



Maryland
Department of
the Environment

Commission for the Innovation and Advancement of Carbon Markets and Sustainable Tree Plantings

August 19, 2022
Regular Meeting



Meeting Agenda

- **2:00-2:10pm** - Welcome and updates
- **2:10-2:25pm** - MDA presentation
- **2:25-2:45pm** - Facilitated discussion and questions
- **2:45-3:00pm** - DNR presentation
- **3:00-3:20pm** - Facilitated discussion and questions
- **3:20-3:30pm** - Public comment



Work in Review

5 million Trees and Carbon Markets:

Implementation:

- CBT: Urban Trees Program
- MDA
- DNR
- MDOT
- NGO/Local Governments/Private Planting

Carbon Markets:

- What counts and what doesn't
- Tracking and Accounting

Challenges and Opportunities:

- Private financing
- Workforce development
- Maintenance and management
- Technical Assistance



**5 MILLION
TREES FOR
MARYLAND**



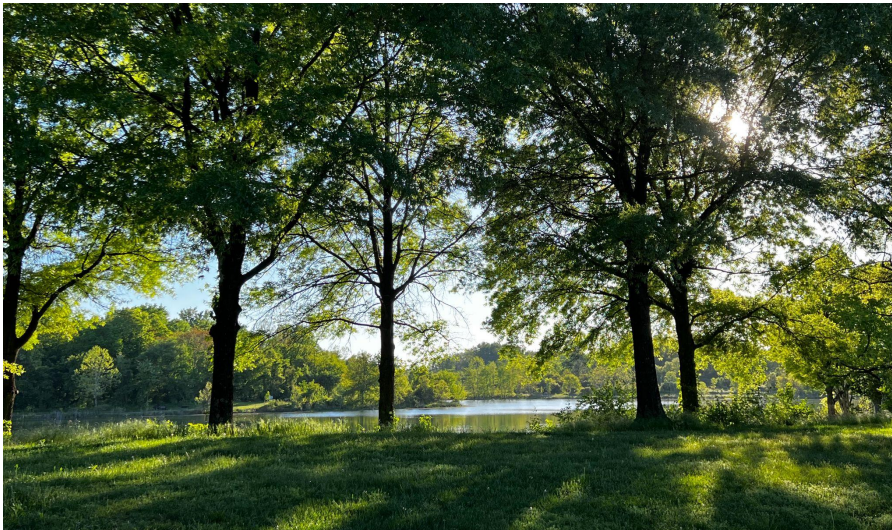
Proposed Plan Review Process

- **Thurs, Sept 1** - Commissioners receive full draft copy
- **Weds, Sept 7** - Written comments/completed survey due
- **Fri, Sept 9** - Facilitated discussion on key feedback themes
- **Fri, Sept 30** - Facilitated discussion on long-term maintenance
- **October** - Agencies will finalize plan based on Commission feedback and send through administrative review
- **By Oct 30** - MDE will publish and distribute plan
 - Governor and General Assembly
 - Full Commission



Celebration of Progress

- Friday, Oct 21 (no Commission meeting)
- Field visit to fall planting sites
- Hosted by CBT at funded projects
- More details to follow





Agricultural Tree Planting Programs

Support for the Tree Solutions Now Act | 5 Million Trees by 2031



An overview of Maryland's Conservation Reserve Enhancement Program (CREP)





Conservation Reserve Enhancement Program

Now in its 25th year, Maryland's CREP is a federal-state partnership program that pays landowners to take environmentally sensitive cropland out of production for 10 to 15 years and install conservation practices that protect water quality and provide wildlife habitat.





Conservation Reserve Enhancement Program

Farmers can receive attractive annual rental payments to take streamside property, certain highly erodible land or wetlands out of production and maintain **grass, shrubs, trees, or wetlands** for the life of the contract.





Conservation Reserve Enhancement Program

This completely voluntary program offers:

- A one-time signing bonus of up to \$1,000 an acre (through 2031) for **riparian forest buffers** and other qualifying water quality improvement practices.
- Attractive annual rental and incentive payments.
- Cost-share assistance to install streamside buffers, watering systems, livestock fencing and more.
- Landowners have the option of selling a permanent easement on their land to the State of Maryland.





