

Ranking Tool Summary for FY2017 - Cropland (Released 12/29/2016)

Description:

Land Uses:

Associated Agriculture Land, Crop

Efficiency Score:

Scoring Multiplier: 4.390

Optional Notes:

National Priorities:

Scoring Multiplier: 1.000

Questions:

Number	Question	Points
1	a. Is the program application to support the development of a Conservation Activity Plan (CAP)? If answer is "Yes", do not answer any other national level questions. If answer is "No", proceed with evaluation to address the remaining questions in this section.	250
2	a. Implementing the practices in a Comprehensive Nutrient Management Plan (CNMP)?	15
2	b. Implementing the practices in a Nutrient Management Plan (NMP)?	10
2	c. Reducing impacts from sediment, nutrients, salinity, or pesticides on land adjoining a designated "impaired water body" (TMDL, 303d listed waterbody, or other State designation)?	10
2	d. Reducing the impacts from sediment, nutrients, salinity, or pesticides in a "non-impaired water body"?	10
2	e. Implementing practices that improve water quality through animal mortality and carcass management?	10
3	a. Implementing irrigation practices that reduce aquifer overdraft.	15
3	b. Implementing irrigation practices that reduce on-farm water use?	10
3	c. Implementing practices in an area where the applicant participates in a geographically established or watershed-wide project?	10
3	d. Implementing practices that reduce on-farm water use as a result of changing to crops with lower water consumptive use, the rotation of crops, or the modification of cultural operations?	10
4	a. Meeting on-farm regulatory requirements relating to air quality or proactively avoid the need for regulatory measures?	10
4	b. Implementing practices that reduce on-farm emissions of particulate matter (PM2.5, PM10)?	10
4	c. Implementing practices that reduce on-farm generated greenhouse gases such as carbon dioxide (CO ₂), methane (CH ₄), and nitrous oxide (N ₂ O)?	10
4	d. Implementing practices that increase on-farm carbon sequestration?	10
5	a. Reduce erosion to tolerable limits (Soil "T")?	10
5	b. Increasing organic matter and carbon content, and improving soil tilth and structure?	10
6	a. Implementing practices benefitting threatened and endangered, at-risk, candidate, or species of concern.	10
6	b. Implementing practices that retain wildlife and plant habitat on land exiting the Conservation Reserve Program (CRP) or other set-aside program?	10
6	c. Implementing practices benefitting honey bee populations or other pollinators?	10
6	d. Implementing land-based practices that improve habitat for aquatic wildlife?	10
7	a. Implementing practices that result in the management control of noxious or invasive plant species on non-cropland?	10
7	b. Implementing practice in an Integrated Pest Management Plan (IPM)?	10
8	a. Reducing on-farm energy consumption?	10
8	b. Implementing practice(s) identified in an approved AgEMP or energy audit, which meet	10

	ASABE S612 criteria?	
9	a. Enhancement of existing conservation practice(s) or conservation systems already in place at the time the application is received?	10
	Total Points	500

State Issues:

Scoring Multiplier: 1.000

Questions:

