

Priority Areas



Priority Areas

Considering the reality of most natural resource organizations' limited budgets and personnel time, it is imperative for this strategic plan to focus attention on the most critical issues. To achieve this focus it was necessary to identify important forest services and benefits to preserve, and to identify the greatest threats or risks to sustaining those benefits. Through the Forest Resource Assessment process, the forest resource benefits, along with the most serious threats and risks to the forest resource, were identified with input from many natural resource professionals working for several different organizations in addition to input from the public. The Tennessee Department of Agriculture Division of Forestry (TDF) then used spatial analysis to determine locations where threats and risks to the forest resource were most prevalent. The results of this analysis are displayed on the maps on the following pages. These areas are the priority areas of the state, and should provide guidance for each agency, as well as external partners, to know where to look first to provide integrated program delivery.

Forest Stewardship and Forest Legacy

The Forest Stewardship and Forest Legacy priority area maps utilize geographic information system (GIS) data to identify forest resources at risk from threats that have the greatest potential to negatively impact benefits derived from forested landscapes. The 12-digit hydrologic unit level watershed (approximately 25,000 – 50,000 acres) is the minimum size landscape targeted as a priority area unit. This unit size is easily identified and visualized, is small enough to be addressed using locally-based

resource professionals, and is easily monitored for action impacts.

Wildfire

The Area of Wildfire Concern map developed for the Southern Wildfire Risk Assessment is used to define priority areas for wildland fire suppression and prevention activities. This map incorporates the most relevant data (fuels models, terrain and urban areas) in determining areas of concern.

Urban Forestry

Two sets of priorities were established for urban forestry activities in Tennessee. One set focuses on issues and opportunities identified at the national level. It targets nationally developed strategies and programs. The other set focuses on issues identified to be of state and local significance. Community and site specific data will be developed over time for both sets of priority areas. Analysis of these unique data sets will lead to additional strategies and activities to help meet the needs of each urban community. More specific descriptions for these priorities accompany each map.

It is anticipated that the forest community's stakeholders will give program and technical assistance special emphasis to these watersheds and areas to the extent their mission and budget allows. This approach encourages partnerships and leveraging of resources to bring about measurable impacts on the resource. It also fosters efficiencies by creating synergies and by recognizing and discouraging redundancy.

Forest Stewardship Priority Areas Map

Tennessee’s forests are facing forest health issues that, if not addressed, could significantly change the benefits derived from our State’s forest (Forest Health chapter; pg 65). Protecting, maintaining, and enhancing a public use water supply is a basic need for all Tennessee citizens (Water Quality, wetlands, and Riparian Areas chapter; pg 34). As a result, forest health threats and public water supply benefits have been emphasized in the development of the Forest Stewardship priority areas map.

The Forest Stewardship Priority Areas Map displays all watersheds containing combinations of forest types subject to insect or disease forest health risks, in need of riparian forest buffers, or in need of protection of a public water supply watershed. These watersheds will be the focus of outreach to advance stewardship activities geared toward mitigating the threats or issues identified. The highest priority displayed on this map is the public water supply watersheds, which are shown in red. These watersheds are greater than 50 percent forested, face significant threat to development and provide most of the public water supply for at least one water intake. Therefore, they depend upon a healthy forest condition for quality water yield. For this reason they will be the focus of active outreach for stewardship planning and application of measures to sustain their yield of quality water.

The subsequent maps display the location of other priorities by individual threat or risk. These maps include:

1. Oak Decline Risk Map
2. Southern Pine Beetle Risk Map
3. Gypsy Moth Risk Map
4. Hemlock Woolly Adelgid Risk Map
5. Emerald Ash Borer Risk Map
6. Riparian Forest Buffer Establishment Map