Conservation Reserve Enhancement Program

Five Types of CREP Payments Available:

1. **Signing Bonus** – A one-time bonus payment of up to **\$1,000/acre**
2. **Annual Rental Payment** – The local soil rental rate plus a per acre incentive valued at between 80% and 200% of the local soil rental rate.
3. **Cost-Share Assistance** – Landowners are reimbursed for up to 100% of the cost to install eligible best management practices (BMPs) on enrolled land.
4. **Practice Incentive Payment** – A one-time incentive payment worth 40% of the total cost of establishing qualifying BMPs. This payment is in addition to the cost-share that is available for most practices.
5. **Mid-Contract Management Payments** – Cost-share is available to help farmers implement approved management activities to support plant diversity and wildlife habitat.





Conservation Reserve Enhancement Program

Eligible Cost-Share Practices

Best Management Practice	Cost-Share Rate	Eligible for 40% Practice Incentive Payment
Riparian Forest Buffer	Up to 100%	Yes
Herbaceous Buffer		
Wetlands Restoration		
Marginal Pastureland Wetland Buffer	Up to 87.5%	Yes
Stream Crossing		
Stream Fencing		
Watering Trough		
Marginal Pastureland Wildlife Habitat Buffer	Up to 50%	Yes
Shallow Water Area for Wildlife		
Retirement of Highly Erodible Land Adjacent to Waterways	Up to 100%	No
Habitat for Declining Species	Up to 50%	No





Conservation Reserve Enhancement Program

Program Highlights

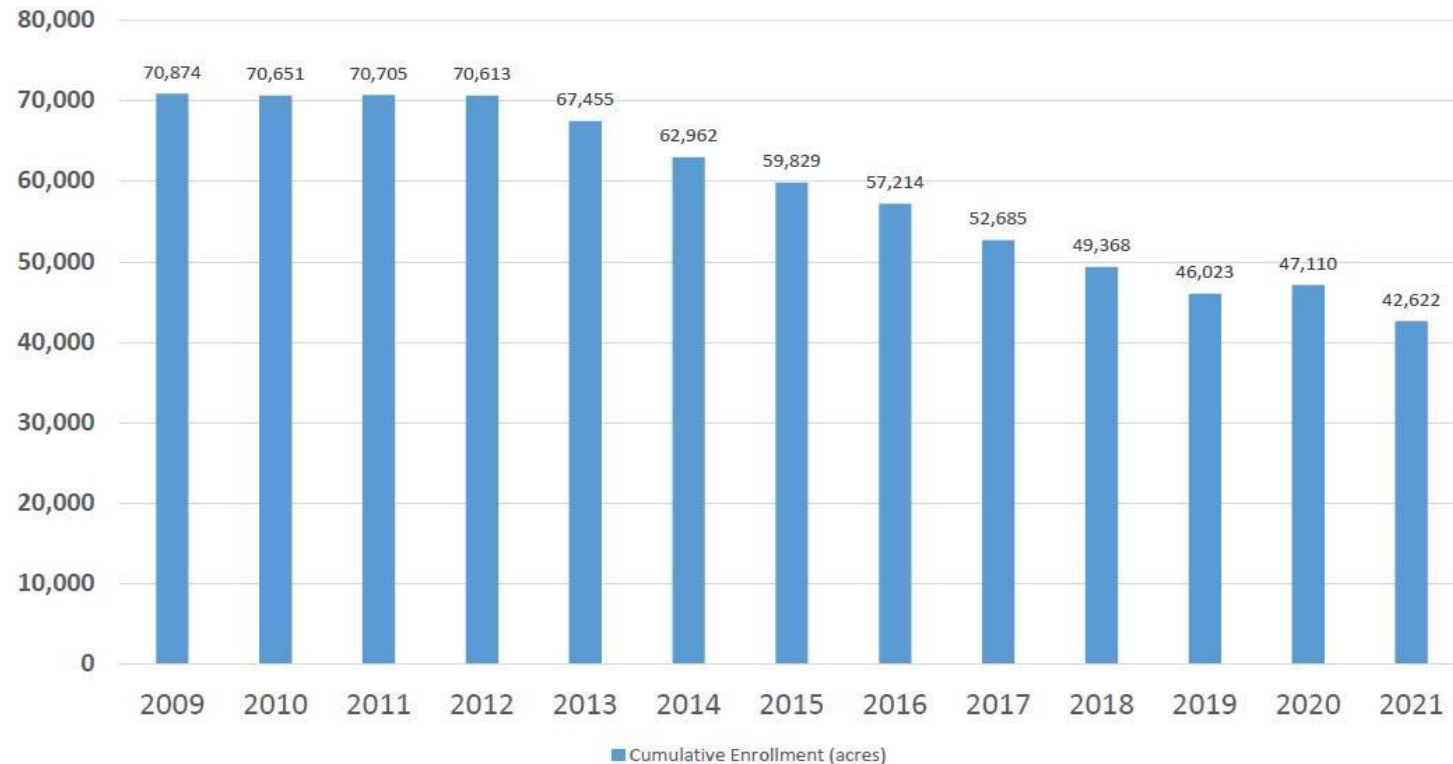
- 100,000-acre statewide goal—Approximately 43% of goal reached as of FFY21
- FY 2019 – Paid \$60,821 for 17 projects; \$280,342 in signing bonuses
- FY 2020 – Paid \$174,038 for 30 projects; \$209,752 in signing bonuses
- FY 2021 – Paid \$138,936 for 37 projects; \$156,796 in signing bonuses
- FY 2022 – Paid \$65,926.61 for 12 projects; \$293,637 in signing bonuses





