

Minutes
Baltimore County Advisory Commission on Environmental Quality (CEQ)
January 26, 2022 7 PM
Online Meeting on Webex

CEQ meeting dates, membership information, and reports are available at www.baltimorecountymd.gov/Agencies/ceq/index.html

Our thanks to Brian Lindley of EPS for coordinating Webex meetings during the pandemic.

Present: Carol Newill, Brian Lindley, Brian Fath, Jennifer Aiosa, Karen Wynn, Mahnaz Mazaheri Assadi, Radu Zamfirache, Justin Gallardo, Jennifer Langford, Chris Overcash, Joan Plisko, Andy Miller, Valerie Androustopoulos, Lois Jacobs, Chris Overcash, William Skibinski, Tom Krispin, Don Outen, Anne Hairston-Strang, Catherine Engers (for Councilman Quirk), David Lykens, Isaac Ambruso, Kenneth Green, Marian Honeczy, Bradley Lang (for Councilman Marks), Christopher Langway, Matthew Baker, Travis Cooke, Doris Franz Polling (Bevins staffer), Anita Kramer, Taylor Smith-Hams, Brian Bernstein, Debra Shindle, Katie Lautar, Don Callihan, Deborah Kleinman, John Alexander, Bonnie Sorak, Kristin Taddei (Montgomery County), Councilwoman Cathy Bevins, Councilman David Marks, Councilman Izzy Patoka

7 pm **Welcome**- Dr. Brian Fath, Chair
Everyone mute please.

7:05 **Forest Conservation Challenges and Opportunities, A Two-Part Virtual Symposium; Part I.** In response to County Council resolution No. 135-21, passed unanimously 11/1/21.
Dr. Brian Fath, Moderator

Brian introduced the topic of the symposium and explained our goal. Our goal is to promote the goal of healthy forests in Maryland; Maryland has been a leader with the Forest Conservation Act and we just want to support continued improvement.

7:10 **Tom Krispin - The Forest Conservation Act in Baltimore County.** *As the supervisor for the enforcement section within the Environmental Impact Review Section, Mr. Krispin is one of the people in charge of enforcing all regulations under the forest conservation act. He joined DEPS in 2006 with degrees in Forestry and in Geography and Environmental Planning.*

The Forest Conservation Act (FCA) was adopted in 1991 by the state and in 1993 by Baltimore County; it was not designed as a no net loss of forest law, but it was intended to help with forest loss. A map of the county in 2014 showed 42% forest cover. We are keeping most of the impervious surfaces inside the URDL and away from the more rural areas. In 1928-1929 the county land cover was about 28% forest so we have seen increases, but the trend started to reverse with development in the 1980's; the law helps to control or reverse that trend. Timber harvests if done correctly and legally will leave stumps that can reforest naturally and legally. Removal of stumps without authorization violates the Act.

What triggers compliance with the Act? Development on a tract that is more than 40,000 ft². Developers have to hire a qualified professional as a consultant to produce a forest stand delineation, forest conservation work sheet, and a forest conservation plan. They identify what is on site and classify the stand – whole site assessment using worksheets from the Forest conservation manual, similar to but not identical to the state manual. Record all species of dominant trees, shrubs and vines, endangered species, exotics; develop a picture of the forest structure looking at e.g. canopy closure, vegetation layers – a numbered system to determine the priorities for retention of forest. There are priorities such as high structural diversity, contiguous forest patches of 100 acres or more, corridors of 300 feet or more, forest buffers, champion trees and more. Worksheets calculate reforestation and afforestation requirements. Take the basic site data, pull out anything that is exempt (e.g. 100-yr floodplain, transmission lines), determine thresholds, and identify what will be cleared or retained to determine the number that will tell you what you need to replant onsite. Put the data on a plan which must have standard notes, show areas for retention and planting – any existing trees to be saved will be in forest conservation easement for long-term protection. Afforestation means to add trees where they were not present; reforestation means planting trees adjacent to existing trees or existing forest.

Where do we plant and when? The goal is to plant onsite first. If the developer has another property offsite that they can have easements on, that might be an option. The third option is to pay into a fund for planting on a fallow field. Planting has to be forest preservation in perpetuity. Developers can put funds into a forest conservation bank or pay fees in lieu at \$0.55 per ft² and this is used by DEPS to plant trees.

