# **November 2024 Meeting Minutes**

Council Members Present: Jack Buckley, Dicken Crane, Jeff Collins, Jennifer Wilson, Melissa Harper, Phil Doherty, Laura Jasinski, Kevin O’Shea

Council Members Absent: Vivian Ortiz, Susasn Smiley, Ann Canedy, Ted Dooley, Dennis Smith

DCR Staff Attendees: Matt Perry, Paul Cavanagh, Dennis Fitzpatrick, Brian Arrigo, Mike Nelson, Chloe Gotsis, Ilyse Wolberg

Public Attendees as Registered**:** Wendy Machmuller, Sarah Freeman, Neil Rhein, Karl Dziura, Jun Lee, Glen Ayers, Denis Laforce, Chuck Anastas, Chris Redfern, Chip Jones, Cabell Eames, Bill Gibbons, Bill Boles, Arthur Freedman, Andres Ripley, Andrea Amour, Amanda Partaledis, Chris Egan, Robert Amrich

## Call to Meeting, 9:00am – Chair Jack Buckley

Chair Buckley welcomed everyone to the meeting and did a roll call of councilors present. He said he had the opportunity to attend the Mass Trails Conference on October 26 and that the Stakeholders Committee held a listening session during the conference that Mr. Perry sent out a summary of to the council. He said that he observed a “culture of criticism” of DCR and that there are many things that can be criticized, but sometimes things that happened a decade ago are still being brought up. He said he encouraged people with a complaint to come to a council meeting and use the public comment period to express concerns. He said that DCR has a good commissioner and as an agency they are improving what they do, and that one of the challenges is to get people to focus on the good that DCR is doing instead of focusing on past mistakes. Chair Buckley said he also attended the Belle Isle Marsh RMP public meeting and that it was a good meeting and that DCR always does a good job with those meetings. He said that it would be nice to use the December meeting at the State House as a way to get advocacy groups to attend and talk about the work DCR is doing. Finally, Chair Buckley shared the Mass Parks for All sticker that he got at the Trails Conference and said he hopes to see one on every car that goes to a state park.

## DCR Report – Commissioner Brian Arrigo

### Fires

Commissioner Arrigo recognized the DCR firefighters who have been working around the clock over the last several weeks to help local communities detect, respond to and effectively manage record brush fires burning across the state. He joined Governor Healey and DCR’s Chief Fire Warden Dave Celino earlier in the week for a press conference thanking our fire fighters and first responders and urging the public to do their part to contain the fire risk. DCR is leading the charge in managing these challenges working with MEMA, DFS, and municipal fire departments. The agency is actively operating the Fire Tower network, which provides early detection of fires—a crucial step in wildfire detection and swift action.

Commissioner Arrigo said that the data on numbers of fires and acres burned is changing several times each day but gave the following numbers from the previous night:

* There were 211 fires in October and 307 fires in November, for a total of 518 fires burning 1,569 acres since Oct. 1, 2024.
* For context, we see about 15 fires in October and about 20 in November in an average year. All of last year’s fires, from January through December, burned a total of 1,676 acres.
* Additionally, we had to close F. Gilbert Hills State Forest, which has since reopened and Boxford State Forest due to ongoing fire activity in these parks.

Massachusetts is a member of the Northeastern Forest Fire Protection Compact, an interagency group comprised of the six New England states, New York, and four eastern Canadian provinces and provides international and interstate wildland fire mutual aid assistance. Last week, the state asked the compact for assistance in fighting the fires across Massachusetts and have welcomed help from Maine and New Hampshire.

Commissioner Arrigo noted that nearly all fire activity is human-caused, with abandoned campfires being a leading cause. He asked that everyone please ensure all fires are completely extinguished. He also reminded the public that, due to the ongoing drought, there should be no outdoor fires at this time. DCR has implemented a ban on open flames and charcoal fires in all state parks, and many are temporarily closed. Please follow local fire restrictions and use common sense to prevent accidents.