Conservation Reserve Enhancement Program

Cumulative Enrollment by FFY





Conservation Reserve Enhancement Program

Program Strengths and Weaknesses

- Early program years saw strong interest in the program, but farmer participation has declined despite outreach efforts.
- Decline is associated with several contributing factors, based on feedback received by FSA:
 - Contracts transitioning to permanent easements (~11K acres)
 - Ground being returned to ag production (crop prices, enrollee's age, etc.)
 - Difficult maintenance requirements of CREP contract
 - Program fluxes per federal administration
 - Staff capacity particularly at FSA – often redirected to new priority initiatives such as pandemic relief





Conservation Reserve Enhancement Program

Maintenance requirements for woody plantings

- Options in Maryland are prescribed burning, shallow/light/strip disking, overseeding/interseeding, strip spraying for plant diversity, spraying for wildlife, tree thinning and/or pruning, wildlife structures, early successional habitat development and interplanting
- Prescribed on contract schedule per FSA and according to NRCS standards
- Many considered to be labor and time intensive by landowner, without additional funding
- Lack of follow-up support (but FSA is working to improve)





Conservation Reserve Enhancement Program

Strategies to Increase Interest in Planting Riparian Buffers

- State \$1,000/acre signing bonus for new CREP CP-22 (Forest buffers accounted for only 21% of enrolled acres in (FFY21))
- 100% cost-share to plant riparian forest buffers and install stream exclusion fencing
- State \$1000/acre signing bonus for CLEAR30 enrollees (expired CREP contracts opting for 30-year renewal)





Conservation Reserve Enhancement Program

Strategies to Improve Participation (*continued*)

- Enhanced Education and Promotion
 - Farmer testimonial videos
 - <https://www.youtube.com/watch?v=AHcYj9xCF4w&list=PLdMGQvDTNcyzaHZPhn5ZfQCmZ60P4OFOS&index=9>
 - Enhanced social media/electronic newsletters/news releases/blogs
 - Ag agency/partner newsletters, publications; farmer meeting presentations
- Ongoing efforts to refine outreach and target priority areas
- MD CREP Advisory Committee to consider Agreement improvements with FSA
- Piloted state Conservation Buffer Initiative to complement CREP



A review of additional conservation programs that support tree plantings on Maryland's agricultural land.