For planting on site, do so after construction is completed and do it in fall or spring. What do we plant? Maryland natives, a minimum of 5 different species, 1/3 pioneer, 2/3 mid to late successional, 60% canopy dominant and 40% understory. Fit plantings to site, account for deer pressure and use proper species, deer protection and exclusion fencing. Use the manual as a starting point but each plan is site-specific.

Securities – assure that the plan is implemented properly. Grading, stormwater and planting securities are taken in advance before permits can be released. Securities are \$0.25 per ft² (a little low) or 110% of itemized cost for planting. There is a 3-yr developer maintenance agreement (actually 3 years after the site planning and initial inspection). There has to be very close to 100% survival or funds are not returned. In years 1 and 2, 25% of the security can be released; in year 3, 50% is eligible for release. If at any point the county is not happy with survival they can deny security release and require replanting up to 75%. Larger stock or alternate species can be required. It is incumbent upon the applicant to contact the county with the survival report to get their money back. Sometimes they might not get their money back for many years. If the bond holder walks away from the security, then we can pull that security and use it to plant onsite. The problem is that the money has to be used onsite and can't be used elsewhere. After the inspection period is complete no further maintenance is required and this is true statewide as well.

Exemptions to the act were summarized in a slide; the main point is that these do exist for multiple different reasons. The Chesapeake Bay Critical Area has its own forest regulations.

Examples were shown to illustrate planting sites at different stages and survival rates. Some showed effects of intense deer pressure. Summary of 1993-2020: over 1900 projects reviewed, almost 30,000 acres of net tract area, over 9200 acres of forest conservation easements, approximately 4400 acres cleared, 197 projects required over 400 acres of reforestation and over 340 acres of afforestation, 20 planting banks with over 380 acres in forest conservation mitigation banks and 19 banks with retention areas totaling over 570 acres of retained and protected forest. We have learned a lot about what works and what doesn't and try to ensure the law is followed as written.

7:25 Don Outen - Forest Conservation Act – The Need for Extended Reforestation Maintenance.

Mr. Outen was Baltimore County DEPS' Natural Resource Manager 1987-2017. For 15 of those years, he worked to implement the County's Forest Sustainability Program. In 2015, he received the Lifetime achievement Award for Forest Management and Preservation from the Alliance for the Chesapeake Bay.

Forest conservation act – the need for extended reforestation maintenance

The take-home message up front is this: the required 3 years of maintenance is clearly inadequate and many projects have failed thereafter. If this happens, all of the time and money spent on reforestation is wasted. This is not the fault of DEPS or agents or the developers. The problem is the law itself.

The Act was the first of its kind in the U.S. A state mandated implementation consists of a local ordinance and technical manual. It was followed by other laws including the Critical Area Act of 1983 and stream buffer regulations, wetland and floodplain protection regulations.

The FCA was not originally welcomed in Baltimore County, so what was presented by the administration was basic compliance. Nevertheless, DEPRM went beyond the state's minimum requirements. DEPRM proposed 8 years, the County Council approved 3 years.

The FCA allowed several options for forest replacement and DEPS had to sign off after the required 3 years. For inhouse fee-in-lieu projects, DEPS provided extended maintenance of projects as needed to ensure survival.

Why is extended maintenance needed? Planting trees is not like paving a sidewalk. As living assets, trees face competition for survival and increasingly we face aggressive climbing vine species that have to be managed. Deer buck-rub of tree trunks as well as browsing also damage and kill young trees. The team did a site-based evaluation of the issue in 2013, visiting numerous projects most of which had failed several years after the maintenance period. The first slide shows examples that did survive with extended maintenance; these were monitored

and maintained and replaced where necessary. There was low survival at reforestation sites that were developer projects simply because there was no maintenance beyond the requirements. In some cases, the tree shelters and tree tubes remained but virtually no trees survived.

Not all projects have failed, but many have and you can look at the data that have been recorded to verify this.

The time and money spent for reforestation is wasted if forests don't survive; 3 years is not sufficient. More intensive maintenance is needed especially for the first 3-5 years. After the initial period, sites should be monitored 1-2 times/year to determine needs. Extended maintenance for 8-10 years as needed might be provided through on-call contractors; this may not be needed every year. One of the remaining questions is how we pay for these costs.

