

Maximizing Conservation & Community Benefits of Agriculture Preservation

Creating a New Comprehensive & Continuous Program



Rob Schnabel, Maryland Restoration Scientist
Chesapeake Bay Foundation

New Healthy Forests and Trees Outcome

Conserve, manage and restore forests and tree cover to maximize benefits for water quality, habitat and people throughout the watershed, with a particular focus on riparian areas and communities.



TARGETS

Tree Canopy: Conserve tree canopy within communities by reducing the rate of loss of existing canopy and planting and maintaining 45,000 acres of community trees by 2040 to achieve a net gain in canopy over the long term.

Forest Buffers: Conserve riparian forest by reducing the rate of loss of existing buffers and planting and maintaining 7,500 acres of forest buffers annually to achieve no less than 71.5% riparian forest cover by 2040 and 75% riparian forest cover over the long term.

Forest Conservation: Achieve a net gain in forests over the long-term by reducing the rate of forest conversion to other land uses by 33%, permanently protecting a total of 9 million acres of forested land, and planting, maintaining and managing 202,000 acres of new forests by 2040.

Big Time Goals!

Plant 7,500 Acres per Year and cut losses in half

(Losing 5,587 Acres per Year)

Forested Stream Buffers Stream Health IBI

79% Excellent
72% Good
70% Fair
63% Poor

Maryland at 61%

Need all the Tools:

- Ag Preservation
- CREP / CBI / FCCP?
 - MS4, etc.

Maryland MS4 Acres ~ 300,000 acres What are the Bay-wide MS4 Acres?



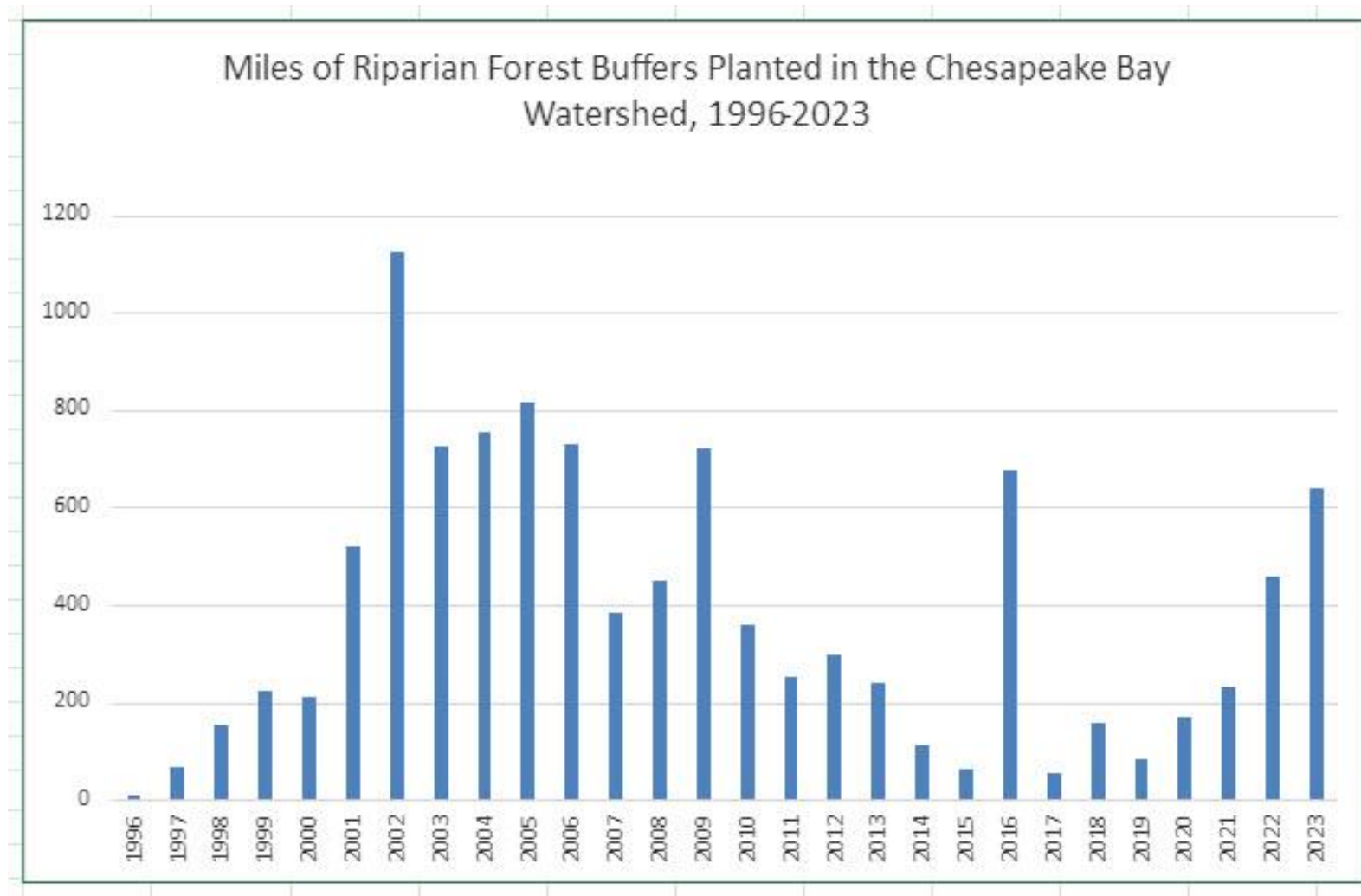
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Bay-wide Preservation & Forest Buffers