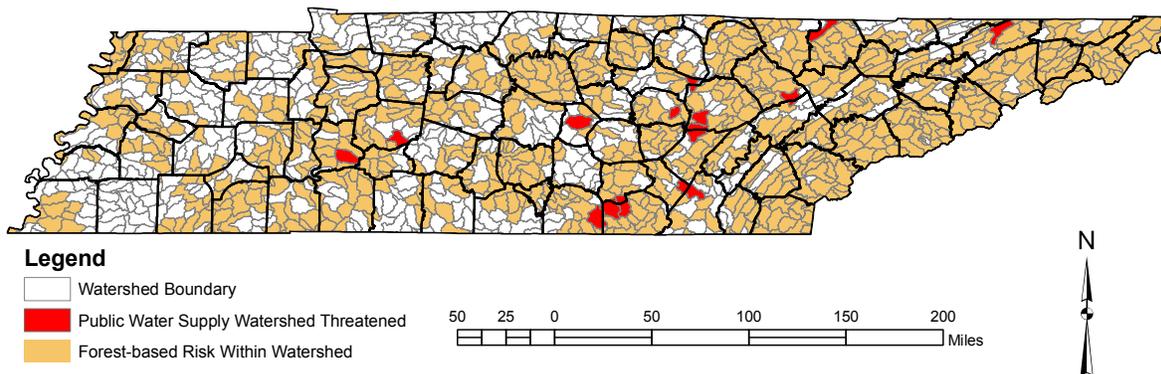
Multi-State Priority Areas

Many of the opportunities and threats to the forest resources in Tennessee exist in neighboring states (Table 21). These shared issues offer potential for collaborative efforts to leverage funding and other resources. This is an important consideration in light of tight agency budgets that currently exist and are likely to extend into the foreseeable future. Opportunities for implementation of specific joint projects will be evaluated on an annual basis based on available funding and willing partners.

Table 21. Tennessee’s shared priority concerns with neighboring states

Priority concern	STATE					
	AL	GA	KY	NC	MS	VA
Emerald Ash Borer			●	●		●
Gypsy Moth	●		●			●
Hemlock Woolly Adelgid	●	●	●	●		●
Southern Pine Beetle	●	●	●	●	●	●
Oak Decline	●			●		●

Figure 38. Forest Stewardship priority areas composite map



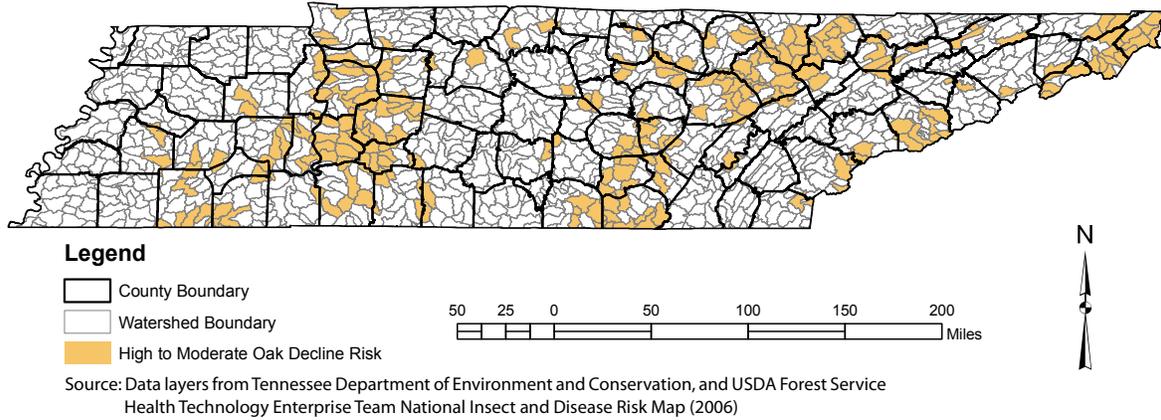
Source: Data layers from Tennessee Department of Environment and Conservation, and USDA Forest Service Health Technology Enterprise Team National Insect and Disease Risk Map (2006)



Oak Decline Risk Map

Watersheds with high risk of oak decline occurrence.