7:40 Dr. Anne Hairston-Strang - Restoring Forests: FCA and Beyond.

Dr. Hairston-Strang is Acting MD State Forester and Director of the MD Forest Service. With degrees in Forest Hydrology, Forest Soils, and Forest Management, she has worked for the Forest Service since 1997 and since 2015 as Associate Director for Statewide Programs.

Dr. Hairston-Strang started with discussion of recommendations from the governor's task force on trees and forests in 1993; what became the Forest Conservation Act was #7 on the list. Some of the basics have been covered already. It was a statewide minimum requirement but adopted in different ways in different jurisdictions, tailored to conditions and needs on the ground. State lands are handled differently and reviewed through DNR whereas county lands are reviewed through their own regulatory agencies. There is a lot of flexibility within the Act itself with regard to replacement of trees cleared during development.

Tree Planting Programs – Healthy Forest/Healthy Waters and Lawn to Woodland; backyard buffers, conservation reserve enhancement program for buffer and wetlands, watershed grant funding, conservation Program Open Space and coming soon – 5 million trees. Some of these were copied from the example of Baltimore County. Some of these are voluntary programs where the landowner signs up and some are carried out in partnership with Alliance for the Chesapeake Bay. The question of how you afford and administer longer-term care is very much in discussion right now, particularly as we start talking about the new law (HB991 last year establishing the 5 million trees program). There are a number of different ways the state can fund rural tree planting; usually there is a minimum number of acres. Program Open Space is one option. We work also with other states and many wish they had a similar program. If we are concerned with conserving the larger forest blocks for targeted ecological areas, this is the program that helps us to do that. The iMAP program is used for mapping and targeting.

We are in active discussion right now about what new programs should be created to fill gaps where people want to plant trees but can't get the assistance they need. Another thing set up by the bill is carbon markets and these are exploding. The prices for a carbon market are not enough to fund tree establishment at this point and a lot of programs are working with mature

trees. But there may be good potential to tap those kinds of markets to help pay for care – that is speculative at this point but it is an option to consider, and the new Trees and Markets commission will encourage innovative approaches.

All counties in Maryland other than Allegheny and Garrett, as well as 44 of Maryland's municipalities, have FCA laws. UMCP has interest in carbon investments and how to target offsets. Matt Baker at UMBC is also looking at costs and affordability (need to check to make sure I heard that correctly – was this a response to a comment in the chat?).

The forest buffer survival and function monitoring includes 14 long-term riparian forest buffer sites that have been looked at for over 15 years. Examples were shown to illustrate what sites looked like at time of planting, what they looked like at young stages, and what they looked like at 15 years. Some of the differences show dramatic improvements. The associated differences, including cooler temperature, shade, etc. make the site much more habitable.

Tree survival data – the good news is that native species richness doubled at 9 riparian forest buffer sites; native species were dominant, natural regeneration was present and helped increase diversity. The bad news is that invasive species richness tripled. Sun-loving species were declining but shade-tolerant species were increasing. Some of the early invasives were shaded out but others have moved in such as garlic mustard and oriental bittersweet. Those are a problem for management. Vegetation planted seedling survival at 19 sites showed the biggest changes in the first five years with highest rate of mortality. We did separate accounting for ash mortality as a result of emerald ash borer. (This is increasing but usually not affecting a majority of the buffer given other natural regeneration.) Our stocking goal is 200 trees/acre. A lot of ash was planted, so this was a significant problem to deal with and did cause some loss in otherwise well-established stands.

There is differential survival by species. Some of the oaks were among the best survivors.

Climate and changing conditions: weather variability (e.g. wet 2017/18, dry fall 2019) – the most difficult thing we are seeing is the level of variability. A lot of trees had wet feet for longer than they had ever experienced and this was followed by drought. We lost a lot of oaks, we had root rot and different disease complexes. A lot of otherwise healthy and mature trees succumbed to disease pressure. Oaks support a lot of biodiversity but can be vulnerable when affected by stressors. Climate impacts have definitely changed over the 30 years since the Act was passed and changes are not uniform but vary by site and conditions with different microclimates. Consider aspect, moisture of the individual site, expansion of invasive species etc. Species predictions: there is a huge amount of information available on climate adaptation of forest resources. There is a report already done on climate vulnerability of urban trees in DC and a link to that report was included for conditions in 50-100 years from now.

