

# **The Public Lands Challenge: Protecting Tennessee's Natural Lands For Future Generations**



One in a series of three papers on environmental issues facing Tennessee produced by the Vanderbilt Center for Environmental Management Studies (VCEMS) with the support of the Vanderbilt Institute for Environmental Risk and Resources Management and the Tennessee Conservation League. The views expressed are those of the authors and not necessarily those of any sponsoring organizations.

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## **Overview**

The State of Tennessee's natural lands are rich in aesthetic beauty and biological diversity. They provide a wide range of public health, recreational, environmental and economic benefits to the State and its citizens. The rapid rate of land development and population growth in the State, however, poses a serious threat to ensuring that sufficient natural lands are protected for future generations. Unlike many states that have taken aggressive steps to protect natural lands in the face of rapid growth and development, Tennessee lacks a comprehensive, coordinated, and well-funded approach to public lands conservation. This paper suggests several approaches that the State should consider for meeting the public lands challenge. These include the development of the following: a strategic vision and plan for public lands that includes a State-wide, comprehensive approach for determining the amount of and location of lands needed to achieve long-term goals and increased integration of the State's conservation and economic development policies; mechanisms for increased coordination among the agencies responsible for public lands conservation; creative funding mechanisms for public lands acquisition; and new approaches for encouraging private land donations and conservation efforts.

## **Problem**

Tennessee is a state of great and diverse natural beauty from the Mississippi River in the West to the Great Smoky Mountains in the East. The State's plentiful mountains, lakes, rivers, wetlands, streams, and abundant wildlife provide recreational opportunities for citizens and tourists and provide habitat to some of the most diverse animal and plant species in the country.<sup>1</sup>

Natural lands provide environmental, economic, and quality of life benefits to Tennessee and its citizens. These benefits are potentially threatened, however, by the rapid rate of land development in the State. Land is being developed at a rate that is seventh highest in the nation. Over 400,000 acres of open space were developed between 1992 and 1997.<sup>2</sup> As the amount of open space decreases across the State and the population grows, it is becoming increasingly important to ensure that natural lands are conserved to allow children and adults to experience the outdoors and to preserve habitat for plants and wildlife.

Despite the tremendous value of open space and natural lands, the State lacks a comprehensive, coordinated vision for the acquisition and protection of its lands for future generations. Land acquisition and management is implemented through a variety of programs which are administered by different agencies. While some agencies informally coordinate their efforts, the State has not provided the vehicle or the resources for integrating the work of the various programs in a manner that: fosters science-based decision-making on a State-wide basis to identify overall land conservation goals; meets wildlife habitat management requirements; and supports acquisition initiatives over the long term. Other rapidly developing Southern states have taken steps to meet the land conservation challenge by setting state-wide goals for acquiring and preserving land for future generations. For example, the goal of the Georgia Greenspace Program is to permanently preserve at least 20 percent of Georgia's land and water for informal recreation and to protect natural resources.<sup>3</sup> Similarly, the North Carolina General Assembly recently passed a law which provides that it is the goal of the State to protect an additional million acres of farmland, open space, and other conservation land by December 31, 2009.<sup>4</sup>



In addition to lacking a comprehensive approach to land conservation, Tennessee lags behind many other states in the amount of funding it dedicates to land acquisition, and the funding that it does dedicate may be in jeopardy in the face of the State's fiscal problems. States across the country are realizing the critical importance of acquiring and conserving public lands for future generations. In the 2000 and 2001 elections, voters in other states approved ballot measures that provided \$7.5 billion and \$1.7 billion respectively for land conservation.<sup>5</sup> Tennessee dedicates approximately \$10 million per year to land acquisition through a percentage of the real estate transfer tax.<sup>6</sup> In contrast, states both larger and smaller than Tennessee, such as Florida and New Jersey, dedicate \$300 million and \$98 million per year respectively for land acquisition and conservation.<sup>7</sup> Georgia appropriated \$30 million for its Georgia Greenspace Program alone in 2001.<sup>8</sup>

Without a strategic vision and plan, Tennessee is likely to continue to underinvest in the conservation of public lands. Unlike more conspicuous environmental problems that galvanize citizens, such as polluted rivers or smog, preserving Tennessee's natural lands is a less immediately obvious concern. Over fifteen years ago, the Governor's Commission on Tennesseans' Outdoors concluded that: "[an] aggressive program of land acquisition and protection will be necessary to keep pace with expected population increases."<sup>9</sup> To date, that goal has not been fully realized.

### **Why Tennessee Must Meet the Challenge**

Conserving public lands is essential to the State and future generations of its citizens for many reasons, including public health, environmental quality, and economic strength.