Sub-heading Number	Question Number	Question	Points
1		Water - Water Quality Degradation: Excess nutrients in surface and ground waters and Excess pathogens and chemicals from manure, bio-solids or compost applications. Questions 2-4: Only one Yes allowed - maximum 50 points	
	1	The application includes 393 Filter Strip, or 390 Riparian Herbaceous Cover, or 391 Riparian Forest Buffer.	60
	2	The application includes 590 Nutrient Management - Enhanced Nutrient Mgt level C.	50
	3	The application includes 590 Nutrient Management - Basic Nutrient Mgmt., manure history level B manure	30
	4	The application includes 590 Nutrient Management - Basic Nutrient Mgmt., fertilizer only level B fertilizer	20
	5	The application includes 340 Cover Crop - Nitrogen Fixing Cover	25
	6	The application includes 340 Cover Crop - Nitrogen Scavenging Cover	25
2		Soil - Soil Erosion: Sheet, rill, wind, and concentrated flow. Questions 3-5: Only one Yes allowed - maximum 20 points. Questions 6-8: Only one Yes allowed - maximum 15 points.	
	1	The application includes practices that directly treat gully erosion by eliminating one or more of the following pollutants from reaching surface water or open sinkholes: nutrients, pathogens, pesticides, or sediment.	30
	2	The application includes one or more of the following practices: 330 Contour Farming, 332 Contour Buffer Strips, 350 Sediment Basin, 362 Diversion, 585 Stripcropping	20
	3	The application includes 329 Residue and Tillage Management - No-Till for 3 years.	20
	4	The application includes 329 Residue and Tillage Management - No-Till for 2 years.	15
	5	The application includes 329 Residue and Tillage Management - No-Till for 1 year.	10
	6	The application includes 345 Residue and Tillage Management, Reduced Till for 3 years.	15
	7	The application includes 345 Residue and Tillage Management, Reduced Till for 2 years.	10
	8	The application includes 345 Residue and Tillage Management, Reduced Till for 1 year.	5
	9	The application includes one or more of the following practices that convert marginal cropland to pasture, hayland or trees: 327 Conservation Cover, 390 Riparian Herbaceous Cover, 391 Riparian Forest Buffer, 512 Forage and Biomass Planting, 612 Tree/Shrub Establishment. Minimum PLU is a CLU. Only applicable on CLUs where the predominant soil has a Capability Class of 3 or greater.	35
3		Soil - Soil Quality Degradation: Soil organic matter (SOM) depletion and compaction. For questions 1 thru 4, only one "Yes" allowed (60 points max.), and answer using the VA Agronomy Technical Note #11 at https://efotg.sc.egov.usda.gov/references/public/VA/VA_TN11_Agronomy.pdf . Determine the improvement in SCI/SOM performance level when comparing the baseline/existing cropping system with the new planned/EQIP-funded cropping system (number of steps up in the "stair-step" SOM criteria diagram).	
	1	SCI/SOM performance improves by 4 levels (4 steps up in "stair-step" diagram)	60
	2	SCI/SOM performance improves by 3 levels (3 steps up in "stair-step" diagram)	45
	3	SCI/SOM performance improves by 2 levels (2 steps up in "stair-step" diagram)	30
	4	SCI/SOM performance improves by 1 level (1 step up in "stair-step" diagram)	15
	5	The application includes 334 Controlled Traffic Farming	10

	6	The application includes 340 Cover Crop - Soil Health Cover (min. of 3 species with at least one in each of the 3 functional groups).	10
4		Plants - Degraded Plant Condition: Undesirable plant productivity and health, and inadequate structure and composition	
	1	The application includes conservation practices that are beneficial to pollinators and beneficial insects: 327 Conseravtation Cover or 386 Field Border.	25
	2	The application includes 449 Irrigation Water Management.	15
Maximum Points: 400			Total Points
			580

Local Issues:

Scoring Multiplier: 1.000

Questions:

Sub-heading Number	Question Number	Question	Points
1		Geographic and Resource Priorities: Virginia 12-Digit HUCS containing TMDL Streams: Prioritized by Non-Point Source Pollution Risks from Agriculture. Only one yes allowed for questions 1-3.	
	1	Within a High Priority HUC	200
	2	Within a Medium Priority HUC	150
	3	Within a Low Priority HUC	100
2		Geographic and Resource Priorities: Chesapeake Bay	
	1	The area being considered is within the Chesapeake Bay Watershed.	25
3		Threatened and Endangered Species	
	1	Will the project occur within 2 miles of, AND provide a direct benefit to a species that is in the Toolkit layer T&E species (either DGIF or Natural Heritage). The direct benefit shall be confirmed by a biologist and documentation exists to substantiate points awarded.	25
Maximum Points: 250			Total Points
			500

Selected Resource Concerns and Practices:

Degraded Plant Condition: Excessive Plant Pest Pressure

- Conservation Cover (327)
- Contour Buffer Strips (332)
- Cover Crop (340)
- Critical Area Planting (342)
- Grassed Waterway (412)
- Irrigation System, Microirrigation (441)
- Irrigation Water Management (449)
- Mulching (484)
- Riparian Forest Buffer (391)
- Riparian Herbaceous Cover (390)
- Streambank and Shoreline Protection (580)
- Tree/Shrub Establishment (612)
- Tree/Shrub Site Preparation (490)
- Windbreak/Shelterbelt Establishment (380)

Degraded Plant Condition: Inadequate Structure and Composition

- Conservation Cover (327)
- Contour Buffer Strips (332)
- Controlled Traffic Farming (334)
- Cover Crop (340)
- Critical Area Planting (342)
- Field Border (386)
- Filter Strip (393)
- Forage and Biomass Planting (512)
- Grassed Waterway (412)
- Nutrient Management (590)
- Riparian Forest Buffer (391)