Prior to panel discussion the Commission members were asked to introduce themselves.

8:00 Panel Discussion - Dr. Brian Fath, Moderator

Speakers and invited Discussants may access the microphone. Others are welcome to use the Chat function, which Dr. Joan Plisko will monitor.

Joan Plisko – Don Outen, please comment on the length of time for monitoring slower-growing species or those more vulnerable to competition. Is there a one-size-fits-all solution or is it species related?

A: Our reforestation projects with in-house crews and contractor planting with WIP plan was basically the same. We did not plant pioneer species; we wanted to plant the trees that would form the canopy for a future forest rather than wait for decades of succession. We planted a diverse group of these trees, planted them well, and took care of them to ensure survival, density, and species composition in the canopy that you would want in a mature stand.

Izzy Patoka – I went on a tour with Don and others and we visited reforestation sites and it sounds like we in Baltimore County are being minimalists in terms of our reforestation efforts. Is there a legislative fix and how much pushback if we move beyond the three-year minimum? How do we get to a longer minimum period?

A: My view is that you have to do what is needed and clearly three years in most cases doesn't seem to work. While the FCA is the focus here and is important, the County has programmed reforestation for compliance with its water quality permit programs and those use the same minimum maintenance period. Maybe the question is how long does the development community need to be the responsible party and can some other entity then step in and do the continued maintenance? If done well the continued maintenance can be done on a decreasing curve with reduced costs. In the longer run this costs us less than replacing failed plantings.

Patoka: So it's really the transition between the first three years and the mature trees that we need to bridge?

A: Yes, and we have learned a lot and are getting better at understanding what is needed. In some cases the trees look great after 5 years but we need to think about whether we will lose them to vines if we do nothing beyond that.

Brian Fath: to Anne - the riparian buffer sites that survived well after 15 years – did they have more than 3 years of maintenance?

A: That was the requirement at the time, but with climate change and increased invasives we can no longer rely on that kind of success without closer examination. We also have to be conscious that some of what we are doing is trying to ensure we have long-term carbon retention, do good things with wood waste on properties where we live, and think beyond survival to healthy development and management of invasives.

Joan Plisko: open this up to commissioners and invite Carol Newill to ask her question orally

Carol: I understand that Baltimore City is updating their list of potential tree species for forest conservation sites accounting for climate change. Dr. Hairston-Strang, are other jurisdictions doing the same?

A: That is one of the most common questions I get. I'm sure some other jurisdictions are, but not sure if they are doing it just through the FCA or in general. Montgomery County may be doing this. There are some reports on Piedmont and Coastal Plain expected adaptation of species.

Don Outen: We had some reports on expected adaptation of species to climate change from EPA and oaks turn out to be much more hardy than maples.

Anne Hairston-Strang: We used to have a lot of red maples but we are starting to see some of the loss of adaptability in maple. We also don't know what diseases or pests might be coming with climate change which is why we need diversity. We are near the middle of the north-south geographic range of a lot of our species so we are fortunate in a lot of ways. We are considering species like southern red oak but we won't walk away from northern red oak and will consider the sites where they can thrive for a long time.

Joan: We are talking about how long to care for the trees. Is there a national best practice? How is this addressed outside of Maryland?

Anne: I'm not aware of a national best practice.

Marian Honeczy : The national standards don't get into maintenance of plantings per se. So we aren't aware of national standards for survivability.

Anne: It depends in part on the site and how well you do the site preparation

Marian Honeczy : The way FCA is set up and the way it has been managed since 1992 (I am the last state employee left from the original cohort) is that the developer who has to set up mitigation to get a building permit has to put up a bond or surety to guarantee survival for that two or three year time frame and if the county is not happy with survival, the money is not returned and the maintenance period is extended and may require replanting. Once they hit the percent coverage they can get their money back and are no longer responsible for maintenance. But in fact the aggressive growth of invasive species is quite expensive and difficult to manage and maintain beyond the period when the developer is responsible. This is why a lot of counties and towns have not looked beyond the bond period, because then they have to cover the cost of continued maintenance.

Brian F: How do you distinguish between percent survival and health?

Marian Honeczy : For seedlings, because of their size they have better growth than the bigger trees because of less shock when transplanted; while bigger plants take longer to grow. If you plant something like 700 seedlings/acre you know you will lose a certain percentage. The end result is that more seedlings are required to survive 3 years than if you plant bigger material, but a larger percent of the larger trees are expected to survive.