#### *Public Health*

It is well documented that spending time in nature has a positive effect on people's sense of well-being. Outdoor recreation in particular is important to public health. As recognized by the Governor's 1986 Commission on Tennesseans' Outdoors: "Refreshment of body and spirit through outdoor recreation is a basic human necessity."<sup>10</sup> Furthermore, preserved land can help mitigate air and water pollutants, which are associated with myriad negative health effects. For example, preserved land can filter water pollution by serving as riparian buffers.<sup>11</sup>

#### *Environment*

Tennessee's public lands provide habitat for a wide range of plant, animal, and aquatic life. Tennessee is considered the most biologically diverse inland state in the country.<sup>12</sup> This rich biodiversity provides natural resources for food, fuel, medicines, recreation, climate and flood control, and water filtration.<sup>13</sup> The State's rapid pace of development threatens to destroy plant and animal habitat, which could ultimately result in the destruction of some species. Furthermore, much of the State's biodiversity is aquatic, and the primary threats to it are land development and attendant nonpoint source water pollution, including polluted runoff from paved streets. Conservation of public lands not only protects habitat from development, it also helps preserve the quality of environment so that wildlife can thrive.



## *Economy*

Failure to acquire and manage public lands in the face of continuing growth and development may adversely impact State and local economies. For example, the tourism industry could be harmed, which is a \$9 billion a year industry in Tennessee and the second largest in the State.<sup>14</sup> Over 30 million people annually visit Tennessee's State parks.<sup>15</sup> State parks alone generated approximately \$229 million in sales for lodging, food, and retail items, and produced 4,500 jobs in the regions surrounding the parks in 2000-2001. Secondary multiplier effects added approximately \$146 million in sales for lodging, food, and retail items to this direct income and created an additional 1,857 jobs.<sup>16</sup> In addition, fishing, hunting, and boating licenses generated approximately \$5.7 million for the State in 2001, which is only a fraction of the revenue generated from related expenditures such as food and lodging.<sup>17</sup> Preserving the State's biodiversity and threatened species by conserving land also helps prevent triggering certain legal requirements, such as those under the Endangered Species Act, which can ultimately restrict economic development and business activities.<sup>18</sup> Furthermore, while the new homes, businesses, and roads that have been built in recent years represent important contributions to the State's economy, increased sprawl and the attendant loss of natural lands, if left unchecked, may make it increasingly difficult to continue to attract and maintain businesses and their work forces.

### **Possible Approaches to Meeting the Challenge**

Tennessee could take many approaches to address the public lands challenge. The following are some possible directions that the State should consider. Additional research could help identify other alternatives and determine the best choice or combination of choices:

#### *Development of a State Vision and Plan*

Tennessee could initiate an inter-agency effort, led by the governor's office, to develop a long-range and integrated approach to conservation of public lands. The goals could include:

- Identifying objectives for the State's public lands conservation efforts, such as providing recreational opportunities, preserving special lands such as gorges and views, maintaining biodiversity, and preserving environmental quality;
- Working with the State's current land conservation programs to identify and possibly implement a State-wide, comprehensive approach for determining the amount and location of the land needed to achieve these goals over the long term.
- Developing and implementing a plan for achieving the State's public lands acquisition goals, which could include: consideration of possible funding mechanisms, such as private donations and bond issues; use of additional science-based tools, such as geographic information systems; and assessment of whether additional legal authority is required to accomplish acquisition goals, such as broader authorization for the Tennessee Wildlife Resources Agency to acquire uplands, in addition to wetlands.
- Examining the viability and merits of integrating the State's approach to conserving public lands with its growth and economic development policies, as many states are doing across the country. Such integration can be achieved in a wide variety of ways, including the development of so-



called “green infrastructure plans,” which plan for and establish networks of preserved open space and waterways that can help guide growth, prevent haphazard conservation efforts, create wildlife corridors, and protect water quality.<sup>19</sup> Any such efforts should include the State’s Office of Economic Development which could, for example, provide support for State and local efforts to attract sustainable businesses.

