



Natural Resources & Hazard Adaptation

goals & policies

RESOURCE TEAM MEMBERS

- » Tara Armistead
- » Linda Breggin
- » Laurel Creech
- » Shain Dennison
- » Dodd Galbreath
- » Jimmy Granberry
- » Gina Hancock
- » Mekayle Houghton
- » Gwen Griffith
- » Sarah Johnson
- » Paul Kingsbury
- » Audra Ladd
- » Tom McCormick
- » John Norris
- » Lena Coradini
- » Jim Purcell
- » Wyatt Sassman
- » Kim Shinn
- » Jennifer Smith
- » Ryan Stanton
- » Becky Taylor
- » Kimberly Triplett
- » Mike Wilson

STAFF SUPPORT

- » Michael Briggs
- » Andrew Collins
- » Kathryn Withers

NR goal 1

Nashvillians, young and old, will adopt practices in their daily lives that responsibly preserve and enhance the quality of life and natural and physical environment that make Nashville exceptional.

Why is this important? Nashville's population growth and individual behavior could degrade the current quality of life and jeopardize Nashville's natural and built environment. A renewed emphasis on public outreach, education, and personal responsibility will activate new stewardship to conserve energy, eliminate and reduce waste, preserve land, build high performing buildings, and create a culture of sustainability. Public policies, incentives, and private decision making must provide a clear direction to build and grow our city in a more sustainable fashion than we do today. This will enable us to secure the best Nashville for current and future generations.

NR 1.1

Provide education, empowerment, and awareness opportunities and conduct outreach so that people are motivated to adopt new behaviors that reduce environmental impacts.

NR 1.2

Create opportunities and incentives for sustainability to be a part of daily life and influence behavior change.

NR goal 2

Nashville's built environment — both businesses and neighborhoods — conserve and efficiently use land, energy, and water and reduce waste and pollution

Why is this important? Nashville's buildings, infrastructure, and natural environments should reflect our culture of sustainability and encourage sustainable living. As we have grown in population, our tree canopy has given way to development. The recommended average tree canopy for urban areas is 40-50% by the American Forest group. Today, Nashville's urban areas average 30% tree canopy coverage, while downtown has only 5% coverage. Similarly, over 330 miles of streams in Nashville are on Tennessee's Department of Environment and Conservation (TDEC) list of impaired streams. Through water quality protection efforts, however, 90 miles of additional streams have shown recent improvement and been removed from TDEC's impaired list.

Sustainable tools such as Metro Water's Low Impact Development Manual will be critical to reducing pollution in the future. Building practices that utilize Low Impact Development techniques, Energy Star products, LEED certification standards, and future efficiency tools, help to reduce Nashville's environmental impact. Nashville's business community and government sectors should lead the community's efforts to reduce Nashville's environmental impact and taxpayer burdens.



NR 2.1

Expand the use of sustainable building practices in private development. Sustainable development practices include Low Impact Development techniques, use of Energy Star products, various Leadership in Energy and Environmental Design (LEED) standards for buildings, neighborhoods, and the use of new, innovative practices and tools.

NR 2.2

Reduce the energy and water consumption, and improve the development and building practices of Metro-owned facilities to meet green initiatives and to shift to renewable energy sources.

NR goal 3

Nashville's built and natural environment is resilient, sustainable, and smart because it mitigates the impact of extreme weather, hazards, and catastrophes.

Why is this important? A culture of sustainability builds a resilient community that plans for potential hazards. Nashville's weather is changing. Nashville has experienced an increase in extreme weather events. In May 2010, Nashville received over 17 inches of rain, the most in 140 years of recorded weather. The resulting flood cost an estimated \$2 billion in damages to private property and killed 11 people. The hottest day ever in Nashville occurred on June 29, 2012, reaching a temperature of 109 degrees. And in 2008 Nashville experienced a strong tornado, killing 22 people along its path through Middle Tennessee. Resiliency is the comprehensive approach using sustainability and adaptation to successfully meet future climate and

weather related hazards. The natural environment is inherently resilient through its systems including wetlands, forests, and eco-systems among many others. We can borrow from nature and apply sustainable practices to create more resilient communities.