Don Outen: We started with seedlings and had horrible survival. Eventually we went to ¾ inch 4-5 foot saplings and had survival rates of almost 100%. Same with density: we started with 20-25 feet apart and about 100 trees/acre which mimics a mature stand. But these are not the issues the council is focusing on. Whether you plant little or big plants, the issue is the length of the maintenance period and whether we can have success with just a three-year minimum.

Brian Bernstein (last question): Don, in wetland mitigation and stream restoration practices there is a lot of adaptive management. Is part of our effort to look at stronger adaptive management requirements so that we can put in different requirements for different site conditions?

Don: In our experience planting is done well. The question again is the time period because of competition from other vegetation and stressors that can come in and undo all of that good work if you walk away too early.

8:25 **Conclusion of Part I of Symposium.**

Brian: we can retain some of those questions in the chat for the report. The next session (part 2) will be on Feb. 16th and we will hear from other jurisdictions and from some experienced consultants. That will also be an open meeting and we invite everyone to come back for that.

8:25 **CEQ Business**

- a. Welcome new Planning liaison Bill Skibinski - Dr. Carol Newill
Welcome to our Planning Department liaison, Bill Skibinski, who has been with the county for seven years and before that with MDE, with a broad array of experience. He is currently working on water resources and we look forward to his input.

- b. Correct and approve minutes of 12/1/21 meeting - Dr. Andy Miller
No amendments requested and the minutes were approved.

- c. **New: Citizen request of CEQ** re proposed Go Ape company's zipline and ropes course using trees in forest of Oregon Ridge County Park - Dr. Carol Newill

Carol explained the plan forwarded to her by a member of the public in connection with a plan to put in a large ziplining installation at Oregon Ridge Park. The person had read our painted trees report from 2018, which was in response to a similar concern about how trees were being used to support the interests of a particular group but without regard for the mission and goals of the park. We have been asked to look at this and we need to form a workgroup. We need at

least four volunteers to look at this and to let the Director of Recreation and Parks know that we are doing this. After our 2018 report was provided to the council, legislation was passed so that a single person could not make this decision without it going to DEPS and requiring their signoff, and it's not clear the law is being observed in this case. We want to make sure the law is followed and that something does not happen without a response. Jennifer Langford volunteered to be one of the four people.

Joan Plisko commented that tonight was a great format and we should consider following a similar format in future. Also the videotape will be saved and Brian Lindley can share it as needed.

8:40 Adjourn

Part 2 of Symposium will be 2/16/22 at 7 pm.

Remaining 2022 meetings: 2/16 (instead of 2/23), 3/23, 4/27, 5/25, 9/28, 10/26, 12/7.

Complete record of the chat (for use by CEQ, not for posting):

from Catherine T. Engers to everyone: 6:58 PM

Hello everyone I'm sitting in for Councilman Quirk

from Joan Plisko she/her/hers to everyone: 6:59 PM

hi Cathy!

from Catherine T. Engers to everyone: 7:00 PM

Hey joan

from Joan Plisko she/her/hers to everyone: 7:02 PM

Hello Anita

from Joan Plisko she/her/hers to everyone: 7:03 PM

Hi Folks. Please mute yourself. Thanks

from William Skibinski to everyone: 7:05 PM

set to Mute on entry in the participant tab

from Carol Newill (privately): 7:06 PM

Is this Brian Lindley?

from Carol Newill (privately): 7:07 PM

Is this Brian Lindley? I am being told that the link on the cEQ website is not working

to Carol Newill (privately): 7:08 PM

ok, if someone contacts you please send the link

from William Skibinski to everyone: 7:08 PM

uncheck entry and exit tone, too

from Brian Fath to everyone: 7:09 PM

please mute

from Joan Plisko she/her/hers to everyone: 7:09 PM

Thanks William

from cathy bevins to everyone: 7:09 PM

I want to thank all the commission members for their commitment and service to the folks of Baltimore County. The work you all do is very important. 🌲🌲🌲

from Joan Plisko she/her/hers to everyone: 7:10 PM

Thank You Cathy.

from Justin Gallardo to everyone: 7:10 PM

Thank you, councilwoman

from Joan Plisko she/her/hers (privately): 7:16 PM

can you mute that announcement when folks join?