Maryland Agricultural Water Quality Cost-Share Program (MACS)

Established in 1984, MACS provides farmers with cost-share grants to install BMPs on their farms to control erosion, manage nutrients, and protect water quality. Today, more than 40 BMPs are eligible for cost-share. This program supports the following CREP practices: **riparian forest buffers, stream fencing, livestock watering systems and livestock crossings.**



- In FY22, Maryland farmers installed 40 acres of riparian forest buffers on their farms.
- Since 1984, farmers have installed nearly 15,000 acres of riparian forest buffers on farmland.





Maryland Agricultural Water Quality Cost-Share Program (MACS)

Recent Program Enhancements

- In FY22, MDA received approval to cover up to 100% of eligible costs to install qualifying high-priority best management practices on farms.
- Riparian forest buffers now qualify for **up to 100% cost-share** through MACS.
- Stream exclusion fencing (a supporting practice) also qualifies for up to 100% cost-share through MACS.
- In FY22, MDA raised the cost-share funding caps from **\$50,000 to \$75,000 per project** for 34 conservation practices financed through MACS including practices associated with CREP.





Maryland Agricultural Water Quality Cost-Share Program (MACS)

Other Eligible Tree Planting Practices

380 - Windbreak

381 - Silvopasture

422- Hedgerow Planting

612 - Tree & Shrub Establishment

666 - Forest Stand Improvement (Considering)





Conservation Buffer Initiative

Now in its 2nd year, this pilot program complements CREP by offering attractive incentive payments to plant streamside buffers on farms to improve the health of local streams and the Chesapeake Bay.





Conservation Buffer Initiative

Highlights

- Offers attractive incentive payments, a buffer option for field ditches, more flexible site management, and shorter contract terms.
- Increased payment rates for forest buffers in FY22 up to \$4500/acre (one-time)
- Expanded eligible lands for HEL and hydric soils





Conservation Buffer Initiative

2022 Conservation Buffer Payment Options

Practice Name	Adjacent Land Use	One-Time Payment (New or Improved)	One-Time Payment (Existing)	Agreement Term (Years)
Watercourse Access Control Narrow Grass Buffer 10 ft – 34 ft wide	Pasture	\$1,500/acre	none	5
Watercourse Access Control Grass Buffer 35 ft – 100 ft wide	Pasture	\$2,500/acre	none	5
Watercourse Access Control Forest Buffer: 35 ft – 100 ft wide	Pasture	\$4,500/acre	none	10
Grass Buffer on Watercourse – Narrow Buffer: 10 ft – 34 ft wide	Cropland	\$1,000/acre	\$500/ac	5
Grass Buffer on Watercourse – 35 ft – 100 ft wide	Cropland	\$2,000/acre	\$500/acre	5
Forest Buffer on Watercourse 35 ft – 100 ft wide	Cropland	\$4,000/acre	none	10
Deer Fencing*	Cropland	\$5/linear foot	none	5

**Deer Fencing is limited to grass buffers on watercourses. Financial assistance is available for fencing adjacent to the grass buffer only.*





Conservation Buffer Initiative

Signup Results:

- In 2022, 48 farmers applied for incentive payments to install 69 streamside buffer projects, and 7 of these projects are potentially riparian forest buffers.
- In 2021, 43 farmers applied for grants to jumpstart 62 streamside buffer projects on their farms to improve the health of local streams and the Chesapeake Bay, and 3 of these projects were riparian forest buffers.





Conservation Buffer Initiative, conclusions:

- The 2022 applications for Conservation Buffer Initiative had more applications for tree buffers than prior year, but requested acreage is similar in both years.
- Feedback from SCDs suggest grass buffers remain most popular with increased flexibility, while CREP is preferable for tree plantings because more funding is available (signing bonus + PIP + high annual rental payment)
- Biden administration's focus on "climate smart ag" will likely increase payments for tree practices within CREP, but it remains to be seen if state MOU can/will be updated





Agricultural Support for the *Tree Solutions* *Now Act*

- MDA's BMP Verification Program, estimates that there are currently **15,090** acres of forest buffers on agricultural land in Maryland (Each acre is capable of supporting 300-400 trees).
- MDA will continue to work with its conservation partners (USDA-NRCS, local soil conservation districts, etc.) to promote tree plantings.
- MDA will continue to promote the \$1,000/acre CREP signing bonus to establish riparian forest buffers.





