

MDA BMP Functional Equivalents

Update

WTWG 10/7/13

Executive Order 12508

- In January of 2009, President Obama issued Executive Order (EO) 12508 on the Chesapeake Bay.
- May 12, 2010, the EO Strategy was released by the Federal Leadership Committee for the Chesapeake Bay.
- One of the issues in the Strategy was for USDA to assist states to get a full accounting of conservation practices both cost and non-cost shared practices (sometimes called voluntary practices) that have been implemented in the Bay Region.
- USDA was to take the lead and in December 2010 a contract was awarded to the National Association of Conservation Districts (NACD) to: “Establish a reliable system to collect, verify and report data on the implementation of non-cost shared agricultural conservation practices in the Chesapeake Bay area to the Bay Program Model.”

State Action from NACD Effort

- Bay states reviewed options AND decided to each develop their own system for verification.
- To date some states collect and report Non-cost shared BMPs meeting NRCS standards.
- MD is the only state to move forward establishing a process to verify non-cost shared practices meeting NRCS standards and functional equivalent's (FE) data.
- In 2010, MDA developed a verification manual for 14 FE BMP's based on work in the USDA Upper Chester River Showcase Watershed.
- The MDA verification manual was tested in Howard County and then released to all Districts in September 2011. It was updated in March of 2013.
- To date, about 100 FE practices have been reported using this manual in CONTRACK.

Why is it important to document Functional Equivalents?

- ◆ Watershed organizations, Environmental organizations, Conservation Organizations and NGOs are all helping Farmers and Agricultural Landowners to meet WIP goal and protect water quality by installing BMPs:
 - ✓ Chesapeake Bay Foundation - Stream exclusion fencing with narrow width tree plantings
 - ✓ Nanticoke Watershed Association- 10' Buffers on Drainage Ditches
 - ✓ Chester River Association- Switch grass plantings for field buffers
 - ✓ Middle Choptank River Association- Water Control Structures on Field Ditches
- ◆ Framers and Agricultural landowners install lots of BMP's outside of state cost share programs or cannot accept a government subsidy:
 - ✓ Plain Sect Farmers, Mennonite Farmers
 - ✓ Chesapeake Farms-Queen Anne's County
 - ✓ Tudor Farms-Dorchester County
- ◆ Maryland Regulations require farmers to install practices that provide water quality protection objectives and need to be verified for compliance but are not required to meet NRCS spec:
 - ✓ Stream Exclusion (fencing)
 - ✓ 10' and 35' buffers for fertilizer and manure application
- ◆ MDA needs a mechanism to document and verify that they meet a performance standard and the intended purpose (water quality protection).

Recommendations from July 2013 AgWG Meeting:

- In July, MDA requested that the AgWG start the process to approve a methodology to accept Non-Cost shared FE practices in NEIEN.
- The AWG told MDA to move forward with two assumptions:
 - All approved FE practices will receive the same effectiveness ratings as the federal or state cost shared practices. Buffers would be reported by width.
 - Depending on FE Criteria, FE's may need to have shorter lifespans for certification and re-certification.

Actions To Date

MDA has strengthen the MDA FE verification manual definitions and worksheets, the following actions have been taken to date:

- **August 2013-**

- ✓ Review of Verification Worksheets by a District Professional Engineer and Certified Professional Agronomist/Crop Advisor. Created a new format for worksheets showing NRCS practice specifications and FE specifications.
- ✓ Met with MDA staff on proposed structure of worksheets and manual. Received approval to move forward.
- ✓ Update to AgWG

Actions To Date

- **September 2013-**

- ✓ Reviewed Final Worksheets and Manual with MDA staff.
- ✓ Reviewed all practice worksheets and made changes; finalized FE practice names; and FE lifespans for recertification.
- ✓ Proposed Worksheets were reviewed by District personnel in Caroline, Howard, and Washington Soil Conservation Districts. Clarifying changes were made and approved by MDA.
- ✓ Update to AgWG
- ✓ MDA received guidance from WQGIT to complete the process for AWG approval.

How Were Critical Design Components for FE Standards Determined?