### Veterans Day

In honor of Veterans Day, DCR offered free parking at all parks from Saturday, November 9, to Monday, November 11. This has become a yearly tradition for the agency. In addition, DCR has installed designated veterans only parking spaces at several DCR parks across the state.

### Indigenous Peoples Day

More than 400 visitors gathered at Fall River Heritage State Park to honor Indigenous Peoples’ Day, paying tribute to the Pocasset Tribe of the Wampanoag Nation. The Tribe, deeply connected to the area, often refers to the park as their “second home.” A tribal spokesperson remarked, “it was a blessed day filled with learning, creativity, and exploration with friends and family.”  The celebration featured hands-on activities like making dream catchers and cornhusk dolls, alongside exhibits showcasing the Pocasset village diorama.  Commissioner Arrigo noted that as we celebrate Indigenous Peoples’ Day each year, it's important to recognize the public lands cherished by Indigenous communities and the importance of honoring their stories.

### Staff News

In early November, which is Native American Heritage Month, DCR welcomed new Indigenous People's Partnership Coordinator Leah Hopkins. This newly created position will help us foster meaningful relationships and improve the understanding and collaboration between DCR and Indigenous communities across Massachusetts. Leah is an enrolled member of the Narragansett Tribe with nearly two decades of experience building bridges between institutions and Tribal Nations. In addition to serving as DCR’s liaison to the state’s many Indigenous communities and Tribal Nations, Leah will also launch the First People, First Stewards Partnership, a new effort by DCR to better acknowledge and understand the role of the lands the agency stewards in the cultural continuity, well-being, and sovereignty of Indigenous Peoples. Her work will help forge connections between DCR land management, traditional ecological knowledge, and Indigenous culture and to elevate the Native voice in the DCR’s stewardship of the land and waters across the state.

### Memorial Drive Update

At last month’s meeting, Commissioner Arrigo announced that DCR’s Design and Engineering Division was working on a range of planned safety and accessibility improvements along Memorial Drive from Magazine Street to Audrey Street via the BU Bridge rotary. He reported that work is underway and should be completed Thanksgiving week, adding that DCR is also working with MassDOT on the Reid Overpass project that will redesign the intersection of Memorial Drive and the BU Bridge.

### Dam Day 2024

On October 13th, more than 700 adventurous visitors braved the elements to stroll along the Wachusett Reservoir. The dam opens twice a year—in the spring and fall—offering the perfect chance to soak in the stunning scenery and engage with our amazing staff. Commissioner Arrigo encouraged everyone who hasn’t been to check out the next Dam Day next spring.

### Stewardship Corps

The Commissioner announced that after a successful first year, DCR is continuing the Stewardship Corps for a second year with the Lawrence Boys and Girls Club. DCR received a second Hearts of Stihl grant for $20,000 to continue this program that provides fun and educations seminars for Fall River and Lawrence middle and high school students about the incredible work being done at the agency.  The DCR team also received the Pioneer in Partnership Award for the DCR Stewardship Corps from Essex Heritage, recognizing these exceptional partnerships that positively impact the Heritage Area.

### Cheers to Clean, Great Water!

DCR’s Division of Water Supply Protection is emphasizing the importance of preserving the Wachusett Reservoir Watershed. The message is clear: Pure Water Makes Great Beer!  To further this mission, a fun public educational outreach initiative was launched in collaboration with local breweries and was kicked off by providing corn hole boards and posters to the breweries. The agency is now developing an educational program to highlight the relationship between water quality and the brewing process. This exciting opportunity allows DCR to engage with the broader brewery community and the public.

### 2024 MassTrails Conference Wrap-Up

Last month, DCR partnered with the Massachusetts Recreational Trails Advisory Board (MARTAB), the Recreational Trails Program/MassTrails and the Conine Family Foundation/HubLuv, to host the MassTrails Conference. The five-day hybrid conference drew more than 325 attendees and 28 exhibitors and included workshops, field trips, and a full-day program at the DCU Center in Worcester. Some of the highlights included a keynote by Rachel Hailey of DEI Outdoors, 20 sessions, and a legislator panel during lunch. DCR attendees and presenters included staff from the Trails and Greenways and Operations teams, as well as some members of the Stewardship Council.