Agricultural Support for the *Tree Solutions* *Now Act*, continued

- MDA will build on and promote new programs such as Tree and Shrub Establishment and Silvopasture.
- Additional edge of field practices will be studied.
- MDA will work to address the challenges of planting more trees on agricultural lands
 - Review of cost-share for maintenance practices
 - Work to address concerns over taking productive land out of production





Any Questions?

Support for the Tree Solutions Now Act | 5 Million Trees by 2031



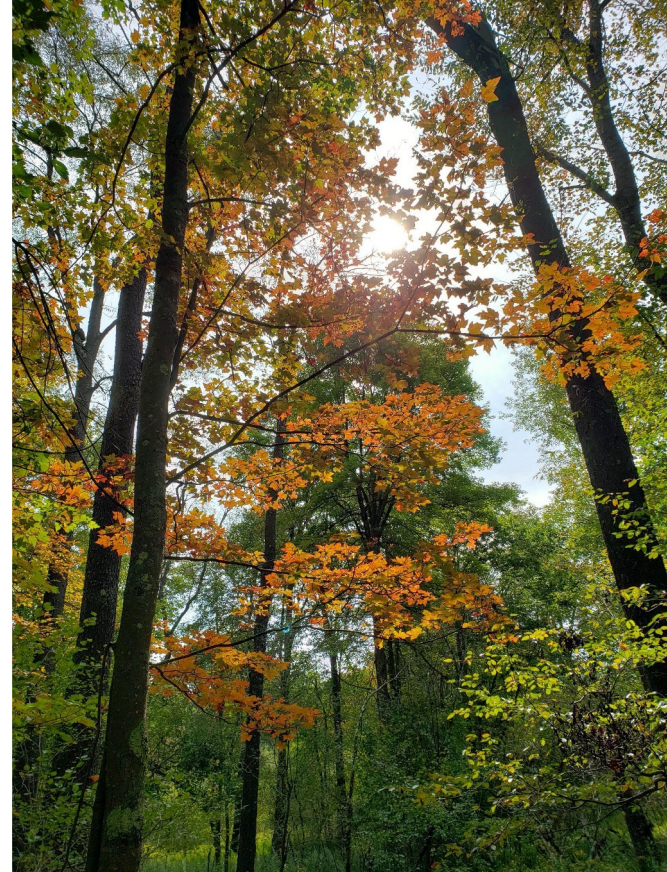
5 Million Trees: Progress and Implementation