Riparian Buffers Good News / Bad News What to do?



Rob Schnabel



The Good News

Big Planting years in 2022
and 2023



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Forest Buffers Planted 1996 - 2023

Riparian Forest Cover Within a 100-Foot Buffer From Stream Network

Jurisdiction	Riparian Land Area	Forest Cover Acres, 2013/2014	Forest Cover %, 2013/2014	Forest Cover Acres, 2017/2018	Forest Cover %, 2017/2018	Net Change in Acres	Net Change in %
DE	55,140	30,806	55.9%	30,591	55.5%	-214	-.39%
DC	1,737	920	53.0%	909	52.3%	-11	-.62%
MD	689,035	407,298	59.1%	405,852	58.9%	-1,445	-.21%
NY	331,622	209,272	63.1%	209,420	63.2%	148	+.04%
PA	1,422,902	984,794	69.2%	981,475	69.0%	-3,319	-.23%
VA	1,879,844	1,386,640	73.8%	1,370,811	72.9%	-15,829	-.84%
WV	269,915	203,816	75.5%	202,743	75.1%	-1,073	-.40%
Total Watershed	4,650,195	3,223,546	69.3%	3,201,802	68.9%	-21,743	-.47%

The Bad News
Losing more than Gaining

Losing over 5,500 acres
per year 100 foot buffer

Watershed lost 21,743 acres

These numbers are per [Forest Buffers - Chesapeake Progress](#)



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Forest Buffer Loss 2013 - 2018