### Urban Forestry EJ Grants

DCR awarded more than $400,000 to seven environmental justice communities and organizations to expand the urban tree canopy across the state. These grants are distributed by our Urban and Community Forestry Department as part of a $1.5 billion investment in the U.S. Department of Agriculture’s Forest Service Urban and Community Forestry Program from President Biden’s Inflation Reduction Act (IRA). This funding will be used for tree planting and aftercare, tree and stump removal, community engagement and education, urban wood utilization, and workforce development. Overall, these projects will fund the planting and care of more than 500 trees in Waltham, Ludlow, Medford, Somerville, Boston, Oxford, South Hadley and Westborough. The increased tree canopy created through this program will bring positive environmental, public health, and energy efficiency benefits to residents living and working in these communities by improving air quality, reducing energy use, and providing habitat for local birds and wildlife.

### Norwottuck Rail Trail Plowing

Commissioner Arrigo said that DCR has announced they will be piloting winter plowing along the Norwottuck Rail Trail from Northampton to UMass Amherst to provide enhanced access throughout the winter season. The trail was originally designed for year-round recreation, with walking and biking in warmer months and cross-country skiing and snowshoeing in winter. Because of inconsistent snowfall in recent years due to climate change, there has been an increased demand for year-round walking and biking on the trail. The plowing this winter will take place between Woodmont Street in Northampton and Swift Way in Amherst. In order to preserve the integrity of the trail, DCR will use specialized trail equipment to plow. No salt will be used along the trail to protect the surrounding ecological and agricultural landscapes, but spot sanding may be used to ensure the safety of all trail users.

### Fall & Halloween Fun Across DCR Properties

This fall, DCR properties across the state hosted a range of festive fall and Halloween events for all ages, here are some of the highlights:

* A Halloween Luminary Walk at Wachusett Reservoir where visitors enjoyed a magical walk along the Mass Central Rail Trail in Sterling, illuminated by LED luminaries and surrounded by the sounds of nature.
* Pumpkin Carving at Wachusett Mountain to celebrate the end of a successful season and give thanks to seasonal staff for their hard work.
* A Full Moon Hike at Borderland State Park under the Hunter’s Moon, plus two nights of Haunted Hayrides, attracting over 1,000 people for these family-friendly activities.
* The second Annual Pet Parade at Breakheart Reservation featuring adorable pups in costume and prizes for the best outfits.
* The annual Pumpkin Parade at Pope John Paul Park, a festive parade with music, games, and plenty of Halloween fun.
* A Día de los Muertos or the Day of the Dead celebration at Great Falls Discovery Center with a vibrant altar honoring lost loved ones through colorful marigolds and community participation.

### Branding Exercise

DCR has begun early discussions around refreshing the agency’s brand as part of the Strategic Readiness Recommendations. The project was paused until June 2024 to allow the new administration to set the tone and vision for the project and the agency.  The goal of this project is to assess and refresh our current brand to ensure visual brand aligns with our agency’s mission, values and staff engagement.   Changes will include updates to the logo, signage, and uniforms, but the agency’s mission and name will remain the same. In July, DCR contracted with Argus, a branding and behavior change marketing agency for an 18-month brand refresh project. We previously worked with Argus on our DCR’s Working Forest Initiative. Currently, the project is in the research phase, which includes surveys, stakeholder engagement, and a brand audit. Argus is working with a core team leading this initiative as well as an Employee Advisory Committee comprised of DCR staff from departments across the agency. Commissioner Arrigo said that they will be reaching out to coucnilors as part of this effort in the coming weeks.