#### *Establishment of a Mechanism for Inter-Agency Coordination*

Several Tennessee agencies acquire and manage public lands: The Tennessee Department of Environment and Conservation, which acquires and manages land for the state parks and natural areas; the Tennessee Wildlife Resources Agency, which oversees acquisition and management of wildlife management areas; and the Tennessee Department of Agriculture, Division of Forestry, which acquires and manages state forests. The various programs that these agencies administer have different goals, funding, and staff. These programs coordinate on particular projects, but may benefit from the establishment of a vehicle for more systematic and consistent coordination in making acquisition and management decisions and setting long-range goals. An inter-agency task force or similar vehicle, coordinated through the governor’s office, could facilitate this linkage and marshal the resources of all the responsible agencies. The task force could include other State agencies that work on related issues and projects, such as the State Department of Transportation, which both acquires and develops public lands. The task force could also coordinate with local governments and regional federal agencies such as the Environmental Protection Agency and the United States Fish and Wildlife Service. In addition, an advisory group to the interagency group could provide technical expertise and policy direction, and include representatives from non-governmental organizations and businesses. A possible model for such an effort could be the Interagency Wetlands Committee, which oversees the development of a comprehensive wetlands plan for the State.<sup>20</sup>

#### *Provision of Adequate Funding*

States across the country, including the Southeast, have developed a wide range of creative approaches to funding land acquisition and conservation. Often these approaches rely on dedicated funding streams for acquiring and managing public lands because reliable and continuous funding cannot be guaranteed through state legislative appropriations processes from year to year. For example, many states and their localities have relied on bond issues to raise funds for land acquisition, including DeKalb County, Georgia, which passed a \$125 million bond measure in 2001 to acquire land for parks and natural areas, preserve green space, and improve parks.<sup>21</sup> Similarly, Orange County, North Carolina passed a \$20 million bond measure for parks, open space, and recreational facilities.<sup>22</sup>

A governor-appointed, multi-stakeholder task force, or similar mechanism, could be useful for developing and possibly implementing innovative funding approaches in Tennessee. Bond issues may be particularly worth exploring because they provide funding that can enable a state to acquire critical lands as they become available, rather than requiring the State to wait until annual funding is available or has accumulated. During such delays, critical property can be taken off the market or increase substantially in price. For instance, more than 300,000 acres of in dustry-owned forestland has been put on the market in the last two years in Tennessee, but the State has had inadequate resources to capture critical parcels before they were subdivided.<sup>23</sup>



Tennessee law specifically authorizes the use of monies deposited in the State lands acquisition fund to be used as a revenue stream to pay the principal of and interest on revenue bonds.<sup>24</sup> States and localities across the country have used similar approaches to fund bond issues. In Arnold, Missouri, for example, voters passed a six-year sales tax, and by bonding against the income will generate an estimated \$4 million for local park acquisition, storm water control, and recreational facilities.<sup>25</sup> The Florida Forever initiative, a ten-year, \$3 billion program passed by the State legislature, is funded by bonds backed by the State's tax on the transfer of real estate.<sup>26</sup>

The task force or similar group could also examine whether there are current funds that could be redirected to land conservation. For example, the State could consider whether gas tax revenues generated from water-based fuel docks used by motorboats in Tennessee waterways could be redirected for land acquisition that could help protect rivers and lakes. In addition, opportunities for leveraging private donations and dollars in a more strategic and focused manner could be explored. Finally, the task force or group could determine whether the State is leveraging all available federal dollars and not missing any important opportunities to fund land acquisition by using existing funds to match federal dollars.

In addition to leveraging private and federal funding and redirecting existing sources of revenue, the State could consider the structure of self-funding mechanisms such as user and facility fees in the State parks, and opportunities to outsource certain hospitality functions.

#### *Encouragement of Private Donations*

States across the country are adopting programs that encourage private landowners to conserve their lands. These programs take advantage of growing public recognition of the importance of conserving land for future generations and supplement State-directed conservation efforts. In Tennessee alone there are 26 land trusts dedicated to conserving private lands.<sup>27</sup> Tennessee currently provides incentives to certain owners of open space, agricultural, and forest land through its "greenbelt law," which provides for property to be taxed based on its current use value rather than on the value of the land if potentially converted to another use.<sup>28</sup> Given the success of this tax incentive and the success of other types of incentive programs across the country, Tennessee could consider the adoption of new programs that encourage private land conservation.

Two particularly successful approaches to private land conservation are voluntary conservation easements and purchase of development rights programs. A conservation easement is a legal agreement between a landowner and a private land trust or government agency that limits certain uses of the land in order to protect its conservation value. The landowner continues to own and use the land while a private land trust or government agency holds, monitors, and enforces the terms of the conservation easement. States across the country are providing a range of incentives for landowners to donate conservation easements. Virginia established a State-wide public land trust, The Virginia Outdoors Foundation, which holds conservation easements and has the ability to monitor and enforce their terms. The Foundation often works in partnership with local conservation groups and private land trusts.<sup>29</sup> Tennessee could explore whether there are other steps it could take to encourage voluntary easements through additional financial incentives or through education and outreach about current State and federal incentives.