- Riparian Herbaceous Cover (390)
- Streambank and Shoreline Protection (580)
- Tree/Shrub Establishment (612)
- Tree/Shrub Site Preparation (490)
- Windbreak/Shelterbelt Establishment (380)
- Degraded Plant Condition: Undesirable Plant Productivity and Health
 - Conservation Cover (327)
 - Contour Buffer Strips (332)
 - Contour Farming (330)
 - Controlled Traffic Farming (334)
 - Cover Crop (340)
 - Critical Area Planting (342)
 - Diversion (362)
 - Drainage Water Management (554)
 - Field Border (386)
 - Filter Strip (393)
 - Forage and Biomass Planting (512)
 - Grassed Waterway (412)
 - Irrigation Pipeline (430)
 - Irrigation System, Microirrigation (441)
 - Irrigation Water Management (449)
 - Mulching (484)
 - Nutrient Management (590)
 - Pumping Plant (533)
 - Residue and Tillage Management, No-Till (329)
 - Residue and Tillage Management, Reduced (345)
 - Riparian Forest Buffer (391)
 - Riparian Herbaceous Cover (390)
 - Streambank and Shoreline Protection (580)
 - Stripcropping (585)
 - Subsurface Drain (606)
 - Tree/Shrub Establishment (612)
 - Tree/Shrub Site Preparation (490)
 - Underground Outlet (620)
 - Windbreak/Shelterbelt Establishment (380)
- Insufficient Water: Inefficient Use of Irrigation Water
 - Controlled Traffic Farming (334)
 - Cover Crop (340)
 - Diversion (362)
 - Irrigation Pipeline (430)
 - Irrigation System, Microirrigation (441)
 - Irrigation Water Management (449)
 - Mulching (484)
 - Pumping Plant (533)
 - Residue and Tillage Management, No-Till (329)
 - Residue and Tillage Management, Reduced (345)
 - Structure for Water Control (587)
 - Subsurface Drain (606)
 - Windbreak/Shelterbelt Establishment (380)
- Soil Erosion: Classic Gully Erosion
 - Conservation Cover (327)
 - Critical Area Planting (342)
 - Diversion (362)
 - Grade Stabilization Structure (410)
 - Grassed Waterway (412)
 - Irrigation Pipeline (430)
 - Karst Sinkhole Treatment (527)
 - Lined Waterway or Outlet (468)
 - Riparian Forest Buffer (391)
 - Sediment Basin (350)
 - Subsurface Drain (606)
 - Tree/Shrub Establishment (612)
 - Tree/Shrub Site Preparation (490)
 - Underground Outlet (620)
- Soil Erosion: Ephemeral Gully Erosion
 - Conservation Cover (327)

- Cover Crop (340)
- Critical Area Planting (342)
- Diversion (362)
- Field Border (386)
- Grassed Waterway (412)
- Karst Sinkhole Treatment (527)
- Lined Waterway or Outlet (468)
- Riparian Forest Buffer (391)
- Riparian Herbaceous Cover (390)
- Sediment Basin (350)
- Subsurface Drain (606)
- Tree/Shrub Establishment (612)
- Tree/Shrub Site Preparation (490)
- Underground Outlet (620)
- Windbreak/Shelterbelt Establishment (380)
- Soil Erosion: Sheet and Rill Erosion
 - Conservation Cover (327)
 - Contour Buffer Strips (332)
 - Contour Farming (330)
 - Cover Crop (340)
 - Critical Area Planting (342)
 - Diversion (362)
 - Field Border (386)
 - Forage and Biomass Planting (512)
 - Mulching (484)
 - Residue and Tillage Management, No-Till (329)
 - Residue and Tillage Management, Reduced (345)
 - Riparian Forest Buffer (391)
 - Riparian Herbaceous Cover (390)
 - Stripcropping (585)
 - Subsurface Drain (606)
 - Tree/Shrub Establishment (612)
 - Tree/Shrub Site Preparation (490)
 - Windbreak/Shelterbelt Establishment (380)
- Soil Erosion: Streambank, Shoreline, Water Conveyance Channels
 - Conservation Cover (327)
 - Critical Area Planting (342)
 - Diversion (362)
 - Field Border (386)
 - Grade Stabilization Structure (410)
 - Grassed Waterway (412)
 - Riparian Forest Buffer (391)
 - Riparian Herbaceous Cover (390)
 - Streambank and Shoreline Protection (580)
 - Subsurface Drain (606)
 - Tree/Shrub Establishment (612)
 - Underground Outlet (620)
- Soil Erosion: Wind Erosion
 - Conservation Cover (327)
 - Cover Crop (340)
 - Critical Area Planting (342)
 - Drainage Water Management (554)
 - Field Border (386)
 - Forage and Biomass Planting (512)
 - Irrigation Water Management (449)
 - Mulching (484)
 - Residue and Tillage Management, No-Till (329)
 - Residue and Tillage Management, Reduced (345)
 - Riparian Forest Buffer (391)
 - Riparian Herbaceous Cover (390)
 - Stripcropping (585)
 - Subsurface Drain (606)
 - Tree/Shrub Establishment (612)
 - Tree/Shrub Site Preparation (490)
 - Windbreak/Shelterbelt Establishment (380)
- Soil Quality Degradation: Compaction