from Brian Fath (privately): 7:18 PM

Brian, this link shows how to change settings to stop the "has joined the meeting":

<https://www.montana.edu/uit/news/20772/tip-of-the-week-change-or-mute-sounds-when-attendees-join-a-webex-meeting>

from Carol Newill (privately): 7:19 PM

Brian, I think if you go to Meeting Settings, you can turn off the notification of people joining or leaving the meeting. Go to Preferences, then under Alerts uncick the box "participant Joins the Meeting.

from Kristin to everyone: 7:20 PM

Thomas, I'm interested in hearing how the last state amendment is affecting property owners' ability to protect mature forest in Baltimore County.

to Brian Fath (privately): 7:21 PM

I think the sound is now off as people enter or leave meeting

from cathy bevins to everyone: 7:22 PM

Can this PowerPoint be sent to my office as well? Council6@baltimorecountymd.gov

to cathy bevins (privately): 7:25 PM

Yes, I will receive the copy of the presentation tomorrow and send it to you.

from Katie Lautar to everyone: 7:27 PM

Thanks for your work!

from Joan Plisko she/her/hers to everyone: 7:28 PM

Cathy, we will make sure your office gets a copy.

from Thomas A. Krispin to everyone: 7:28 PM

Thank you sir! And a pleasure to meet you (virtually). I'm happy to talk to you more about my section and what we do if you have time.

from Kristin to everyone: 7:30 PM

The M&M agreement length in Montgomery County is now 5 years, but is often extended beyond that.

from Carol Newill to everyone: 7:30 PM

I understand that Carroll County maintenance length is 3 years but if the site is not doing well then another 3 years are added.

from Mahnaz Mazaheri Assadi to everyone: 7:34 PM

How are you dealing with the endangered spevies?

from Matthew Baker to everyone: 7:37 PM

Don, can you please comment on how th length of time may vary for monitoring of slower growing species or those more sensitvie to competition? 3y may be adequate for pioneers but is clearly inadequate for other mid-successional species.

from Andy Miller (privately): 7:38 PM

is there a way you can save the current participant list? I couldn't keep up with new names and can't seem to just copy it.

from Joan Plisko she/her/hers to everyone: 7:39 PM

We will get to Q & A after all speakers. Thank you for your questions in the chat box.

from Carol Newill to everyone: 7:40 PM

Will want to ask Dr. Hairston-Strang how many jurisdictions there are in the state, each of which has its own Forest Conservation code.

from Mahnaz Mazaheri Assadi to everyone: 7:41 PM

thank you I got it.

from Don Callihan to everyone: 7:41 PM

Each county plus Baltimore City

from Kristin to everyone: 7:41 PM

And other cities in MD

from Marian Honeczy MD Forest Service to everyone: 7:43 PM

Marian Honeczy, Supervisor Urban & Community Forestry. Oversee the implementation at the state and local level.
marian.honeczy@maryland.gov

from Andy Miller (privately): 7:43 PM

need to save the chat too - I'm just typing as fast as I can

from Marian Honeczy MD Forest Service to everyone: 7:45 PM

Every county but 2 (Allegany and Garrett who are exempt) plus 44 of the 161 municipalities. The others delegated to their counities or do not have both planning and zoning.

from Matthew Baker to everyone: 7:46 PM

AHS: how do you afford maintenance of planted areas? Suggest connecting with Universities of Maryland who have sunk communiting and air travel carbon costs for which they need to purchase offsets to meet carbon neutrality goals. Why shouldn't state universities purchase local recs to help sustain county plantings? What would help is appropriate crediting of maintenance, what is the long term value of such offsets in helping the County reach its survival goals.

from Kristin to everyone: 7:50 PM

Amazing. How many different species were planted?

from Thomas A. Krispin to everyone: 7:50 PM

Is CREP planting protections still for 15 years?

from Mahnaz Mazaheri Assadi to everyone: 7:51 PM

Congradualtion this is exciting to know about native species.

from Mahnaz Mazaheri Assadi to everyone: 7:52 PM

about native species doubled

from Don Callihan to everyone: 7:54 PM

What is the healthy density of mature forest compared with

from Don Callihan to everyone: 7:55 PM

What is the healthy density of mature forest after 10 years compared with the density of saplings planted? What is the longer term goal?