Maryland Land Preservation Plan

Public Comment period through June 28, 2026

Agriculture

Goal of 1,030,000 Acres

945,492 March 2026

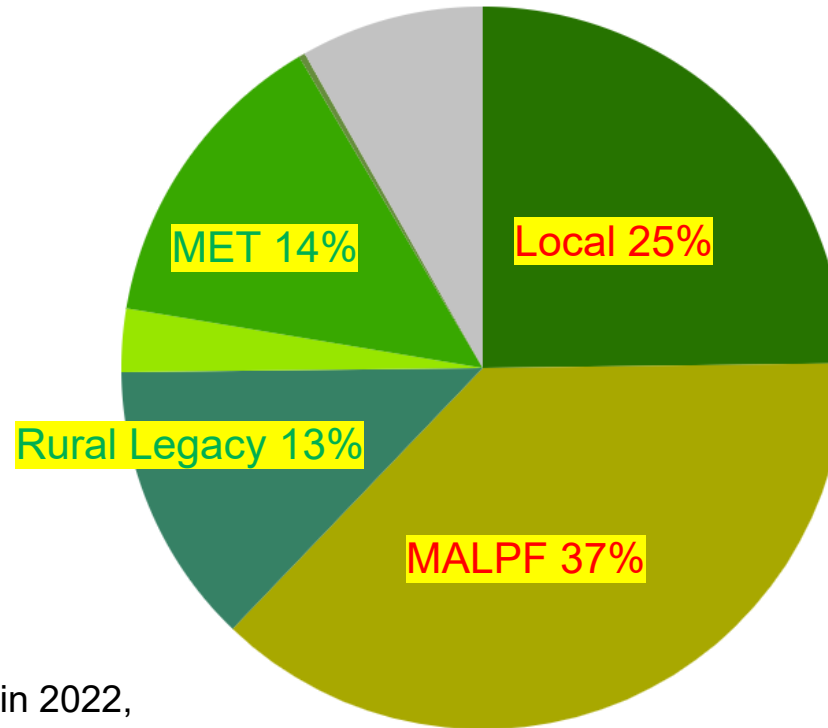
84,508 To go

Overall Preservation

30 x 30 = 1,908,894 May 2025

40 x 40 = 2,339,772 Acres

Agriculture land preservation goal was set in 2022,
at that time, it was half of State Farmland.



Local PDR/TDR	255,395	} 62%
MALPF	384,928	
Rural Legacy	130,305	} 32%
GreenPrint	29,090	
MET	142,928	
MARBIDCO	2,846	
Acres Needed to Meet Goal	84,508	

[Per Dashboard](#)



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Maryland Agriculture Preservation Goal

Maryland Land Preservation Plan

Forest Conservation: Achieve a net gain in forests over the long-term by reducing the rate of forest conversion to other land uses by 33%, **permanently protecting a total of 9 million acres of forested land**, and planting, maintaining and managing 202,000 acres of new forests by 2040.

Jurisdiction	Acres of Protected Forest	Total Acres of Protected Land	Percent of Protected Lands in forest
Delaware	70,235	130,606	54%
DC	4,926	8,386	59%
Maryland	929,874	1,700,266	55%
New York	276,967	307,393	90%
Pennsylvania	3,023,979	3,688,214	82%
Virginia	2,493,238	3,118,595	80%
West Virginia	304,689	319,921	95%
Watershed	7,103,907	9,273,380	77%

Maryland the
Lowest
% Forest
on our
Protected Lands

Data: Sophie Waterman USGS and Katie Brownson US Forest Service



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Bay Program Protected Lands Data

Forest Conservation: Achieve a net gain in forests over the long-term by reducing the rate of forest conversion to other land uses by 33%, permanently protecting a total of 9 million acres of forested land, and planting, maintaining and **managing** 202,000 acres of new forests by 2040.

State	# of FSP Plans	Acres in FSP Plans	FSP Plan Implementation %	Acres of FSP Sustainably Managed
DE	93	10,819	84.41%	9,132
MD	8,534	798,423	85.78%	684,903
NY	505	70,624	65.50%	46,260
PA	414	107,645	39.34%	42,347
VA	1,519	285,208	81.24%	231,707
WV	276	69,567	83.49%	58,079
TOTAL	11,341	1,342,285	70.95%	952,364

Maryland the Highest Forest Stewardship Plans

- In Acres
- In % overall

Indicator of Sustainable Management

Data: Sophie Waterman USGS and Katie Brownson US Forest Service



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Bay Program US Forest Service Data

