On Behalf of the AgWG Resource Improvement Technical Review Panel:

"CBP RI Definitions and Verification Visual Indicators Report" and "Technical Submission Document"

Bob Ensor, Chair

8/7/14

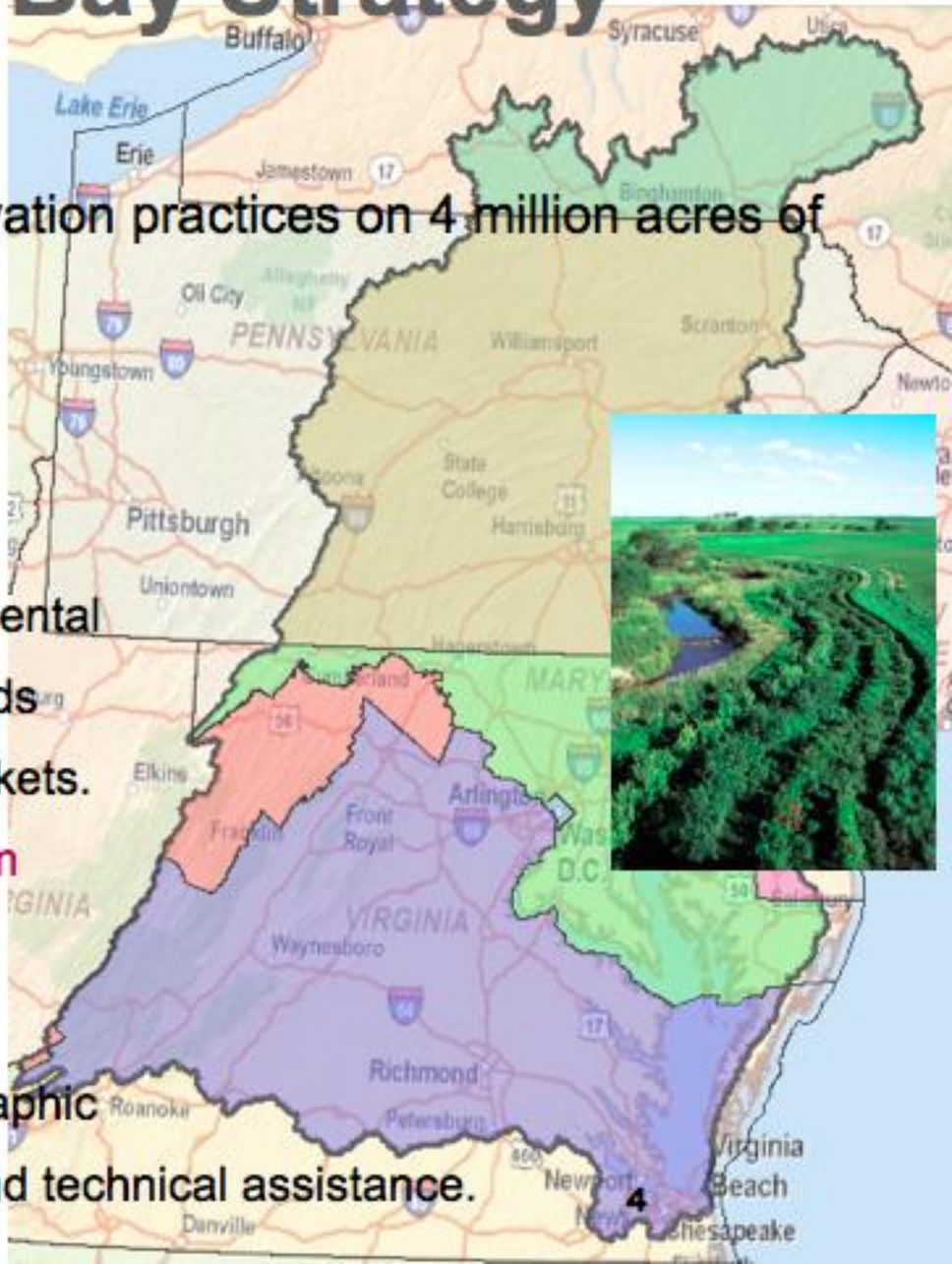
Chesapeake Bay Strategy

USDA 2011 Strategy

Key Goal: implement new conservation practices on 4 million acres of agricultural lands by 2025.

Key Actions:

- Target CBWI funding to priority watersheds and priority practices.
- Lead an interdepartmental Environmental Market Team to develop the standards and protocols for environmental markets.
- Work to improve the reporting system for all conservation practices.
- Establish Showcase watersheds to demonstrate results in limited geographic areas through increased outreach and technical assistance.