Community leaders can identify and protect critical infrastructure and make communities resilient to reduce the impacts of extreme weather such as flooding, tornadoes, ice storms, cold snaps, and heat waves. Other hazards and catastrophes are also included, such as acts of terrorism, hazardous material spills, bridge failure, and sinkholes. Nashville's infrastructure network, including transportation, public safety, communications, parks and greenways, electric, water, and gas utilities are critical to Nashville's emergency response, economy and neighborhoods. Financial constraints, environmental concerns and a culture of sustainability support diversification and connectivity of Nashville's infrastructure including multi-modal transportation systems, distributed energy resources, and smart telecommunications and data networks.

NR 3.1

Identify threats to current and future infrastructure including extreme weather, hazards, and catastrophes.

NR 3.2

Establish policies and invest in infrastructure that encourage resiliency and mitigate the effects of extreme weather, hazards, and catastrophes.



NR 3.3

Prepare for and quickly respond to extreme weather, hazards, and catastrophes by creating and implementing contingency plans with smart and connected infrastructure.

NR 3.4

Invest in robust and diversified infrastructure including transportation choices which prioritize the maintenance of streets, expansion of mass transit service, and creation of walking and biking opportunities.

NR goal 4

Nashville invests and increases its natural environment for beauty, biodiversity, recreation, food production, and resiliency to weather extremes.

Why is this important? Nashville is a big city with a small town feel. Its natural beauty contributes to Nashville's overall appeal, and includes over 2,500 miles of waterways, three large lakes, and over 38,000 acres of floodplains. Nashvillians want to maintain and enhance those qualities that make the region so livable. Over 75% of residents surveyed felt that clean air and water should be a high priority for our elected officials. The preservation of trees, riparian buffers, and floodplains is essential to clean air and water.

Our natural infrastructure needs continued care, maintenance and expansion. As of 2012, only 10,000 acres of Nashville land is Metro-owned parkland. Nashville's 2011 Open Space Plan has set a goal of acquiring an additional 6,000 acres of parkland by 2035. As a comparison to peer cities, Charlotte NC has over 18,000 acres of

parkland and Austin TX has nearly 29,000 acres.

With over half of Davidson County already developed, we have lost over 9,000 acres of farmland from 2002-2007. Nashville must support and invest in local food production and its community based growers. The development of a locally-based, sustainable food system promotes environmental renewal and fosters a local economy through the purchase of locally grown foods. Natural infrastructure such as riparian buffers, floodplains, and tree canopies are critical to being resilient to extreme weather events including floods and heat waves.

NR 4.1

Support the ecological integrity and public enjoyment of Nashville's wildlife habitats, watersheds, open spaces, floodplains, and tree canopies.

NR 4.2

Provide resources such as land, money, staffing, and innovative policies to maintain a growing parks and natural infrastructure network.

NR 4.3

Develop a secure and sustainable local food system that supports our local farmers and growers.

NR goal 5

All communities in Nashville enjoy equally high levels of environmental protection and equitable access to nature and parks.

Why is this important? Historically, low income and minority communities have been disproportionately impacted by noxious facilities, and physically fractured by interstate highways and sewer treatment facilities in Nashville. The locations of these facilities have impacted the health of communities and torn apart some neighborhoods. Additionally, some communities have not had access to Nashville's rich environmental resources. Nashvillians should strive to listen to a diversity of opinions, encourage honest debate about issues among decision makers, and ultimately balance impacts throughout our entire community. Nashville needs to expand its legacy of inclusion with policies that provide nearby access to environmental resources for those living in areas that are underserved and balance the economic, social, and environmental needs when making land use and transportation decisions.

NR 5.1

Diversify participation in the policy making and implementation of Nashville's local services including infrastructure, land use, transportation, and parks.

NR 5.2

Increase access to recreational opportunities and historic resources that distinguish Nashville, improve quality of life, and support the local economy.