- Conservation Cover (327)
- Cover Crop (340)
- Critical Area Planting (342)
- Drainage Water Management (554)
- Field Border (386)
- Forage and Biomass Planting (512)
- Nutrient Management (590)
- Residue and Tillage Management, No-Till (329)
- Residue and Tillage Management, Reduced (345)
- Riparian Forest Buffer (391)
- Riparian Herbaceous Cover (390)
- Subsurface Drain (606)
- Tree/Shrub Establishment (612)
- Tree/Shrub Site Preparation (490)
- Windbreak/Shelterbelt Establishment (380)
- Soil Quality Degradation: Organic Matter Depletion
 - Conservation Cover (327)
 - Contour Buffer Strips (332)
 - Contour Farming (330)
 - Cover Crop (340)
 - Critical Area Planting (342)
 - Drainage Water Management (554)
 - Field Border (386)
 - Filter Strip (393)
 - Forage and Biomass Planting (512)
 - Grassed Waterway (412)
 - Irrigation Water Management (449)
 - Mulching (484)
 - Nutrient Management (590)
 - Residue and Tillage Management, No-Till (329)
 - Residue and Tillage Management, Reduced (345)
 - Riparian Forest Buffer (391)
 - Riparian Herbaceous Cover (390)
 - Stripcropping (585)
 - Subsurface Drain (606)
 - Tree/Shrub Establishment (612)
 - Tree/Shrub Site Preparation (490)
 - Windbreak/Shelterbelt Establishment (380)
- Water Quality Degradation: Elevated Water Temperature
 - Riparian Forest Buffer (391)
 - Riparian Herbaceous Cover (390)
 - Streambank and Shoreline Protection (580)
 - Structure for Water Control (587)
 - Tree/Shrub Establishment (612)
- Water Quality Degradation: Excess Pathogens and Chemicals from Manure, Bio-solids or Compost Applications in Groundwater
 - Conservation Cover (327)
 - Contour Buffer Strips (332)
 - Cover Crop (340)
 - Drainage Water Management (554)
 - Filter Strip (393)
 - Irrigation Pipeline (430)
 - Irrigation System, Microirrigation (441)
 - Irrigation Water Management (449)
 - Karst Sinkhole Treatment (527)
 - Nutrient Management (590)
 - Riparian Forest Buffer (391)
 - Riparian Herbaceous Cover (390)
 - Sediment Basin (350)
 - Subsurface Drain (606)
 - Tree/Shrub Establishment (612)
 - Well Decommissioning (351)
- Water Quality Degradation: Excess Pathogens and Chemicals from Manure, Bio-solids or Compost Applications in Surface Water
 - Conservation Cover (327)
 - Contour Buffer Strips (332)

- Contour Farming (330)
- Cover Crop (340)
- Diversion (362)
- Drainage Water Management (554)
- Field Border (386)
- Filter Strip (393)
- Forage and Biomass Planting (512)
- Grassed Waterway (412)
- Irrigation Pipeline (430)
- Irrigation System, Microirrigation (441)
- Irrigation Water Management (449)
- Karst Sinkhole Treatment (527)
- Nutrient Management (590)
- Residue and Tillage Management, No-Till (329)
- Residue and Tillage Management, Reduced (345)
- Riparian Forest Buffer (391)
- Riparian Herbaceous Cover (390)
- Sediment Basin (350)
- Streambank and Shoreline Protection (580)
- Stripcropping (585)
- Tree/Shrub Establishment (612)
- Underground Outlet (620)

