



Maryland
Department of
the Environment

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

April 8, 2022
Regular Meeting



Meeting Agenda

- **2:00-2:10pm** - Welcome and updates
- **2:10-2:25pm** - Logo and branding discussion
- **2:25-2:40pm** - Current tree reporting and verification
- **2:40-2:50pm** - Data priorities for 5m trees
- **2:50-3:20pm** - Open discussion and questions
- **3:20-3:30pm** - Public comment period



Draft Work Plan and Timeline (Meetings on Fridays – 2-3:30pm)

- **February 11**
 - MDA Implementation Strategy
 - CBT Urban Tree Program Plan
- **March 11**
 - Communications plan/update
 - DNR Implementation Strategy
- **April 8**
 - MDE Tree Accounting and Quantifying Carbon
- **April 12 - End of Legislative Session**
- **May 6**
 - MDE and Invited Speakers: Intro to Carbon Markets and the role of the State
- **May 27**
 - MDE and Invited Speakers:
 - Conservation Finance Act
 - Clean Water Commerce Act
 - Water Quality Revolving Loan Fund
 - Environmental Impact Bonds
- **June 17**
 - MDOT and DNR:
 - Tree mitigation for transportation projects



Proposed Initiative Logo



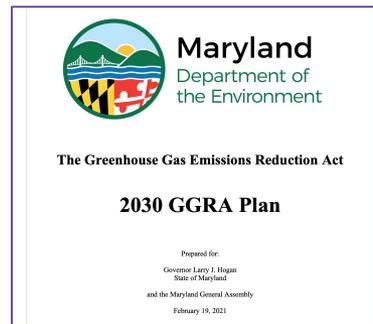


Current Reporting Streams

Acres of CREP, including riparian buffers
Counted at time of payment



Acres of non-riparian tree plantings, non-CREP riparian plantings, # of urban trees
Counted at time of planting



Chesapeake Assessment Scenario Tool (CAST) model for water quality benefits



Ecosystem Demography (ED) model for projected carbon benefits (planning)



Current Independent Verification

CBP

- High-resolution Land Use Change Data in CAST-21 (Chesapeake Conservancy)
- Resolution: 1m
- RS: lidar, NAIP imagery
- Dates: 2013/14 to 2017/18
- 2021/22 & 2025/26 planned



Both utilize **high-resolution remote sensing**, and capture **trees outside of forests** from same underlying **UVM tree canopy maps**

GGRA

- High-resolution forest carbon monitoring in GHG Inventory (NASA/UMD)
- Resolution: 90m fractional
- RS: lidar, NAIP, NAFLD/LandSat
- ED model
- Dates: annualized 2006-2020
- Triennial updates planned



Regrowth is detected by remote sensing but can be 10-15 years after planting before algorithm recognizes as “trees” or “forest”



Scope of current tree programs

- Riparian and non-riparian tree plantings (e.g., afforestation)
 - agricultural and other private lands
- Reforestation after harvest, improvements to management
 - public and private lands
- Urban tree planting
 - mitigation
 - non-mitigation (e.g., Tree-Mendous Maryland)
- Estimated natural regeneration on private lands





Focus of 5 million trees

- **Afforestation**, creation of new forest/tree area
 - Likely focus of additionality relative to existing programs
 - Currently 200 acres projected per year by 2030
- **Eligible** plantings:
 - All CBT Urban Tree Program plantings
 - All Maryland Forest Service non-mitigation urban trees
 - Expansion of existing afforestation programs above baseline
 - New potential eligible DNR programs (e.g., not associated with timber harvesting)





Data management priorities

- Harmonize internal data streams, maximize efficiency
- Clarity in reporting (CBP, GGRA, 1t.org)
- External facing map for transparent spatial tracking
- Broad ownership, trusted accounting



Maryland
Department of
the Environment

Pledge by State of Maryland

State of Maryland - Growing Five Million Trees by 2030

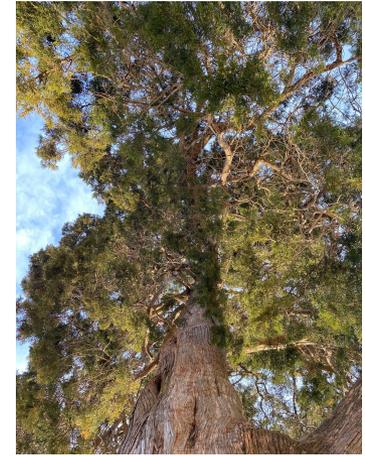
Total Trees Pledged: 5,000,000

Supporting actions: Sustainable Forestry, Avoided Deforestation, Nursery Development, Data and Technological Tools, Science and Technical Assistance, Tree Protection through Management, Forest Product Markets and Innovation, Workforce Development, Environmental Education, Conservation Finance



Opportunities for Leverage

- Leveraging **existing state-level tracking**:
 - Spatial data collected at time of planting
 - Monitoring and benefit quantification via remote sensing/modeling (e.g., MDE)
- Potential connections to **existing county/local programs**:
 - Counted if connected to implementing partner (e.g., DNR/CBT)
 - List of existing tree planting programs to be published under TSNA
 - Incentives for spatial registration re: coupon programs or giveaways; help resolve potential double-counting

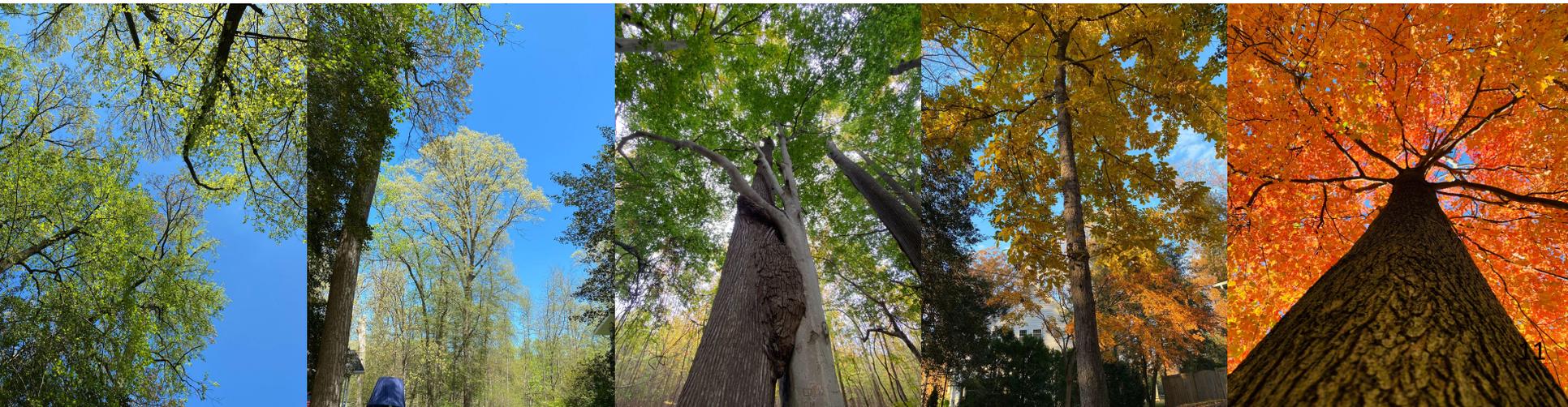




Maryland
Department of
the Environment

Questions and Discussion

Commission Members and Implementation Leads





Maryland
Department of
the Environment

Public Comment Period

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



Staff Contact

Rachel Lamb, PhD

Natural Carbon Sequestration Administrator

Maryland Department of the Environment

rachel.lamb@maryland.gov