### Councilor Questions and Comments

In response to the hiring of Indigenous People’s Partnership Coordinator Leah Hopkins, Chair Buckley commented that he went to the Addison Gallery at Phillips Andover Academy and they had a show contrasting the work of an Indigenous artist Kay Walkingstick with the artists from the Hudson River School and that they were selling a baseball cap that said “You’re Walking on Native Land.”

Chair Buckley asked about the 1200% increase in fires and its relationship to climate change and whether any of the money spent on resiliency by the administration is being directed towards training fire departments on how to deal with wildfires. He said that he worries it is going to increase and that the training is important.

Councilor Collins commented that forest land firefighting can include the use of chemical suppressants including fertilizers. He noted that this can be a problem with invasive species. He said he hopes that the way these fires are being fought are being considered along with forest planning.

## Regular Business I

### Presentation on DCR Emergency Planning – Dennis Fitzpatrick, Emergency Management Resource Coordinator

Mr. Fitzpatrick presented to the council on DCR’s Emergency Management Program and their work with other state agencies to prepare for weather events and large gatherings on DCR property.

### After the presentation concluded, Councilors were given the opportunity for questions and comments.

Chair Buckley thanked Mr. Fitzpatrick for the presentation and for the work that he does. He said it is an example of the work that DCR does that people don’t see.

Councilor Collins asked about communication between agencies in the event of an emergency.

Mr. Fitzpatrick said that there is a process and that the Massachusetts Emergency Management Agency are the dispatchers for DCR and anything that happens on DCR property. They have a matrix that lets them know who to call. Larger events like a snowstorm are when each agency activates their emergency operations centers, and MEMA coordinates the interagency communication through their State Emergency Operation Center. DCR has staff that works with MEMA along with other agencies, utility companies, etc., and the communication happens coordinated through MEMA.

Councilor Collins asked if during a big event, does all communication have to happen through MEMA or if there can be direct coordination between DCR and other agencies.

Mr. Fitzpatrick said that it does happen that way as well and it depends on the situation. He said that when a storm is happening, they can contact a State Police barracks directly for what is needed. For larger things, the information goes through MEMA.

Councilor Wilson asked about active shooter training and whether there was other training for de-escalation and who in the agency gets the training.

Mr. Fitzpatrick said that the training is for “active threats,” not just shootings. He said that they haven’t administered any trainings to DCR staff yet, but they are working with EEA to develop the guidance and what kind of training is needed. The hope is that the training can go to all DCR staff through a train the trainer format.

Councilor Wilson asked about plowing and whether municipalities plow some parkways locally.

Mr. Fitzpatrick said that it is only MassDOT and DCR doing the parkway roads now.

Councilor Wilson asked how it is determined who plows the road, and how the public can find out who is responsible for the plowing.

Mr. Fitzpatrick said that they have the DCR parkways snow plan available online and it lists out which areas are done by MassDOT and which ones by DCR. Calls come in from the State Police to MEMA, and MEMA contacts Dennis at the storm center and figures out who needs to be called to take care of a particular road.

### Presentation on Resource Management Plans – Paul Cavanagh, Resource Management Planner

Mr. Cavanagh gave an update on the Resource Management Plan (RMP) process and changes being made to make it more efficient.

### After the presentation concluded, Councilors were given the opportunity for questions and comments.

Councilor Jasinski thanked Mr. Cavanagh for the presentation. She asked about how the program works with friends groups to get comments on plans, and to get their contacts of potentially interested parties.

Mr. Cavanagh said that when they schedule a public meeting for an RMP, they talk with Park Staff to help identify interested groups and they do special mailings to contact them. He said with the Blackstone RMPs, he had a list of 100 individuals and municipal departments that were contacted to engage local stakeholders. He also reaches out to the Massachusetts State Forests and Parks Friends Network to have them promote the meeting. In addition, Dan Cushing, Director of Public Engagement, does outreach for the public meetings. He said that based on the response to the Blackstone RMPs based on meeting attendance and comments, the outreach seems to have worked.