Maryland Department of Natural Resources

August 19, 2022

HB 991 - Tree Solutions Now Act of 2021

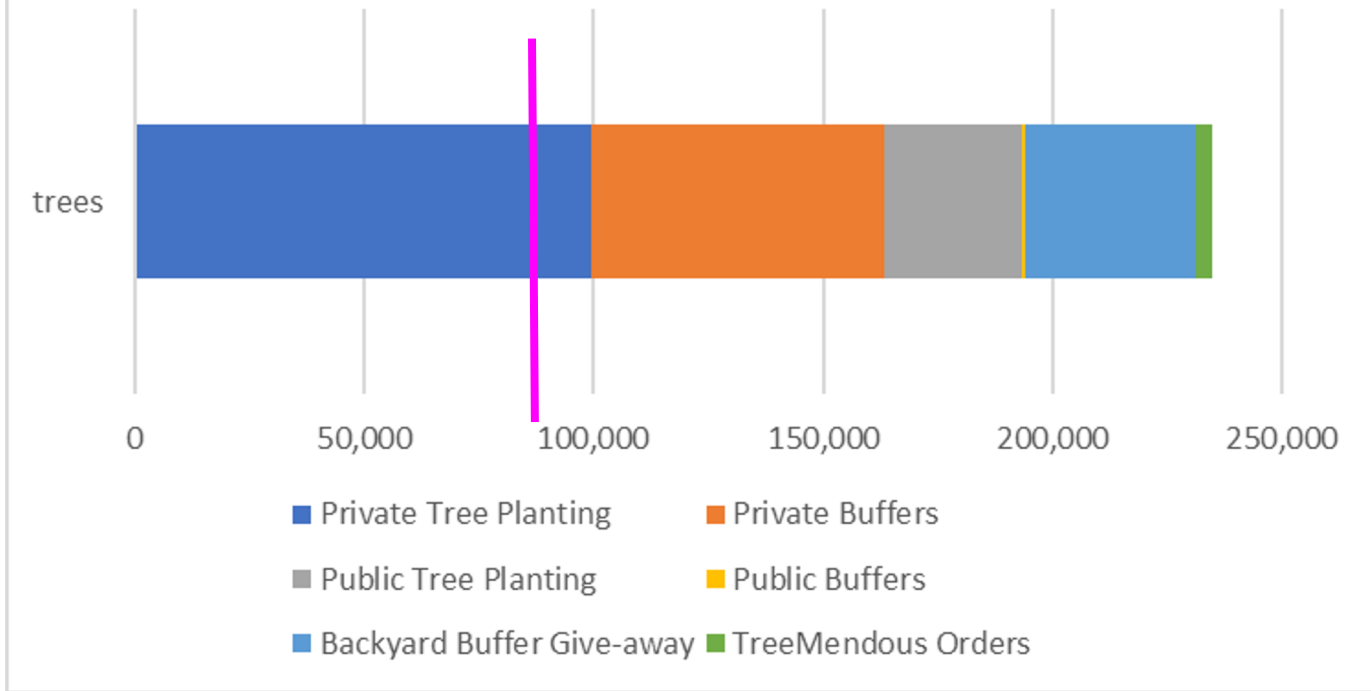
July 2021 - Present



Progress on Maryland's 5 Million Trees Effort



FY22 New Tree Planting Progress



TREES PLANTED

- Net to 5 Million Trees Goal: 144,675 trees

Existing Tree Planting Programs

AFFORESTATION

PRIVATE

- Marylanders Plant Trees coupons
- DNR Trust Fund grants for tree planting
 - Healthy Forests, Healthy Waters
 - Western MD RC&D

PUBLIC

- Tree-Mendous containerized trees
- Gift of Trees plantings
- Maryland Urban and Community Forestry Committee Grant Programs



Existing Tree Planting Programs

BUFFER PLANTING

PRIVATE

- Backyard Buffers giveaways
- Conservation Reserve Enhancement Program (CREP)
- Healthy Forest, Healthy Waters- buffer locations
- Landowner funded plantings

PUBLIC

- Agency budget
- Grants



Developing planning tools

- Working with MD Departments of Planning and Housing and Community Development to create mapping tools to develop better geographic and analysis tools to locate tree planting opportunities.



Expanding Tree Stock

Tree Seedling Nursery Investments:

- Expanded seed purchasing in FY22 proactively
- Estimated additional **½ million trees for 2023**
- Planned future seed collection with 5MT staff & proactively mapped existing collection sites
- Updated equipment acquisition- tractor, etc.



Collaboration with MD Nursery Landscape and Greenhouse Association

- Containerized/B&B Tree stock analysis by University of Maryland Extension- identifying adaptable, readily grown underused native tree species
- Options for contract prices or forward purchasing



Leveraging 5 Million Trees Funding Sources

Motor Vehicle Administration registration donation box

- Benefits Tree-Mendous public land tree plantings

MDOT Urban Tree Grant

- Partnering with DNR and MD Urban & Community Forestry Council

DNR capacity grant in place

- MD Forest Service Staffing and Supplies- 13 positions in hiring process
- Contracted Maintenance, additional to care in turn-key contracts- Regional
- Small Marketing budget (<10K)- a start

APPLICATIONS SUBMITTED:

Climate-Smart Agriculture-Chesapeake (w/MD) application included agroforestry - NFWF

America the Beautiful- \$5 million in additional tree planting and restoration funding- DNR



FY22 MDOT Urban Tree Grant
Tree Planting Event at Hampden Elementary/Middle School in Baltimore