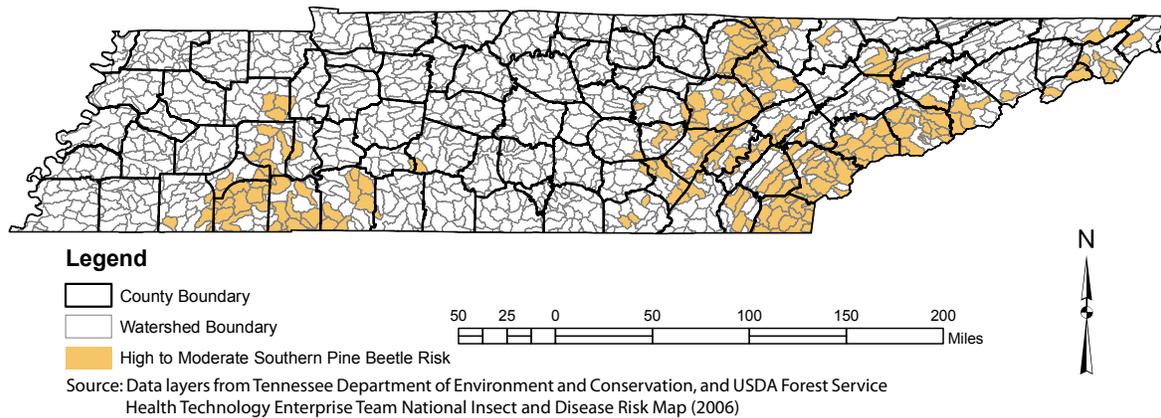
Figure 39. Oak decline risk map



Southern Pine Beetle Risk Map

Watersheds with high risk of southern pine beetle attack.

Figure 40. Southern pine beetle risk map

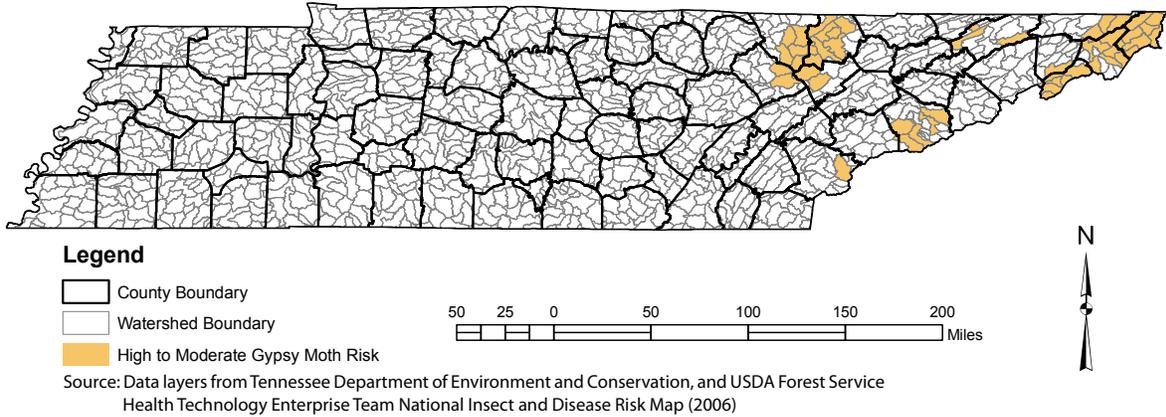


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Gypsy Moth Risk Map

Watersheds with high risk of gypsy moth attack.

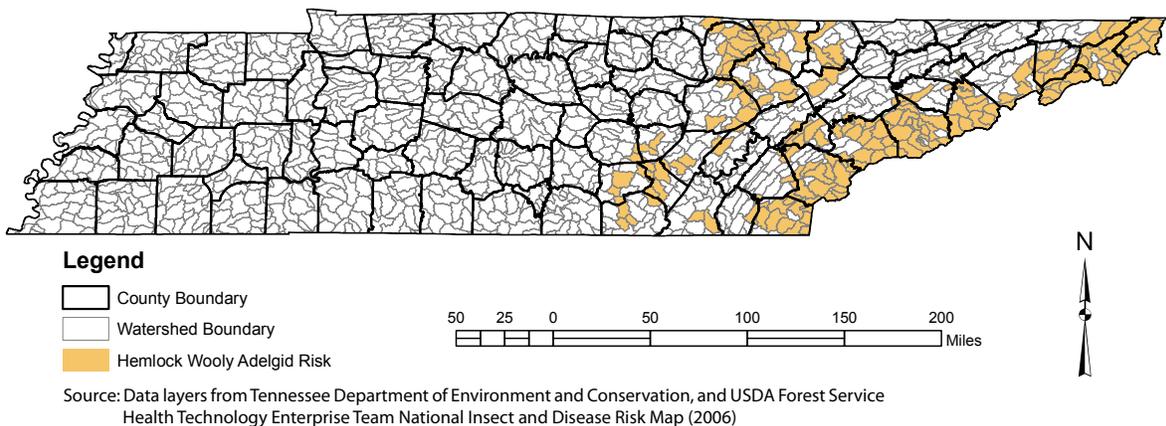
Figure 41. Gypsy moth risk map



Hemlock Woolly Adelgid Risk Map

Watersheds with high risk of hemlock woolly adelgid attack.