Water Quality Degradation: Excessive Sediment in Surface Water

- Conservation Cover (327)
- Contour Buffer Strips (332)
- Contour Farming (330)
- Cover Crop (340)
- Critical Area Planting (342)
- Diversion (362)
- Field Border (386)
- Filter Strip (393)
- Forage and Biomass Planting (512)
- Grade Stabilization Structure (410)
- Grassed Waterway (412)
- Irrigation Pipeline (430)
- Irrigation System, Microirrigation (441)
- Irrigation Water Management (449)
- Karst Sinkhole Treatment (527)
- Lined Waterway or Outlet (468)
- Mulching (484)
- Residue and Tillage Management, No-Till (329)
- Residue and Tillage Management, Reduced (345)
- Riparian Forest Buffer (391)
- Riparian Herbaceous Cover (390)
- Sediment Basin (350)
- Streambank and Shoreline Protection (580)
- Stripcropping (585)
- Structure for Water Control (587)
- Subsurface Drain (606)
- Tree/Shrub Establishment (612)
- Tree/Shrub Site Preparation (490)
- Windbreak/Shelterbelt Establishment (380)

Water Quality Degradation: Nutrients in Groundwater

- Conservation Cover (327)
- Contour Buffer Strips (332)
- Contour Farming (330)
- Cover Crop (340)
- Critical Area Planting (342)
- Denitrifying Bioreactor (605)
- Diversion (362)
- Drainage Water Management (554)
- Field Border (386)
- Filter Strip (393)
- Irrigation System, Microirrigation (441)
- Irrigation Water Management (449)
- Karst Sinkhole Treatment (527)

- Lined Waterway or Outlet (468)
- Mulching (484)
- Nutrient Management (590)
- Residue and Tillage Management, No-Till (329)
- Riparian Forest Buffer (391)
- Riparian Herbaceous Cover (390)
- Sediment Basin (350)
- Subsurface Drain (606)
- Tree/Shrub Establishment (612)
- Well Decommissioning (351)
- Windbreak/Shelterbelt Establishment (380)
- Water Quality Degradation: Nutrients in Surface water
 - Conservation Cover (327)
 - Contour Buffer Strips (332)
 - Contour Farming (330)
 - Cover Crop (340)
 - Critical Area Planting (342)
 - Denitrifying Bioreactor (605)
 - Drainage Water Management (554)
 - Field Border (386)
 - Filter Strip (393)
 - Forage and Biomass Planting (512)
 - Grassed Waterway (412)
 - Irrigation Pipeline (430)
 - Irrigation System, Microirrigation (441)
 - Irrigation Water Management (449)
 - Karst Sinkhole Treatment (527)
 - Mulching (484)
 - Nutrient Management (590)
 - Residue and Tillage Management, No-Till (329)
 - Residue and Tillage Management, Reduced (345)
 - Riparian Forest Buffer (391)
 - Riparian Herbaceous Cover (390)
 - Saturated Buffer (604)
 - Sediment Basin (350)
 - Streambank and Shoreline Protection (580)
 - Stripcropping (585)
 - Subsurface Drain (606)
 - Tree/Shrub Establishment (612)
 - Windbreak/Shelterbelt Establishment (380)
- Water Quality Degradation: Pesticides in Groundwater
 - Conservation Cover (327)
 - Contour Farming (330)
 - Cover Crop (340)
 - Diversion (362)
 - Drainage Water Management (554)
 - Field Border (386)
 - Filter Strip (393)
 - Irrigation System, Microirrigation (441)
 - Irrigation Water Management (449)
 - Karst Sinkhole Treatment (527)
 - Riparian Forest Buffer (391)
 - Riparian Herbaceous Cover (390)
 - Sediment Basin (350)
 - Subsurface Drain (606)
 - Tree/Shrub Establishment (612)
 - Tree/Shrub Site Preparation (490)
 - Well Decommissioning (351)
- Water Quality Degradation: Pesticides in Surface Water
 - Conservation Cover (327)
 - Contour Buffer Strips (332)
 - Contour Farming (330)
 - Cover Crop (340)
 - Diversion (362)
 - Drainage Water Management (554)
 - Field Border (386)

Filter Strip (393)
Forage and Biomass Planting (512)
Grassed Waterway (412)
Irrigation System, Microirrigation (441)
Irrigation Water Management (449)
Karst Sinkhole Treatment (527)
Mulching (484)
Residue and Tillage Management, No-Till (329)
Residue and Tillage Management, Reduced (345)
Riparian Forest Buffer (391)
Riparian Herbaceous Cover (390)
Sediment Basin (350)
Stripcropping (585)
Subsurface Drain (606)
Tree/Shrub Establishment (612)
Tree/Shrub Site Preparation (490)
Underground Outlet (620)
Windbreak/Shelterbelt Establishment (380)

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