from Mahnaz Mazaheri Assadi to everyone: 7:58 PM

I am interested

from Carol Newill to everyone: 7:59 PM

AHS: Baltimore City is updating its list of tree species choices taking into account the overall climate zone shift that seems to be occurring. For example, using Southern Red Oak rather than Northern Red Oak. Do you see other jurisdictions considering this?

from Kristin to everyone: 8:00 PM

Two of my favorite resources from forestadaptation.org:

https://forestadaptation.org/sites/default/files/MAR5_piedmont_1x1_10212021.pdf,

https://forestadaptation.org/sites/default/files/MAR6_coastal_species_1x1_10212021.pdf.

We are working to incorporate these results into our native species list in Montgomery County.

from Matthew Baker to everyone: 8:07 PM

Great answer Don, but that inherently requires a LOT more maintenance than you get from a 3 year program...your approach seems at odds with what is being required by law...

from Debra Shindle to everyone: 8:07 PM

I have to jump for another meeting. Thank you all for your hard work and we look forward to continue to be part of your extended team. Debra from BC Property Management

from Deborah Kleinmann to everyone: 8:08 PM

Does someone know how to label a specimen tree in the county and are they protected on private property that folks want to develop?

from Don Callihan to everyone: 8:10 PM

Would appreciate comments on the importance (and possibility) of some focus on deer management [which is undeniably controversial in Baltimore County].

from Deborah Kleinmann to everyone: 8:15 PM

We had a tree cut down and left a snag. We have had so many species of birds nest and visit that snag.

from Kristin to everyone: 8:15 PM

Yes!

from Israel Patoka to everyone: 8:15 PM

My wife who is listening in says Montgomery Co.

from Carol Newill to everyone: 8:17 PM

Don Outen, can you please share that with us at CEQ re climate change considerations?

from Don Callihan to everyone: 8:17 PM

Lots of evidence is being gathered showing that invasives thought to be limited to southern states are migrating north and that Maryland will be like Georgia in the future.

from Don Callihan to everyone: 8:19 PM

<https://www.isa-arbor.com/store/product/104/>

from Don Callihan to everyone: 8:20 PM

Best Management Practices - Tree Planting, Second Edition (2014)

from John R Alexander to everyone: 8:20 PM

Reforestation is the CEQ question, but it would be better to require developers to save forest via more compact development, rather than trying to regrow forest on or off site.

from John R Alexander to everyone: 8:22 PM

what counties have the most successful reforestation requirements?

from Israel Patoka to everyone: 8:22 PM

I have to jump into another meeting to say a few words, but I hope to return before this meeting ends.

from Anne Hairston-Strang to everyone: 8:22 PM

@Don Callihan We plant 300 to 450 seedlings, looking for 200ish around 10 years, and 100 or less after 30 or 40 years.

from Anne Hairston-Strang to everyone: 8:23 PM

Per acre

from Kristin to everyone: 8:25 PM

We have had good experience requiring 0.75-2.5" at planting 100-200 per acre with 75-100% survival requirements

from Joan Plisko she/her/hers to everyone: 8:28 PM

Thank you to Tom, Don, and Anne for great presentations. We appreciate your great work and time.

from Anne Hairston-Strang to everyone: 8:29 PM

Marian mentioned 700-800 trees per acre, which is common for plantings without tree shelters. With higher shelter costs, we plant fewer per acre (300-450).

from Carol Newill to everyone: 8:29 PM

Thank you!!

from Katie Lautar to everyone: 8:29 PM

Thank you

from Bonnie Sorak to everyone: 8:29 PM

Great meeting. Thanks!

from Jennifer Aiosa to everyone: 8:29 PM

Thank you!

from Christopher Langway "Tucker" to everyone: 8:30 PM

Thank you Brian.

from Joan Plisko she/her/hers to everyone: 8:30 PM

was this recorded?

from Valerie Androutsopoulos to everyone: 8:31 PM

Can he wave?

from Joan Plisko she/her/hers to everyone: 8:31 PM

Thank you Carol for organizing this evening!

from Carol Newill to everyone: 8:31 PM

Yes, the symposium was videotaped. I believe the taping has been turned off now.

from Carol Newill to everyone: 8:35 PM

Anyone wanting to view the video can reach out to Brian Lindley.