Figure 42. Hemlock woolly adelgid risk map



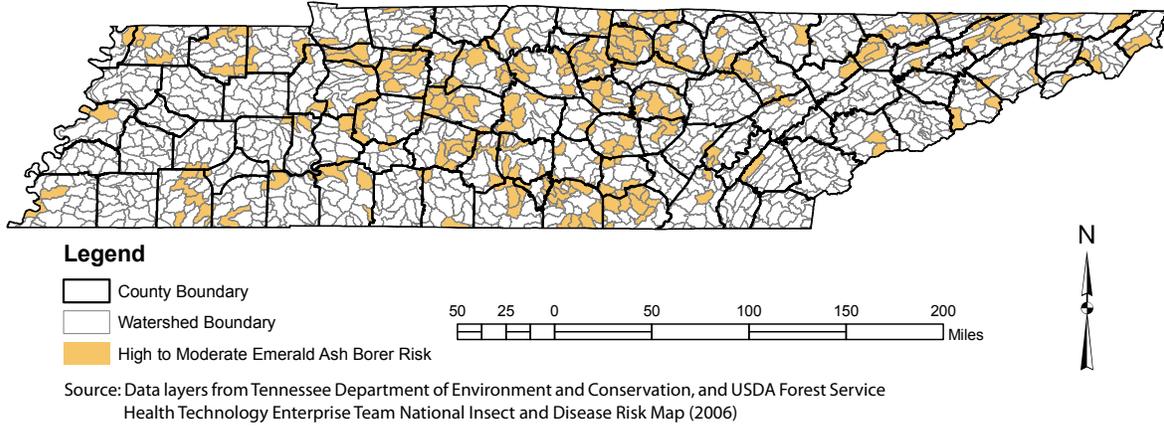
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Emerald Ash Borer Risk Map

Watersheds with high risk of emerald ash borer attack.

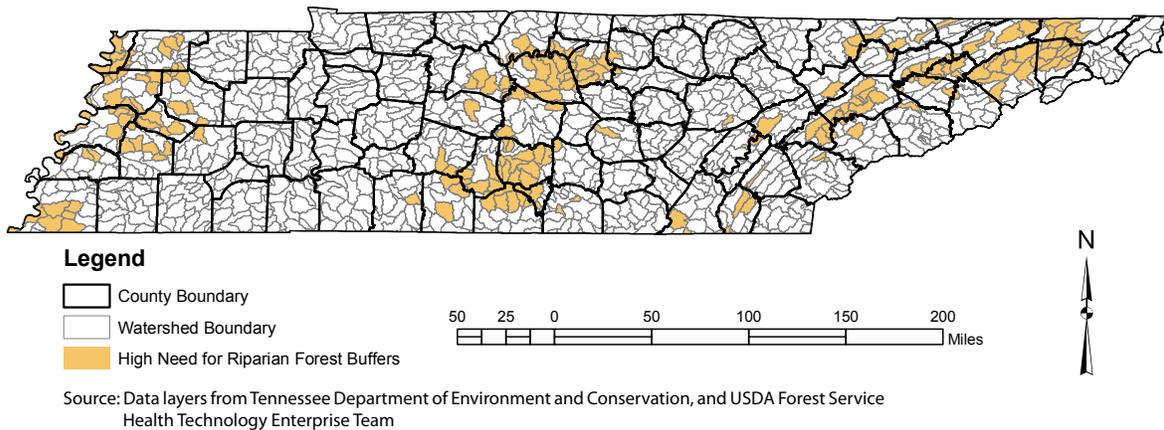
Figure 43. Emerald ash borer risk map



Riparian Forest Buffer Establishment Map

Watershed where 2/3 of the streams lack riparian forest buffers.