Councilor Crane asked if Forest Resource Management Plans are included in Resource Management Plans.

Mr. Cavanagh said that when Forest Resource Management Plans exist, they are referenced, and their recommendations are included in the RMPs. He said for many places there are not Forest Resource Management Plans. He said that there are conversations about making a statewide plan, and if that is done, they will work to incorporate that as well. He said that when they go through internal review, the most active and vocal reviewers are the foresters. They give a lot of information from them which leads to a lot of good conversations.

Chair Buckley commented that he would like to see the Commissioner insert his concept of constructive approval for the agency. He gave as an example that if you are given 21 days for a response and don’t respond, then the assumption is that you approve it. He said that the delays have been frustrating and he would like to see anything that can help keep the process moving. He also said that if the plans are not meeting the timelines that Mr. Cavanagh lays out, that he let the Chair of the Policy Committee know that they are falling behind. He said that approval of RMPs is one of the council’s only legislative roles, and that they need to work to hold things accountable.

Mr. Cavanagh said that Commissioner Arrigo and Deputy Commissioner Geigis are supportive of the plan to make approval of the RMPs more efficient. He said that when Deputy Commissioner Geigis sends out the plans to the Core Team for approval, they are told they have 21 days and if they don’t respond, it is interpreted as approval to move the documents on to the Commissioner. He said it is a new process and it can take a while to optimize a new process and for the people who are sent the documents to understand the implications.

Councilor Wilson said that the policy committee spends a lot of time working with Paul and talking about RMPs, and that going back over the past five years, one challenge has been the tension between having the perfect, comprehensive document that has everything they way everyone in the agency would like versus having a solid working document that will serve as a living document. She said that what Mr. Cavanagh said about when they learn something new, not holding up the process to go back will be very helpful moving things forward. She said that she also appreciates the Commissioners view of RMPs as foundational planning documents. She said that the goal is for every place to have an RMP and then time is spent going back and seeing how they can be updated and treating them like the living documents they should be.

### Approval of Minutes

Councilor Wilson made a motion to approve the minutes from the October 11, 2024 Stewardship Council meeting.

Councilor Crane seconded the motion.

Mr. Collins noted that he sent Mr. Perry a brief edit.

### Roll Call on Approval of Minutes

Councilor Harper: Abstain

Councilor Jasinski: Abstain

Councilor Wilson: Yes

Councilor Crane: Yes

Councilor Collins: Yes

Councilor Doherty: Yes

Councilor O’Shea: Yes

Chair Buckley: Yes

The October 11, 2024 minutes were approved.

### Public Comment

[Guidelines for Public Comment are available on the DCR Stewardship Council website.](https://www.mass.gov/doc/dcr-stewardship-council-public-comment-guidelines/download)

Chairman Buckley invited members of the public for comment. The following members of the public gave comments:

Chris Redfern – Friends of the Fells

Andrea Amour – Save King’s Beach

Sarah Freeman – Jamaica Plain

Glen Ayers – Greenfield

Chip Jones – Snowmobile Association of Massachusetts

Karl Dziura – Conway

Wendy Machmuller – Friends of Fairsted

In addition to the comments given, a letter was sent to the Council from Charlotte Perry which is included at the end of the minutes.

## Regular Business II

### Discussion of the 2025 Meeting Schedule

Mr. Perry shared the proposed meeting schedule from the Stakeholders Committee with the Council:

January 16, 2025

February 13, 2025

March 13, 2025

April 10, 2025 – In Person: Borderland (Easton) 1pm start

May 8, 2025

June 12, 2025 – In Person: Boston Harbor Islands 1pm start

July 10, 2025

No August Meeting

September 11, 2025 – In Person: Mt. Holyoke Range (Amherst) 1pm start

October 9, 2025

November 13, 2025

December 11, 2025 – In Person: DCR Headquarters (Transportation Building) 1pm start

Councilor Harper said that the reason the Stakeholders Committee proposed changes including moving the first in-person meeting from March to April is because of the challenges that the council has had with attendance at in-person meetings came from a combination of the time of year and the time of day that the meetings are being held. She said the 1pm start allows more time for the councilors to get to the locations and more opportunity for the public to participate.