Program	Acres Preserved	# of Contracts
MALPF Easement	28,265	192
CREP Easement	4,496	45
MET Easement	4,694	53
ISTEA Easement	1,523	20
Rural Legacy Easement	8,218	57
IPP Easement	23,725	170
Federal FRPP Easement	496	4
Other Governmental Easement	2,818	14
County Held Easement	907	8
Critical Farms Option	1,409	7
MARBIDCO Next Generation	507	6
MARBIDCO SANG Easement	82	3
Catoctin Land Trust	305	10
Permanent Easement/Option Total:	77,445	589

Example: Frederick County

Largest Ag Acres – 188,000
Next Queen Anne Co. – 162,000

Goal 160,000 acres

Highest County Goal in Maryland

Currently 77,445

82,555 acres to go!

13 Programs

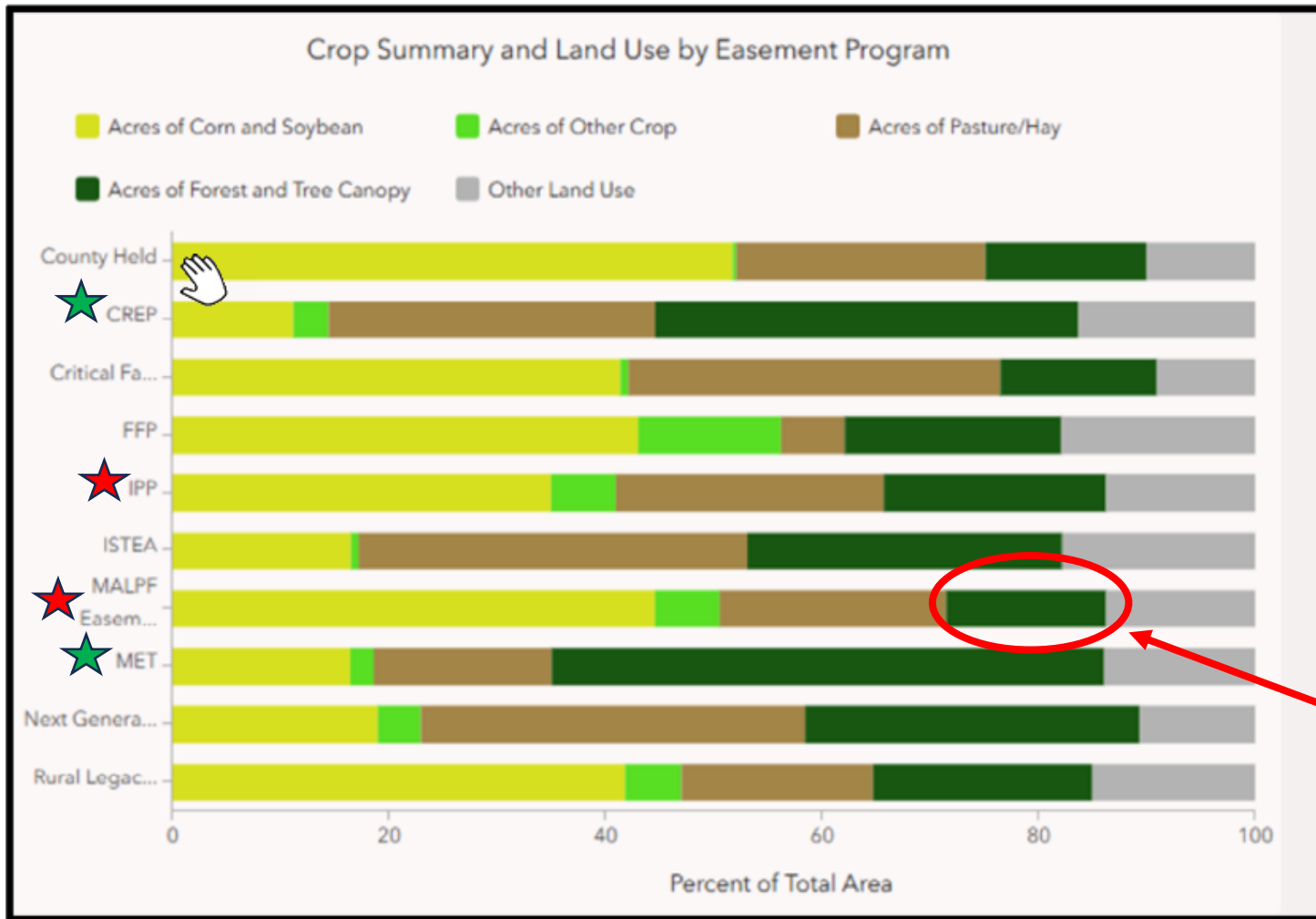
2 Programs = 67% Acres



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Frederick County Agriculture Permanent Easements
December 2025

Frederick County Agriculture Preservation 2022



Observations - Land use by Program

Corn / Soy are majority of most programs

Ranking criteria prioritizes;

- Soil type for corn & Tillable
= 40% Scoring Criteria
- Conservation only %5 Scoring
Criteria

IPP – Local Installment Purchase Program

More points for % farmed land, penalize if
have forest buffers

MALPF Lowest % Forest Cover
but greatest acres and State funding

MET & CREP programs prioritize
Conservation thus Forest cover majority



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Land use by Preservation Program

**MARYLAND AGRICULTURAL LAND PRESERVATION FOUNDATION PROGRAM
PRIORITY RANKING SYSTEM – 600 PTS MAXIMUM**

Name of Property Owner _____ Acres _____
Location of Property _____ Tax Map & Parcel _____