- **All critical NRCS Standard design components for 15 BMP's were listed and considered for a FE.**
- **Critical Design Components of FE were determined by:**
 1. Is it required by Federal or State Law? (State Law criteria is in addition to the NRCS criteria).
 2. Is it required for safe functioning of the practice?
 3. Is it required for the practice to provide resource protection?
 4. Owner Certification will be required for satisfaction of design criteria of components that are not obvious and for operations and maintenance.
- **The process for District reporting includes:**
 1. Trained District personnel will report all Non-Cost shared practices after a field visit by documenting a verification worksheet and taking a picture. The worksheet and picture will be stored the the District Conservation Plan and reported in CONTRACK.
 2. Some FE standards have more than one reportable code to record the appropriate buffer width or type of animal. The FE practices have a different (but similar) names to distinguish them from Non-cost shared practices that meet a NRCS standard.
 3. FE Standards have a reduced lifespan and will be recertified at the end of FE lifespan.
 4. Districts will be provided a list of practices whose lifespan is expiring to recertify in July in the preceding year and will be re-checked during the next calendar year for recertification.

15 Non-Cost shared Practices are Reportable

MDA Functional Equivalent Codes/Names

- MDA 313FE Waste Storage Structure
- MDA 316FE Animal Compost Structure
- MDA 327FE Alternative Crop/Switchgrass
- MDA 382FE Watercourse Fence
- MDA 390FE Grass Buffer for Stream
(390FE1: 10'-20' wide, 390FE2: 20'-35' wide)
- MDA 391FE Forest Buffer for Stream
(391FE1: 10'-20' wide, 391FE2: 20'-35' wide)
- MDA 412FE Grassed Water Conveyance
- MDA 422FE Veg. Env. Buffer for Poultry
- MDA 512FE Pasture and Hayland Planting
- MDA 528FE Rotational Grazing
- MDA 558FE Barnyard Runoff Control
- MDA 561FE Concentrated Area Protection
(561FE1: Livestock, 561FE2: Poultry)
- MDA 587FE Water Control Structure
- MDA 614FE Watering Trough
- MDA 657FE Wetland Development

NRCS Standard Codes/Names

- NRCS 313 Waste Storage Facility
- NRCS 316 Animal Mortality Facility
- NRCS 327 Conservation Cover
- NRCS 382 Fence
- NRCS 390 Riparian Herbaceous Cover
- NRCS 391 Riparian Forest Buffer
- NRCS 412 Grassed Waterway
- NRCS 422 Hedgerow Planting
- NRCS 512 Forage and Biomass Planting
- NRCS 528 Prescribed Grazing
- NRCS 558 Roof Runoff Structure
- NRCS 561 Heavy Use Area Protection
- NRCS 587 Structure for Water Control
- NRCS 614 Watering Facility
- NRCS 657 Wetland Restoration

	<u>NRCS Specification</u> <u>512-Forage & Biomass Planting</u>	<u>MDA FE Specification</u> <u>512FE Pasture & Hayland Planting</u>				
<u>Spec date:</u>	5/1/2013	Installation Date: 3/1/13				<u>FE Supporting Data & Documentation</u>
<u>Life span:</u>	NRCS-5yrs FE-3yrs					Employee records installation date, checks appropriate boxes , circles decision, documents and dates
<u>Criteria Test:</u>	NRCS Criteria	MDA FE Criteria	n/a	Y	N	
<u>1</u>	Plants are non-invasive	Plants are non-invasive		X		Visual inspection
<u>2</u>	Lime & fertilizer rates are based on soil tests.	Lime & fertilizer rates are based on soil tests *		X		Owner interview
<u>3</u>	Area complies with state nutrient management regulations.	Area complies with state nutrient management regulations*		X		Owner interview
<u>4</u>	All areas utilize certified seed.					
<u>5</u>		75% cover is established and maintained as "pasture in good condition".		X		Visual inspection
9 STEPS TOTAL						
<u>Materials Test: 9</u>	Plants are either native or non-invasive introduced	Plants are either native or non-invasive introduced		X		Visual inspection
<u>Maintenance Test:10</u>	Owner has and follows maintenance plan.	Owner has and follows maintenance plan. *				Owner interview
	Meets NRCS Spec	Meets FE Standard				CIRCLE APPROPRIATE FINDING
	*-per owner's certification-corn field est. in fescue/clover pasture, 90% cover	Certification Date: 9/26/13 DDY Recertification Date:				

Next Steps

- Re-write FE Verification Manual with final definitions and worksheets. Submit with required CBP documentation for final approval by AWG
- Submit FE BMP's for addition to NEIEN Appendix (turned off until approved): CBP programs FE's in 5.3.2 CBP Model
- Add FE's to all data collection sheets used in Maryland- WIP, FSCAP, MDNTT, Certainty
- In-Service Training for all District Employees

Questions?