Forest, Farm, and Natural Areas Conservation			
Farmland Conservation	3,900	Total Acres	N/A
Forest Conservation	4,000	Total Acres	N/A
Wetland Conservation	160	Total Acres	N/A
Stream and Wetland Restoration			
Urban Stream Restoration	30,000	New Linear Feet	N/A
Non-urban Stream Restoration	48,000	New Linear Feet	N/A
Wetland Restoration	150	Acres	N/A
Control Measures for Illicit Discharges			
Advanced Grey Infrastructure IDD&E Control	250	Acres Treated	<1%
Industrial Stormwater			
Impervious Surface Reduction	1	Acres	N/A
Fertilizer Legislation			
Urban Nutrient Management	3,400	Acres	9%
Septic Systems			
Conventional Septic Denitrification	100	Systems	N/A
Stormwater Control Measures			
Wet Ponds and Wetlands	40	Acres Treated	N/A
Stormwater Performance Standard-Runoff Reduction	350	Acres Treated	N/A
Bioretention/Raingardens	15	Acres Treated	N/A
Vegetated Open Channels	10	Acres Treated	N/A
Filtering Practices	5	Acres Treated	N/A
Dirt & Gravel Road Program			
Outlets Only	5,500	Linear Feet	N/A
Driving Surface + Outlets	8,000	Linear Feet	N/A
Driving Surface + Raising the Roadbed	54,000	Linear Feet	N/A

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**Bedford County Agriculture Best Management Practices (BMPs)
Proposed CAP Implementation Rates**

Best Management Practice	Amount	Units of Measure	Percent of Total Available Acres	App. Total Imp. Costs
Agriculture Compliance				
Soil Conservation and WQ Plans	102,000	Total Acres	78%	\$2.01 million
Nutrient Management Core N	76,000	Total Acres	63%	
Nutrient Management Core P	22,000	Total Acres	17%	
Barnyard Runoff Control	9	New Acres	68%	
Soil Health				
Tillage Management-High Residue	26,000	Acres/Year	51%	\$1.8 million
Tillage Management-Conservation	10,000	Acres/Year	19%	
Cover Crop Traditional	13,000	Acres/Year	26%	
Cover Crop Traditional with Fall Nut.	17,000	Acres/Year	33%	
Cover Crop Commodity	1,200	Acres/Year	N/A	
Prescribed Grazing	12,000	Total Acres	50%	
Expanded Nutrient Management				
Nutrient Management Core N	13,000	Acres	17%	\$2.9 million
Nutrient Management Core P	3,500	Acres	7%	
Nutrient Management N Rate	10,000	Acres	8%	
Nutrient Management P Rate	10,000	Acres	8%	
Nutrient Management N Placement	13,000	Acres	10%	
Nutrient Management P Placement	10,000	Acres	8%	
Nutrient Management N Timing	14,000	Acres	12%	
Nutrient Management P Timing	10,000	Acres	8%	
Manure Storage Facilities				
Manure Storage Facilities	30,000	New AU's	80%	\$3.6 million
Dairy Precision Feeding				
Dairy Cow Precision Feed Management	14,000	Dairy Cow AU's	70%	N/A
Integrated System for Elimination of Excess				
Manure Transport out of Bedford Cty.	2,000	Dry Tons/Year	N/A	\$55,000
Agriculture Riparian Zone				
Forest Buffer	2,300	New Acres	20%	\$2.1 million
Forest Buffer-Streamside w/Fencing	2,000	New Acres	17%	
Grass Buffer	1,400	New Acres	13%	
Grass Buffer-Streamside w/Fencing	900	New Acres	3%	
Land Retirements				
Retirement to Ag Open Space	1,200	Acres	N/A	\$203,000

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**Bedford County Stormwater Best Management Practices (BMPs)
Proposed CAP Implementation Rates**

Best Management Practice	Amount	Units of Measure	Percent of Total Available Acres	App. Total Imp. Costs
Urban/Developed Areas Riparian Zone				
MS4 Riparian Forest Buffers	40	New Acres	1%	\$40,000
Non-MS4 Forest Buffers	220	New Acres	3%	
Woods and Pollinator Habitat				
Conservation Landscaping	150	New Acres	N/A	\$318,000
Urban Forest Planting	200	New Acres	N/A	
Urban Tree Canopy				
MS4 Urban Tree Canopy	5	New Acres	N/A	\$550
Forest, Farm, and Natural Areas Conservation				
Farmland Conservation	3,900	Total Acres	N/A	\$1.2 million
Forest Conservation	4,000	Total Acres	N/A	
Wetland Conservation	160	Total Acres	N/A	
Stream and Wetland Restoration				
Urban Stream Restoration	30,000	New Linear Feet	N/A	\$27.3 million
Non-urban Stream Restoration	48,000	New Linear Feet	N/A	
Wetland Restoration	150	Acres	N/A	
Control Measures for Illicit Discharges				
Adv. Grey Infrastructure IDD&E Control	250	Acres Treated	<1%	\$2,200
Industrial Stormwater				
Impervious Surface Reduction	1	Acres	N/A	\$14,200
Fertilizer Legislation				
Urban Nutrient Management	3,400	Acres	9%	N/A
Septic Systems				
Conventional Septic Denitrification	100	Systems	N/A	\$120,000
Stormwater Control Measures				
Wet Ponds and Wetlands	40	Acres Treated	N/A	\$604,000
SPS-Runoff Reduction	350	Acres Treated	N/A	
Bioretention/Raingardens	15	Acres Treated	N/A	
Vegetated Open Channels	10	Acres Treated	N/A	
Filtering Practices	5	Acres Treated	N/A	
Dirt & Gravel Road Program				
Outlets Only	300	Linear Feet	N/A	\$1,080
Driving Surface + Outlets	1,000	Linear Feet	N/A	

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