★	I.	SOIL POTENTIAL RATING	200 PTS MAXIMUM
		Soil score x 2	_____ PTS
★	II.	TILLABLE LAND OR CROPLAND	25 PTS MAXIMUM
		Acres of tillable cropland x .2	_____ PTS
	III.	PROXIMITY TO COMPREHENSIVE PLAN GROWTH AREA	25 PTS MAXIMUM
		-Within 1000 feet – 25 pts	_____ PTS
		-1001-2000 feet – 10 pts	
		-Beyond 2000 feet – 0 pts	
	IV.	DEVELOPMENT RIGHTS	100 PTS MAXIMUM
		5 pts per development right (max. of 50 pts)	_____ PTS
		50 pts bonus for original tract (max. of 50 pts)	
★	V.	SIZE OF PARCEL	50 PTS MAXIMUM
		Size of parcel x .15	_____ PTS
★	VI.	CONCENTRATION OF PRESERVED LAND	30 PTS MAXIMUM
		Within 500 feet of a minimum of 50 acres of permanently protected land; Acres of protected land x .06	_____ PTS
	VII.	OWNER/OPERATOR	20 PTS MAXIMUM
		-Applicant/operator/owner that earns a majority of their income from farming – 20 PTS	_____ PTS
		-Applicant/owner that rents a majority of their farm to a full time farmer – 10 PTS	
		-All others – 0 PTS	

APPROVED 3/26/2019

VIII. SOIL CONSERVATION PLAN ★

25 PTS MAXIMUM

-Soil Cons. Plan in owner's name addressing all aspects of soil and water conservation incl. best management practices; approved and fully implemented – 25 PTS

-Soil Cons Plan in owner's name addressing all aspects of soil and water conservation incl. best management practices; approved and is being implemented – 20 PTS

-Soil Cons. Plan in owner's name addressing all aspects of soil and water conservation incl. best management practices; approved – 10 PTS

-Soil Cons. Plan on which the schedule has not been followed fully. Or plan for property out of date or not in owner's name – 5 PTS

