

NEARBY NATURE

EVEN SMALL AMOUNTS CAN HAVE A POSITIVE IMPACT ON PEOPLE IN URBAN AREAS.



IMPROVES MENTAL HEALTH

People are happier, experience significantly higher well-being, and show significantly lower mental distress when they live in areas with greater amounts of green space.

BOOSTS ECONOMY

Shoppers are willing to travel a greater distance and spend up to 12% more for goods and services in central business districts having high quality tree campuses.

MITIGATES POLLUTION

Green walls and roofs are an eye-catching way to combat water pollution, improve air quality, and provide a thermal buffer from extreme temperatures.

GROCERY

MANAGES STORMWATER TO REDUCE FLOODING AND POLLUTION

Using engineered solutions like bioswales and rain gardens solves stormwater problems while contributing to more green space.

HELPS CHILDREN LEARN

Children with ADHD concentrate better following a 20-minute walk in an urban park than they do after equivalent walks in other urban settings.

INSPIRES PHYSICAL ACTIVITY

Residents living in areas with more green space are more likely to be physically active.

IMPROVES SOCIAL COHESION

The presence of nearby nature appears to enhance the strength of social ties among neighbors by encouraging use of common spaces, contributing to healthy neighborhoods.

A Pocket Guide to Outside Our Doors



Nature is an essential part of thriving human communities.

WE NEED NATURE MORE THAN EVER IN OUR CITIES.

The world is undergoing a surge in urban population growth, with more than half of all people now living in towns and cities.¹ Nature can be everywhere, even in cities, and research shows that it plays a critical role in the lives of those living in cities and towns. Nature can help us tackle urban environmental challenges such as **stormwater management, pollution reduction, and climate resiliency**. Nature also supports **the health and well-being of the people** that live in urban areas, offering proven benefits like stress reduction and opportunities for social connection.

Even small bits of nature in cities can serve important functions and provide multiple benefits. Nearby nature can include neighborhood parks, community gardens, leafy streetscapes, rain gardens, and bioswales, as well as green walls and roofs. No matter how small or large, these natural environments can serve double-duty: managing stormwater, buffering traffic, and improving air quality, while simultaneously providing many other benefits.

Together, we can design, build, and enjoy all of these elements of natural infrastructure to provide ecosystem services, as well as improve quality of life and help people in our communities to thrive.

*This summary is an overview of our more detailed publication *Outside Our Doors*, which explores the many benefits of urban nature for human health and wellness. Find the full publication at washingtonnature.org/cities.*



WashingtonNature.org/cities

HUMAN HEALTH AND WELL-BEING



Increased tree and shrub cover near schools has a **positive effect on student performance.**



A GROWING BODY OF SCIENTIFIC EVIDENCE suggests contact with nature provides a multitude of health benefits and may be an important factor in disease prevention and health promotion for people who live in urban areas.

NURTURING HAPPINESS, REDUCING STRESS

With urban living comes exposure to noise, pollution, and crowds. All this can negatively affect the mood, mental resilience, and cognitive capacity of even healthy individuals. Opportunities to experience urban nature—whether it’s just a leafy view out a window or actually being outside in nature—are key to the mental well-being of urban dwellers.² One of many studies, a big data analysis at the University of Exeter’s European Center for Environment and Human Health found a strong link between nearby nature and measures of mental health among people living in cities. **People are happier, experience significantly greater well-being, and show significantly lower mental distress and decreased stress when they live in areas with greater amounts of green space.**³

BETTER LEARNING, IMPROVED MENTAL PERFORMANCE

Crowds. Pavement. Noise. Traffic. This urban overload adds up, even impairing people’s ability to learn, concentrate, and solve problems. Results of many studies show that **encounters with nature help enhance positive emotions, boost attention capacity,⁴ and improve performance on cognitive memory assessments.**

Researchers at Stanford University studied affective and cognitive function before and after a 50-minute walk in either a natural environment or an urban environment

without nature. They found those who participated in a walk in nature showed greater decreases in anxiety and negative emotions while walks in nature-free environments resulted in decreased positive emotions.⁵

PROMOTING POSITIVE YOUTH DEVELOPMENT

Nearby nature provides a variety of educational benefits for youth, too. It has positive effects on attention, impulse control, and overall cognitive development. Multiple studies show benefit. One, led by The Nature Conservancy, along with researchers from Stanford University and the University of California, Santa Cruz, analyzed the effect of school green space in relation to other key factors like race and poverty using fifth grade standardized test scores from nearly 500 California schools.⁶

The result? It showed that the positive effect of nearby nature was even larger than the negative effect of poverty.⁷

City- and neighborhood-scale greening initiatives are important for many reasons, including opportunities for children to get the exposure to nature they need. For example, increased tree and shrub cover up to a half mile from schools has a positive effect on student performance. That suggests that nature-based solutions at a neighborhood scale can be a part of community-based and cost-effective strategies to gain educational benefits.⁸

COHESIVE COMMUNITIES

A COHESIVE SOCIETY

The characteristics of neighborhood common spaces play a real, and substantial, role in the development of social ties among neighbors. Such spaces enable and motivate individuals to connect with their fellow community members in an increasingly^{9,10} global world. Studies have found that the amount of vegetation in common spaces can predict the usage of those spaces, and are related to a sense of neighborhood safety and adjustment. One observational study looked at 59 outdoor common spaces in residential neighborhoods, 32 of which were relatively barren, while 27 had more greenery. Results showed that the more greenery, the more social activity. That, in turn, enhanced the strength of social ties among neighbors.^{11,12}

Social cohesion is especially beneficial for both youth and elderly. Youth in cohesive communities are less likely to participate in behaviors such as smoking,¹³ drinking, gang involvement, or drug use, as close-knit communities are better equipped to provide guidance and model behaviors.^{14,15,16,17,18,19,20,21,22,23} And when elderly individuals have strong social ties, they experience lower rates of mortality, reduced suicide rates, reduced fear of crime, and better physical health.

LOOKING FORWARD

BUILDING WITH NATURE FOR CLIMATE RESILIENCY

Nature in cities can be multi-tasking, producing an array of environmental and health benefits. Nature-based green infrastructure reduces flood risks by increasing in-place infiltration, decreasing²⁴ the volume of stormwater flowing into local waterways, and enhancing the natural function of floodplains. A study in Beijing calculated that an integrated community-level green infrastructure approach, including increasing green space area by 10%, constructing a storage pond, and converting 50% of impervious area into porous surfaces,²⁵ reduced the volume of runoff by between 85% and 100% and lessened the peak rate of discharge by between 92.8% and 100%.

Nature-based solutions also offer cooling benefits that can help mitigate extreme temperature increases in urban areas having large expanses of pavement and hardscape—a phenomenon known as the “urban heat island” (UHI) effect. Providing opportunities for residents to escape summer extremes will become increasingly important as climate warms.^{26,27} Studies show that a park or tree grove can be a heat oasis in and extreme heat event, and tree shade improves thermal comfort.

Investments in **green infrastructure** generate a broader range of benefits in comparison to traditional grey infrastructure.