Purchase of development rights programs focus on the voluntary sale and legal retirement of development rights to land through a conservation easement. The farmer or landowner sells the right to develop the land to a private conservation organization or government agency while retaining title to the land and other property rights, such as the right to farm. In exchange, the landowner is compensated for the difference between the value of the land on the open market and the value as restricted for farmland or open space. For example, Michigan has a purchase of development rights program that is funded through conversion tax revenues on land removed from agricultural production.<sup>30</sup> In addition, in evaluating whether a purchase of development rights program makes sense for Tennessee and its localities, the State could consider participating in related federal programs. For example, the Farmland Protection Program provides funds to state governments to help purchase development rights to keep productive farmland in agricultural use.<sup>31</sup> Kentucky participates in the federal program and has set up its own implementing program, the Purchase of Agricultural Conservation Easements (PACE) program.<sup>32</sup>

In addition to conservation easements, purchase of development rights programs, and similar tools, donations of private lands can also augment a state's public lands programs. Tennessee's current land conservation programs have succeeded on an ad hoc basis over the years in obtaining corporate donations of lands whenever possible. For example, the Bridgestone/Firestone Corporation donated 10,000 acres of land near Sparta, Tennessee called "Scott's Gulf."<sup>33</sup> Tennessee could consider whether a more strategic, State-wide approach to encouraging such donations would be valuable in forwarding its public lands conservation efforts.

This paper is part of a series of white papers on environmental issues in Tennessee. The three papers discuss public lands, nonpoint source water pollution, and the contribution of motor vehicle miles traveled to ozone pollution. These three issues are illustrative of the environmental challenges that Tennessee faces in the coming decade. The focus on these topics, however, is not intended to suggest that these are the only or the most important environmental issues that the State must address. The papers highlight some possible approaches that could be examined further, based on information gathered during a series of over two dozen interviews with representatives from State and local government, businesses, and nonprofit organizations. While potential solutions are offered, they are by no means exhaustive of potential solutions that might be considered and they should not be taken as specific recommendations without further analysis on the costs and benefits of each alternative. These papers were produced by the Vanderbilt Center for Environmental Management Studies (VCEMS) with the support of the Vanderbilt Institute for Environmental Risk and Resources Management and the Tennessee Conservation League. The views expressed are those of the authors and not necessarily those of any sponsoring organizations. Contributing authors and researchers include: Linda Breggin, Mark Cohen, Meghan Lockman, Ann Olsen, and Kristen Shepherd. Electronic versions of the papers in this series, as well as additional information about the authors, are available on the VCEMS web site at [www.vanderbilt.edu/vcems](http://www.vanderbilt.edu/vcems).

Endnotes:

<sup>1</sup> The Nature Conservancy, "10 Things You Should Know About Tennessee," <http://nature.org/wherewework/northamerica/states/tennessee/about/art227.html>; [www.tenngreen.org/news.htm](http://www.tenngreen.org/news.htm); Telephone interview with Scott Davis, Director, Tennessee Chapter, The Nature Conservancy, March 27, 2002.



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<sup>2</sup> United States Department of Agriculture, “Summary Report 1997 National Resources Inventory” at 16 (Revised December 2000).

<sup>3</sup> Trust for Public Land, “Funding Profile: Georgia,”  
[http://www.tpl.org/tier3\\_cdl.cfm?content\\_item\\_id=876&folder\\_id=706](http://www.tpl.org/tier3_cdl.cfm?content_item_id=876&folder_id=706).

<sup>4</sup> Trust for Public Land, “Funding Profile: North Carolina,”  
[http://www.tpl.org/tier3\\_cdl.cfm?content\\_item\\_id=879&folder\\_id=706](http://www.tpl.org/tier3_cdl.cfm?content_item_id=879&folder_id=706).

<sup>5</sup> Trust for Public Land and Land Trust Alliance, “LandVote 2001: Americans Invest in Parks and Open Space” at 1 (2001).

<sup>6</sup> Interview with Gary Myers, Executive Director, Tennessee Wildlife Resources Agency (TWRA), March 12, 2002; Interview with Reginald Reeves, Director, Division of Natural Heritage, Tennessee Department of Environment and Conservation (TDEC), March 15, 2002; TWRA, “Wetland Fund Balance Projection” (October 2001); TDEC, “Average Monthly Revenue Over Last 12 Months: State Land Acquisition Fund” (August 2000).