-No plan at time of application – 0 PTS

_____ PTS

IX. CRITICAL FARMS

25 PTS MAXIMUM

Property is a Critical Farms or MARBIDCO Next Generation property – 25 PTS

All others – 0 PTS

_____ PTS

X. PRIORITY PRESERVATION AREA

50 PTS MAXIMUM

Property is located within a Priority Preservation Area – 50 PTS

All others – 0 PTS

_____ PTS

TOTAL PTS BEFORE DISCOUNT BONUS

XI. DISCOUNT BONUS

50 PTS MAXIMUM

For every 1% discount the applicant is giving, they will receive 2 pts

_____ PTS

TOTAL PTS

600 Points Max

Scoring Criteria Favors

Corn / Soy
Bigger Farms
Adjacency

} Over 50% (305 +pts)

Conservation / Environment

} 4 %

No Forest Protection, clear trees for Cornfields

No Buffer requirement
(Rural Legacy program requires 100' buffers)

Counties may modify this ranking criteria

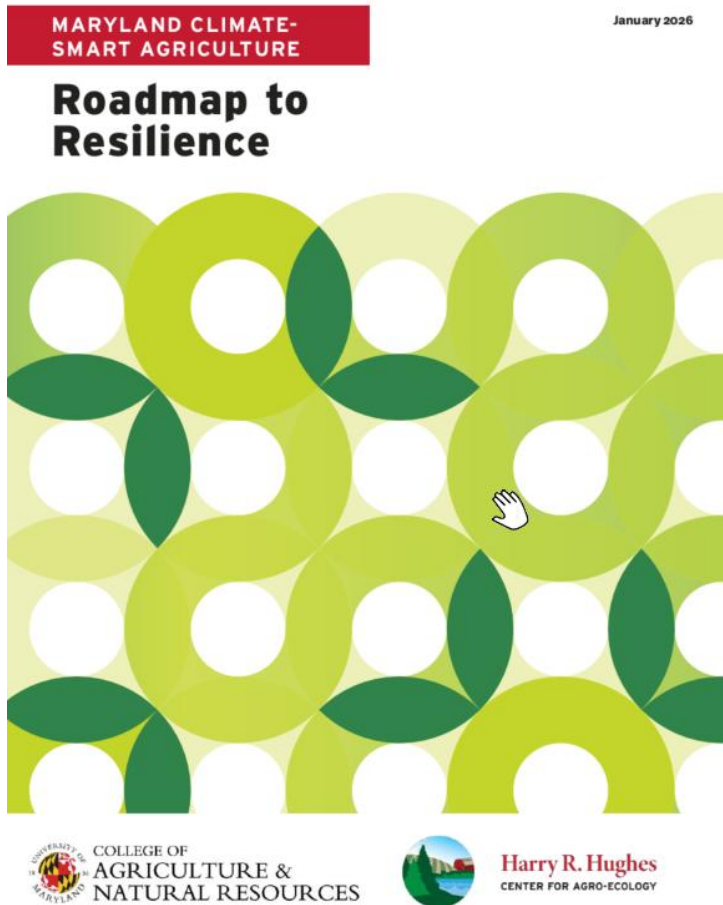


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MALPF Program Scoring Criteria In Frederick County

“Policies of the Past are not going to meet the needs of the Future”

Ernie Shea – Solutions from the land



Report Recommendations Based on Science and Stakeholder Feedback:

1. Adopt Climate-Smart Agriculture and Agroforestry Statewide

The Maryland State government, led by the MDA, along with all agricultural stakeholders and relevant state agencies, must adopt a climate-smart agriculture approach to farming and agroforestry. This approach should be an integral component of Maryland's climate implementation plans from relevant state agencies, as well as a guiding principle in the state's climate resiliency plan and strategy.

That approach prioritizes systems and programs that simultaneously address three outcomes:

- ✓ Sustainably increase agricultural productivity and incomes
- ✓ Increase the agricultural sector's resilience in the face of climate-related risks
- ✓ Reduce or offset greenhouse gas emissions and increase carbon sequestration in agricultural lands

3 Pillars of report

- GHG Reductions
- Resiliency
- Economics

**Agroforestry Critical
MDA just hired Specialist**



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Maryland Climate-Smart Agriculture - Roadmap to Resilience
Univ. of MD and Hughes Center for Agro-ecology
January 2026 Report

WHAT THE FUTURE HOLDS IN MARYLAND:

MORE HEAT:

POTENTIAL HEAT STRESS FOR PLANTS AND ANIMALS, SHIFTING PLANT HARDINESS ZONES, NEW INVASIVE PLANTS, AND PESTS.



more days above
86°F by 2026.