Councilor Wilson said that the last meeting at the DCR Headquarters did not have a lot of staff attendance and that the room was not accommodating for the public, and that they should think about how to make that meeting good for both staff and the public.

Chair Buckley said that the meeting was at 5pm which was not a good time and that he agrees with Councilor Wilson’s comments. He asked why the committee decided to move away from the State House.

Councilor Harper said that it is to allow for DCR staff participation. She said that they felt the 5pm start hindered staff participation and that by doing it in the middle of the day, it will allow more of an opportunity for staff to attend.

Councilor Collins moved to accept the proposed 2025 meeting schedule.

Councilor Wilson seconded the motion.

The schedule was approved.

### Committee Updates

#### Policy Committee

Councilor Wilson reported that the committee is meeting on Tuesday, November 26 at 8am. She said that the last meeting had a posting error and that when it was realized, the meeting was disbanded.

#### Stakeholders

Councilor Harper reported that the committee spent a lot of time at their last meeting ironing out the meeting schedule that was just approved. They also discussed the assessment of term ends for existing council members and they will be discussing how to prioritize filling seats for seats that will be open next year.

#### Conservation

Councilor Collins reported that he and Councilor Crane discussed possible presentations for the committee. He said that they will reach out to staff to set those up. They are also looking forward to the release of the state’s biodiversity goals

## Adjournment

Councilor Buckley thanked everyone for joining and adjourned the meeting.

Please check the DCR Stewardship Council webpage for notice of upcoming meetings. <https://www.mass.gov/service-details/dcr-stewardship-council>

Charlotte Perry

222 Arrowhead Circle

Ashland, MA 01721

November 12, 2024

Mr. Jack Buckley,

Chair of the DCR Stewardship Council

Department of Conservation & Recreation

State Transportation Building,

10 Park Plaza | Suite 6620

Boston, MA 02116

Dear Mr. Chairman Buckley,

Temperate forests are some of the most altered habitats on the planet. Massachusetts is one of the most heavily forested states in the country. Reforesting and protecting the temperate forests will help mitigate the effects of climate change. On average, temperate forests can hold one hundred metric tons of carbon per hectare. These ecosystems can help Massachusetts meet emission reduction goals as outlined by The Massachusetts Clean Energy and Climate Plan for 2050. Reforestation projects can focus on various aspects of the forest, but Massachusetts is best suited to narrow in on increasing carbon sequestration. Please refer to the literature summary and works referenced on the attached page if you have questions or concerns about the included information.

Middlesex County is the second least forested county in the state. As a resident of this area, I have noticed that reforestation efforts could be increased. One organization already doing this in Massachusetts is the Woodlands Partnership which works in Berkshire and Franklin Counties, focusing on conserving forests and the land-based economy in the northwesternmost part of the state. Using the Woodlands Partnership as a guide, I propose that Massachusetts implement similar coalitions across the state, starting in Middlesex County.

Some may argue that reforesting in this manner and protecting the forests afterward will hurt the local economies because there will be no wood harvesting. However, selective cutting in reforested areas has been studied as both a way to utilize the economic value of the land and offset restoration costs. Stands of forests are typically able to regrow significantly in 16 years, so using a rotational harvesting method would conserve forest areas without losing the economic value. It is important to note that this method will only work if over-harvesting is entirely stopped, and rotational harvesting is favored instead. During the growth periods financial benefits could be offered to those who depend on forest economies, so that they would not lose their essential income. In addition to cost being offset by selective cutting, there has been a study that synthesizes data from other restoration processes to gain insight into the most cost-effective methods. They found that the most cost-effective methods included planting that was varied over both space and time. These lower cost methods combined with other methods found to be successful in the Woodlands Partnership projects will lead to a lower overall cost while still implementing the best strategies to meet restoration goals.