Figure 44. Riparian forest buffer establishment map



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Wildland Fire Priority Areas Map

The Southern Wildfire Risk Assessment (SWRA) is a planning tool that may be applied to a variety of needs. The SWRA was developed by the southern states for fire planning purposes in the southern region as a whole, in each state individually, and at the local government or community level. SWRA allows various criteria which affect wildfire behavior, suppression response, and mitigation efforts to be modeled and the results analyzed. The SWRA is an efficient and effective product for identifying communities at risk from wildfire, and for developing

a proper approach to mitigating risks. The Area of Wildfire Concern map from the SWRA shown below defines priority areas for wildland fire suppression and prevention activities. This map incorporates the most relevant data (fuels models, terrain and urban areas) in determining areas of concern. It does not necessarily represent past wildfire occurrence. A more localized version of this model is represented in the Sevier County map below. Individual county maps are available through TDF.

Figure 45. Wildland fire priority areas map

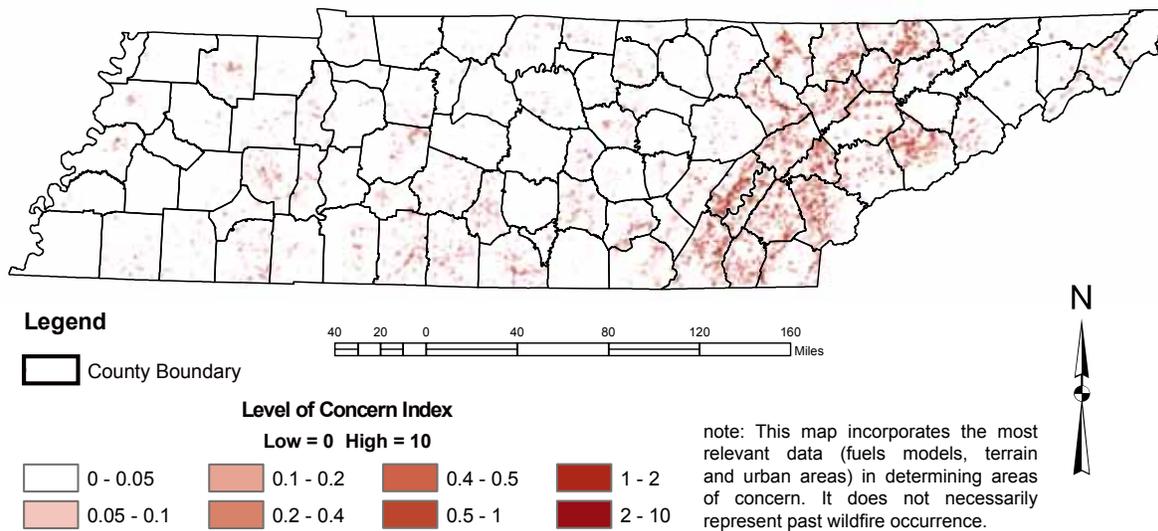
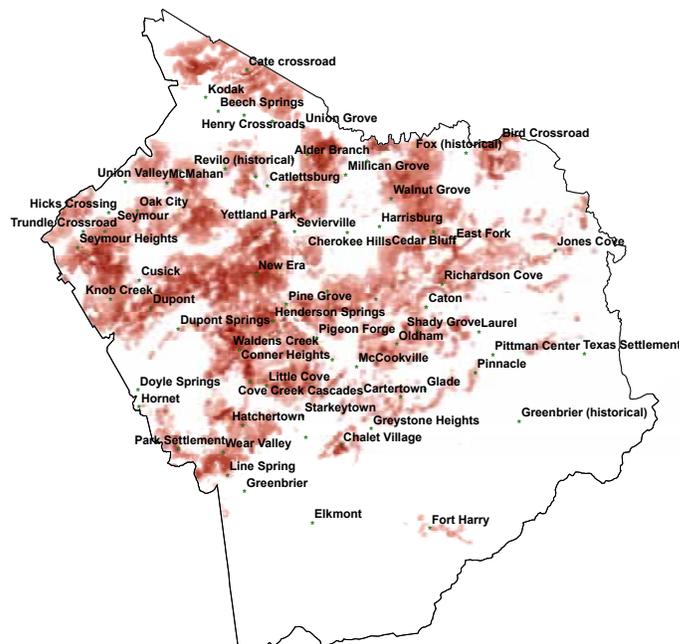


Figure 46. Sevier County wildland fire priority map



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Urban Forestry Priority Areas Maps

Two priority areas maps were developed for urban forestry activities in Tennessee. The first map (Figure 47) shows the watersheds containing the 15 largest areas of incorporation. These watershed will receive emphasis with activities contributing to the nationally identified strategic focus areas of:

1. mitigate and adapt to climate change,
2. protect and improve water and air quality,
3. conserve energy,
4. reduce the impacts of land use change, fragmentation and urbanization on forest landscapes,
5. improve community health and well being, and
6. build urban forest resilience and mitigate the impacts of invasive pests and catastrophic events.

