

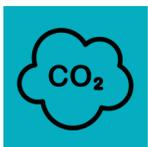
TRAILS ENHANCE RESILIENCY



CLIMATE CHANGE WILL BRING MANY PUBLIC HEALTH AND SAFETY THREATS TO OUR COMMUNITIES These threats include respiratory and cardiovascular diseases, injuries, premature deaths, and illnesses. They will affect all of us, and will be worse for the most vulnerable populations, such as older individuals, low-income communities, and those living in places that are more prone to natural disaster (Bhattacharya et al., 2019). Fortunately, trails can help address these threats, and strengthen our communities by connecting us to the places and people in our lives, and by providing the environmental protections to create richer, more sustainable places to live.



TRAILS CAN HELP MITIGATE CLIMATE CHANGE AND SERVE AS HABITAT FOR PLANTS AND WILDLIFE Forested areas help keep water in the soil, prevent erosion, and provide migration corridors for wildlife and plant species. Planting trees along heavily-used trails can help on hot days to reduce heat exposure and lower temperatures on the ground (O'toole et al., 2019). Even one tree can make a difference to clean air and save energy: In twenty years, one red maple can remove 3,100 pounds of carbon dioxide from the atmosphere; save electricity and fuel for cooling and heating; intercept 27,000 gallons of rainfall and avoid 4,800 gallons of runoff; and filter 15 pounds of ozone, nitrogen dioxide, and sulfur dioxide from the air we breathe (itree, 2020).



TRAILS CAN HELP DECREASE OUR CARBON FOOTPRINT

Each 1% of automobile travel replaced by walking or cycling decreases motor vehicle emissions by 2% to 4% (Litman, 2010). The transportation sector is the largest contributor to greenhouse gas (GHG) emissions, emitting 29% of all U.S. GHG emissions in America (Bhattacharya et al., 2019). Walking and biking require no fossil fuels, reducing greenhouse gases in the atmosphere.



RECOMMENDATIONS

TRAILS NEED TO FEEL SAFE AND PROTECTED: Many Americans are willing to walk or bike, but only if the facilities are safe, protected, and connected to off-road networks. The primary reason most Americans are cautious to switch to cycling for their trips is due to real and perceived safety risks, primarily associated with a lack of off-road or protected facilities (Bhattacharya et al., 2019).

REPLACE SHORT VEHICLE TRIPS: Over half (53%) of all trips taken are within 3 miles or less, and over a quarter (28%) of all trips taken are within 1 mile or less. Promoting nonmotorized transportation for short trips could make a big impact on emission reduction. Three miles is equivalent to a 20-minute bike ride for an average adult, and 1 mile is equivalent to a 20-minute walk for an average adult (Bhattacharya et al., 2019).

CONNECT TO TRANSPORTATION NETWORKS: Along with providing a trail, important considerations must be made regarding land use, such as: identifying key destinations and the distance that people are traveling to activities; the safety, accessibility, and quality of roads and paths; and the affordability and integration of other transportation options (such as walking, cycling, public transit, taxi, delivery services, electronic communication, etc.) (Litman, 2010).

CASE STUDY: TRAILS & OPEN SPACE SAVE DOWNTOWN MERIDEN FROM FLOODING

"We had storms that buried us under water. We used to have canoes going down the streets. We have [historic] pictures of police cars with water up to the windshield. The Meriden Green solved the flooding problem. It was the linchpin for downtown development. We haven't had a major flood since."

— Michael Rohde, former Mayor, City of Meriden

In the 1800's, the City of Meriden, Connecticut was famous for producing silver along Harbor Brook. Harbor Brook, however, was prone to disastrous flooding. After eleven devastating floods, the city center became contaminated, hazardous and abandoned (Rohde, 2020).

Due to continual advocacy, today downtown Meriden is lush and green. The land has been remediated and transformed, as part of the "Harbor Brook Flood Control and Linear Trail Project." The focal point is a park called the Meriden Green. Completed in 2016, the park acts like a sponge, absorbing flood water and saving nearby buildings and infrastructure from harm. It also provides habitat for native fish and wildlife in a flowing natural river, and contains an amphitheater; attractive Silver City Bridge; and a "Great Lawn," where you can find the farmer's market, public events and informal recreation (Weissberg, 2020).

The Meriden Green is the heart of a larger trail system called the Meriden Linear Trail, and is a key piece of the 100-mile Central Connecticut Loop Trail. The trail system conveniently connects users to public transportation options (Weissberg, 2020). Today, downtown Meriden does not flood, a testament that the award-winning Harbor Brook Flood Control and Linear Trail Project is an example of using trails and open space as a solution to protect the community from natural disaster (Rohde, 2020).



As communities throughout the U.S. and the world cope with the devastating toll of COVID-19, the pandemic has brought a renewed focus on the importance of local

trails. The Trail Impact Series explores how local trails are vital assets for improving physical and mental health, building community, stimulating economies, and fostering climate resilience. The goal is to provide community leaders, trail planners, and advocates with evidence-based information on the benefits of trails, and recommendations for advancing informed design, policy and programming.

To view the series visit: <http://s.uconn.edu/trailimpacts>

Front Image: The Meriden Green. Photo Credit: Howard Weissberg, City of Meriden. Above Image: Community Health Center Farmers Market and UConn/Bike Walk CT Bicycle Event on the Meriden Green. Photo Credit: UConn PATHS Team.

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