It should be noted that there is evidence that carbon sequestering abilities of temperate forests could be overestimated because of how tree biology changes with increased temperatures that would come with global climate change. However, the biological change to trees from temperature does not eliminate the capability of trees and soil to hold carbon. In fact, soil can store approximately 60 US tons of organic carbon per hectare for broadleaf dominant forests. Even if the biology of a forest changes, the net carbon sequestration will still help fight climate change while providing essential habitat and increasing the quality of living in Massachusetts through increased green space. Green spaces have a positive correlation with mental and physical health benefits, so it is not only good for the environment but also for people living in the area. The argument that carbon sequestration capability changes as climate change accelerates serves to highlight that temperate forest restoration cannot be the only climate change mitigation method in action. Restoration is a good place to start, but it cannot be where Massachusetts stops.

The first step to creating a coalition for this region is to propose an initiative to the respective leaders and representatives, starting with the DCR Stewardship Councilors. Reaching out the Woodlands Partnership executives such as Kate Conlin, the Coordinator, or Lisa Hayden, the Administrative Agent, for guidance on setting up such projects is also a good starting place. After getting this feedback, it would be time to include regional planners in the county and start making plans for how reforestation and protection could occur. Seventy five percent of the forested land is privately owned, so getting town citizens and private owners involved will be crucial to the program’s success. This could be through education programs run through town and city halls that educate people on the full benefits of reforestation programs with examples from the Woodlands Partnership and MassWoods. Emphasizing the goals and improved quality of our state will help citizens get invested. The state should aim to set up a regional forest restoration project in Middlesex County that covers a collective 10 miles of forest, both private and public, by 2030. One of the largest barriers facing temperate forest restoration is long term funding, so this project would need to include reaching out to previous environmental donors and organizations that can set up a fund that would feed into the projects, or by petitioning to dedicate a part of the state budget to the project per year. Once this project gets off its feet in Middlesex County, similar projects should be implemented in other less forested regions such as Essex and Norfolk Counties. Reforestation and preservation will improve our county if you are willing to take the steps to get there.

Sincerely,

Charlotte Perry

Literature Summary:

Temperate forests are some of the most altered ecosystems on the planet for many reasons, such as agriculture, wood harvesting, development, wildfires, invasive species, and pathogens (9, 5). Temperate forests are vital ecosystems for species biodiversity and as carbon sink due to both soil sequestration and organic sequestering (6). Temperate forest restoration projects can come in many forms and focus on different factors. Some projects focus on maximizing the efficiency of the ecosystem (4), while others focus on increasing the biodiversity (10), or protection after restoration occurs (5). These goals usually overlap but require different implementation methods to work to their full potential. The Woodlands Partnership already works on forest restoration focusing on forest function and preserving the current land-based economy, while UMASSAmherst has been running several educational projects to help landowners make decisions about their land (11, 3).

Climate change is a crucial factor in this discussion because of the temperate forests’ ability to sequester carbon, but also because of how climate change will impact the forest going forward. One study suggests that carbon sink capabilities have been overestimated because of the failure to include how biology changes when there is a warmer spring and/or summer (8). Looking at reforestation from every angle helps determine its feasibility in aiding the mitigation of climate change and practicality of using these methods. One major barrier to reforestation projects is lack of continuous funding that aims at long term goals (7) and while the US is already on a path to greater temperate forest conservation there is always the possibility to do better. There are incentives coming forward such as low-cost options that can help offset the budgeting costs (4, 10). However, there is more than just a monetary cost to consider because a loss of green space could also negatively impact human physical and mental health (1). Temperate forests are important ecosystems to facilitate and protect to fight the climate crisis.

Works Cited:

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[10] Werden L et al. 2024. Assessing innovations for upscaling forest landscape restoration. One Earth. 7(9):1515-1528.

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