Avg annual temp has risen
4–5°F in the last 63 years
(5–10°F higher by the end
of the century).



Longer, more extreme
heat waves.



Declining corn productivity with
more yield limiting heat days.



28

more nights *above*
68°F means less
cooling relief from
heat stress to both
crops and animals.

DUMP AND DRY CONDITIONS:

DAMAGING STORMS, INCREASED IRRIGATION NEEDS,
FAVORABLE CONDITIONS FOR DISEASES AND PESTS.



3.5" more annual
rainfall = wet
conditions and
increased blights, rots,
and other diseases.



More intense rainfall
and damaging storms,
causing erosion and
runoff.



More frequent droughts –
reducing crop yields and
increasing irrigation needs.



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Climate Challenges

Maryland Climate – Smart Agriculture Roadmap to Resilience
Harry Hughes Center for Agro-Ecology January 2026

Maryland Existing Federal / State Agencies - Forest Buffer Planting Programs – Pros & Cons

Criteria	CREP	MD CBI*
Continuous Sign Up	Not Really	No
Implementation Funding – 75% up front	No	Yes
State funding leverages Federal funding	Yes	No
Bonus Payment - \$1,000 / acre	Yes	Yes
**Maintenance / Buffer Establishment Payments – 5 years	No	Yes
Rental Payments 10 – 15 years	Yes	No
Permanent Easement – new buffers grass or forest leverage pre-existing Currently 10:1 any cover, pasture or trees (no row crops)	Yes	No

*Maryland CBI – Conservation Buffer Initiative



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Existing Forest Buffer Programs Gaps in Programs

CREP Permanent Easement Program



Now available statewide!

Photo credit: Bob Schwartz,
Washington County forester

CREP Permanent Easement in MD

Provide Incentive for new buffer while protecting existing forest cover.

For every 1 acre of New buffer can protect 10 acres of pre-existing.

Example Plant 10 acres of forested riparian buffer can protect 100 acres of pre-existing.

Pre-existing needs to have permanent cover, either trees or pasture (no row crops).

Funding through Program Open Space.

Funding per acre varies from \$5,000 - \$8,000



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One Successful Model from Maryland

New Forest Continuous and Comprehensive Program to Meet New Bay Program Goals
Plant 7,500 acres while cutting loses, more than 5,500 per year, in half

Criteria	FCCP CREP +	MD CREP	MD CBI
Continuous Sign Up (No acre Caps)	X		
Implementation Funding – 75% up front	X		X
State funding leverages Federal funding	X	X	
Bonus Payment - \$1,000 / acre	X	X	X
Maintenance – “Buffer Establishment” Payments – 5 years	X		X
Permanent Easement – new buffers grass or forest leverage pre-existing Currently 10:1 any cover, pasture or trees		X	
Permanent Easement Forests – new Forest leverage pre-existing forest 5:1	X		



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Forests
Continuous Comprehensive Program

Maximizing Conservation & Community Benefits of Agriculture Preservation & New Program – FCCCP?

Discussion



Chesapeake Climate Conservation Corps - April 2024
Summers Farm Catoctin Creek – Frederick County

Beyond Sustainable – Regenerative Farm Tours

October 2024 / October 2025 / October 15, 2026

Partnerships



United States
Department of
Agriculture

Natural Resources Conservation Service

- Ecosystem Benefits (Water, Climate & Biodiversity)
- Resiliency and Economics
- Partnerships & Resources

Next Farm Tours
October 15th



Water Station



Rain Simulator – Water Infiltration & Retention



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Regenerative Farm Tours