<sup>7</sup> Florida: [www.dep.state.fl.us/lands/acquisition/index/htm](http://www.dep.state.fl.us/lands/acquisition/index/htm); New Jersey:  
[www.state.nj.us/dep/commissioner/strateplan/openspace.htm](http://www.state.nj.us/dep/commissioner/strateplan/openspace.htm).

<sup>8</sup> Trust for Public Land, “Funding Profile: Georgia,”  
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<sup>9</sup> Governor’s Commission on Tennesseans Outdoors, “Tennesseans Outdoors: A Quality of Life for the Future” at iv (November 1986).

<sup>10</sup> Governor’s Commission on Tennesseans Outdoors, “Tennesseans Outdoors: A Quality of Life for the Future” at iv (November 1986).

<sup>11</sup> United States Department of Agriculture, “Buffers: common-sense conservation” (1997).

<sup>12</sup> Telephone interview with Scott Davis, The Nature Conservancy, 3/27/02;  
<http://nature.org/wherewework/northamerica/states.tennessee/about/art227.html>;  
[www.tenngreen.org/news.htm](http://www.tenngreen.org/news.htm);

<sup>13</sup> *See, e.g.* Environmental Law Institute, “Indiana’s Biological Diversity: Strategies and Tools for Conservation,” at 5-6 (1995)([www.eli.org](http://www.eli.org)).

<sup>14</sup> Travel Industry Association of America, “The Economic Impact of Travel on Tennessee Counties, 1999” (A Study for the Tennessee Department of Tourist Development) at 8 (June 2001).

<sup>15</sup> Tennessee Department of Environment and Conservation, Office of Strategic Planning, “Master Plan for Tennessee State Parks 1999-2009” at 4.



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- <sup>16</sup> Tennessee Department of Environment and Conservation, Divisions of State Parks, “Economic Impacts of Tennessee State Park Visitors” at 1 (October 2001).
- <sup>17</sup> Telephone interview with Susie Spriggs, Tennessee Wildlife Resources Agency, Revenue Office, March 23, 2002.
- <sup>18</sup> Endangered Species Act, 16 U.S.C. 1531-1544.
- <sup>19</sup> Smart Growth Network and the International City/County Management Association, “Getting to Smart Growth: 100 Policies for Implementation” at 46-47 (2002). Available online at [www.smartgrowth.org/pdf/gettosg.pdf](http://www.smartgrowth.org/pdf/gettosg.pdf).
- <sup>20</sup> Tennessee Wetlands: [www.state.tn.us/environment/epo/wetlands](http://www.state.tn.us/environment/epo/wetlands).
- <sup>21</sup> Trust for Public Land and Land Trust Alliance, “LandVote 2001: Americans Invest in Parks and Open Space” at 10 (2001).
- <sup>22</sup> Trust for Public Land and Land Trust Alliance, “LandVote 2001: Americans Invest in Parks and Open Space” at 10 (2001).
- <sup>23</sup> Meyers, Gary, “Tennessee’s Forestlands: A Changing Landscape,” Tennessee Wildlife Magazine (March/April 2001).
- <sup>24</sup> Tennessee Code Section 67-4-409 (k).
- <sup>25</sup> Tennessee Code Section 67-4-409 (k).
- <sup>26</sup> Trust for Public Land, [www.tpl.org](http://www.tpl.org) (March 26, 2002).
- <sup>27</sup> Southern Environmental Law Center, “Where Are We Growing? Land Use and Transportation in Middle Tennessee” at 23 (2001)(citing Land Trust Alliance)([www.selva.org/res\\_publications.shtml](http://www.selva.org/res_publications.shtml)).
- <sup>28</sup> Tennessee Agricultural, Forest and Open Space Land Act of 1976, Section 67-5-1001, *et seq.*
- <sup>29</sup> Southern Environmental Law Center and Environmental Law Institute, “Smart Growth in the Southeast: New Approaches to Guiding Development” at 10 (1999)([www.eli.org](http://www.eli.org)).
- <sup>30</sup> Telephone interview with Meghan McDougal, Michigan Department of Agriculture, April 1, 2002.
- <sup>31</sup> United States Department of Agriculture, “The U.S. Department of Agriculture’s Natural Resources Programs: Financial, Technical, and Educational Assistance for Landowners” (May 1998).
- <sup>32</sup> The PACE Program: [www.uky.edu/Ag/AgEcon/ra9805ci.html](http://www.uky.edu/Ag/AgEcon/ra9805ci.html).
- <sup>33</sup> See Bridgestone/Firestone Centennial Wilderness: <http://www.state.tn.us/environment/epo/bridgfire/apr1300.htm>.