The RI Development and Verification Timeline in Review

- One of the task USDA completed to meet the EO was to contract with NACD to assist states to develop methods to capture and report non-cost shared BMPs. (December 2010 to August 2011) States gained valuable insight from this project but only MD and VA pursued the initiative.
- MDA created, tested and updated 3 versions of verification manuals for Functional Equivalents 2011-2013 and submitted the last Version to the AgWG in July of 2013 for approval. In the Fall of 2013 the WQGIT requested the AgWG complete a Technical Review.
- In December 2013 the Technical Panel was selected.
- The Technical Panel met and had teleconferences and made many significant changes creating a "Jurisdictional Neutral Report Document" that was presented to the AgWG in June of 2014. Comments were provided and the Technical Review Panel reviewed and made the appropriate changes from comments (7-10-14).
- The Report was presented to AgWG on 7-24-14. AgWG approved the document except for 2 RI's which were changed based on comments from VA. The Final Report was approved by the AgWG on 8-8-14.
- The WTWG approved the document on 8-7-14.

Technical Review Panel Members

Technical Review Panel Members	Affiliation
Robert Ensor – Panel Chair	District Manager, Howard SCD-MD
Debbie Absher	Director of Ag Programs, SCD-DE
Gary Moore	Ag Incentives Program Manager, DCR-VA
Lamonte Garber	Watershed Restoration Coordinator Stroud Water Research Center, PA
Beth McGee	Sr. WQ Scientist Chesapeake Bay Foundation, MD
Greg Albrecht	NYS Department of Agriculture and Markets-NY
Elmer Weibley	District Manager, Washington County SCD- MD
Charlie Wootton	TMDL Conservation Specialist, Piedmont SWCD- VA
Jeff Hill	Agriculture Program Manager, Lancaster County SCD-PA
NRCS Members In an Advisory Role	
Hosea Latshaw	State Conservation Engineer NRCS-PA
Larry Tennity	State Conservation Engineer NRCS-DE
Ann Baldwin	Environmental Engineer NRCS-MD
Sally Kepfer	State Resource Conservationist, NRCS-DE
Dale Gates	Resource Conservationist NRCS-NY
Other Advisors	
Mark Dubin	University of Maryland
Emma Giese	Chesapeake Research Consortium
Dana York	Green Earth Connection

Resource Improvement Practice Definition

"Resource Improvement BMP's are practices which provide similar annual environmental benefits for water quality but may not fully meet all the design criteria of existing governmental design standards.

RI BMP's are usually identified during a visit with the farmer. RI BMP's are implemented by a farmer and are not cost shared through a federal or state program. RI BMP's can be the result of a farmer choosing not to completely follow all the details of the design standard from the District or NRCS, but will contain all the critical elements for water quality resource improvement.

Approved CBP RI BMP's definitions contain descriptions of the practice with Visual Indicators. A Visual Indicator is a means of assessing the presence of key elements that must be present to achieve the water quality benefits of the RI practice and to be reported in Jurisdictional WIPs.

The re-verification interval of an agricultural Resource Improvement BMP may be more frequent than practices meeting state or federal programs to insure proper functioning."

Final 19 Resource Improvement Practices

	RI BMP Name	Additional Practice Information
RI-1	Dry Waste Storage Structure	
RI-2	Animal Compost Structure	
RI-3	Alternative Crop/Switchgrass	
RI-4a	Watercourse Access Control-Narrow Grass	10'-34' Exclusion Area, Natural Grass or planted
RI-4b	Watercourse Access Control-Narrow Trees	10'-34' Exclusion Area, Native Trees or planted
RI-5	Watercourse Access Control--Grass	35'+ Width Exclusion Area, Natural Grass or planted
RI-6	Watercourse Exclusion-Trees	35'+ Width Exclusion Area, Native Trees or planted
RI-7	Grass Nutrient Exclusion Area on Watercourse	10'-34' Width Buffer
RI-8	Grass Buffer on Watercourse	35'+ Width Buffer
RI-9	Forest Nutrient Exclusion Area on Watercourse	10'-34' Width Buffer
RI-10	Forest Buffer on Watercourse	35'+ Width Buffer
RI-11	Vegetative Environmental Buffer for Poultry-Grass	Warm Season Grass
RI-12	Vegetative Environmental Buffer for Poultry- Trees	Trees
RI-13	Conversion to Pasture	
RI-14	Conversion to Hayland	
RI-15	Rotational Grazing	
RI-16	Barnyard Clean Water Diversion	
	~~Concentrated Area Protection~~	**Removed by Technical Panel**
RI-17	Water Control Structure	
RI-18	Watering Trough	
	~~Wetland Development~~	**Removed by Technical Panel**