Outreach to Underserved Communities and Beyond

MD Forest Service Urban and Community Forestry Program led outreach

- **ALL 4 Historically Black Colleges and Universities HBCUs did Spring 2022 tree plantings!**
- 3 MDOT Urban Tree grant recipients
Hampden Elem. School in picture
- Seminars- Eastern Shore and W MD
- **FY22 Total Volunteers - 2,499!**



New Staff, Robust Training

- Hiring underway for:
 - 1 Assistant Manager at Ayton Tree Nursery
 - 2 Tree Planting Supervisors
 - 10 Tree Planting Specialists
 - Outreach and planning
 - Planting and maintenance
- Training planned, with group, in field, and online
 - Tree ID, planting techniques field review
 - Nursery tour, planting site visits, CREP
 - Planting and Volunteer programs and processes



Next steps

- Currently developing DNR's annual report for inclusion into the Forest Markets and Trees Commission Report
 - To include additional recommendations:
 - Establish funding source, not just grants
 - Permanent staffing, not just 2 year contractuels.
 - Create enabling statutes, revise existing statutes to support 5MT
- Develop strategies to take advantage of new federal dollars
- Expand maintenance strategies to include:
 - Volunteer
 - Regional contracts
 - Workforce development / career pathways opportunity
- Expand outreach



Partnerships to Leverage Efforts and Funds



A photograph of a young tree nursery or reforestation site. The foreground and middle ground are filled with numerous young trees, each protected by a white, cylindrical plastic sleeve. The trees are planted in rows on a slightly elevated, grassy slope. The ground is covered with a mix of green and brown vegetation, including tall grasses and small white flowers. In the background, a dense line of mature green trees forms a natural border under a clear blue sky. The text "Thank you!" is overlaid in a large, white, sans-serif font in the center of the image.

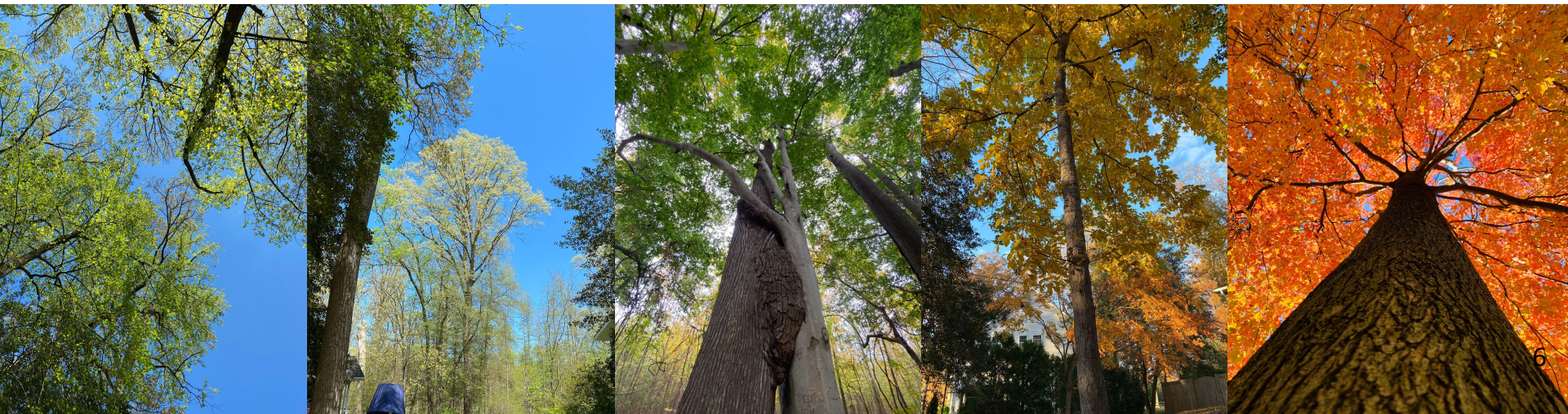
Thank you!



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Questions and Discussion

Commission Members and Implementation Leads





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Public Comment Period

Please add name and affiliation in the chat box and we will take comments in the order received.



Staff Contact

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