Key Principles of Resource Improvement Practices

- VI's are usually found in the field when working with farmers. RI's must be evaluated against and meet the approved RI definition and Visual Indicators (VI) to be reported.
- The Report contains example worksheets to document VI's. States may design their own worksheet sheet as long as it has the required elements as required in the Report.
- All Visual Indicators must either have a Y or NA marked. If a N is marked it may not be reported.

RI Definition Example RI-13,14

RI-13,14: CONVERSION TO PASTURE OR HAYLAND Resource Improvement Practice Definition

Reportable Units: Acres

DEFINITION

Conversion of cropland to pasture or hayland for the purpose of forage production through the establishment of native or introduced forage species.

PURPOSES

This practice may be applied to establish forage species for the purposes of forage production, primarily intended for grazing or harvesting, which may balance forage supply, reduce soil erosion and improve water quality.

CONDITIONS WHERE PRACTICE APPLIES

This practice may be applied on cropland or other agricultural lands where forage production is feasible or desired. This only applies where grazing or harvesting is the primary consideration.

CRITERIA

Select forage species for planting based on the intended use, realistic yield goals, maturity stages, compatibility with other species, and level of management that the client is willing and able to provide. This is intended for multi-year hay crops with a minimum life span of at least 3 years.

Select plants that will provide adequate perennial ground cover of at least 75% cover, root mass, and resistance to water flow when site conditions require erosion protection.

Removal of herbage should be consistent with site production limitations, rate of plant growth, and the physiological needs of specific forage plants to maintain plant reserves for regrowth, winter survival, and drought survival.

OPERATION AND MAINTENANCE

Re-verification of the plantings is required at least every 3 years for practices meeting RI specifications.

SUPPORTING DATA AND DOCUMENTATION

Complete accompanying checklist; Visual Documentation of the practice (picture or drawing); and document on conservation plan map or aerial photo of farm.

Reference Practices: CBP- Land Retirement to Pasture (LandRetirePast), Land Retirement to Hay Without Nutrients (LandRetireHYO); NRCS- 512 Forage and Biomass Planting

Visual Indicator Checklist Example

	RI-13,14 Practice: Conversion to Pasture or Hayland				Supporting Data/ Documentation:
	Re-Verification Interval : 3 years	Y	N	N/A	
	RI-13,14 Visual Indicators				
1	Lime & fertilizer rates are applied according to state regulations				Owner Interview
2	75% perennial grass cover is established and maintained as “pasture or hayland in good condition"				Visual Observation
3	Plants are either native or non-invasive introduced				Visual Observation
	Meets RI-13,14 Visual Indicators				
	RI Installation Date:				
	RI-13,14 Reportable Units: Acres				
	RI-13=Conversion to Pasture Acres:				
	RI-14=Conversion to Hayland Acres:				
	CERTIFICATION DATE/INITIALS:				
	RECERTIFICATION DATE/INITIALS:				
	All Visual Indicators must either have a Y or NA marked. If an N is marked on the checklist, the RI may not be reported until the deficiency is addressed.				
	Additional Notes/Documentation about RI:				

Key Principles of Resource Improvement Practices

- "Re-verification Intervals" have been established for RIs. A RI will have to be re-visited at the approved interval to determine if the RI is still present and functioning to remain in the Database.
- Acceptable Verification Methods for RI's are found in the AgWG Verification Guidance Document. All RI's must be seen "on the ground" by a Jurisdictionally approved entity for initial reporting and re-verification.

Key Principles of Resource Improvement Practices

- Modifications to Approved VI's- Jurisdictions are allowed to make individual VI's stricter than the approved definitions per state program requirements, regulations, etc. Where "state or local regulations or requirements" are mentioned in VIs, jurisdictions may insert specific state regulations or requirement references. A jurisdiction may not make a VI less restrictive or weaker than found in the approved CBP Report. If jurisdictions wish to propose less restrictive VI's or additional RI's, they must be first reviewed and approved following the AgWG and CBP approval process.
- VI's will receive the appropriate associated CBP credit- ie. *Nutrient Availability, Landuse Change or Efficiency Reduction*- once a jurisdiction implements the CBP approved RI guidance in their state.

Questions?