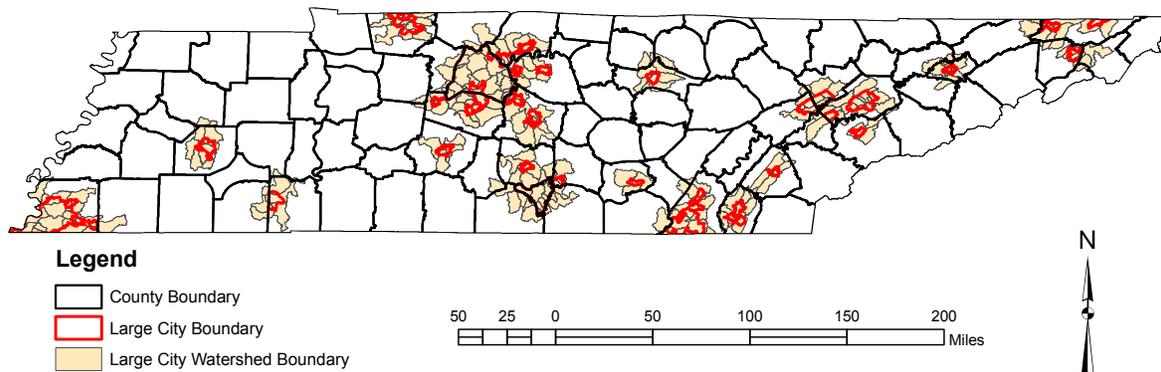
Urban forest attribute data contained in Nowak and Greenfield (2009) will be applied to these watersheds to identify specific activities for future implementation.

The second map (Figure 48) depicts watersheds targeted for implementation of the state-specific strategies identified in this Assessment and Strategy. Over time these watersheds will be assessed for their specific urban forestry assistance needs. Appropriate strategies will then be implemented to meet those needs. Emphasis will be given to strengthening relationships with Planning and Development Commissions and with Tree Boards. Where Tree Boards are lacking, emphasis will be given to their creation.

Reference:

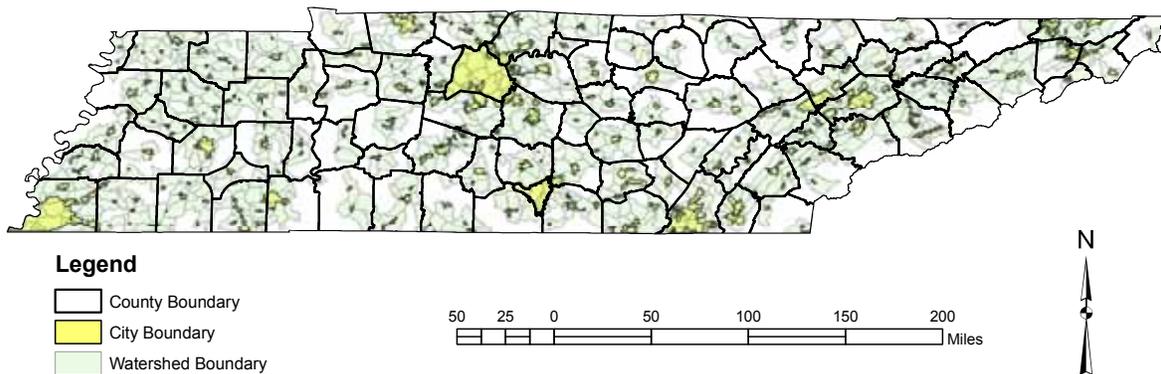
Nowak, D.J. & Greenfield, E.J. 2009. Urban and Community Forests of the South Central East Region. General Technical Report NRS-58. US Department of Agriculture Forest Service, Northern Research Station. 46 p.

Figure 47. Urban forestry national strategic focus priority map



Source: Data layers from Tennessee Department of Environment and Conservation (Watershed Boundaries), and Tennessee Spatial Data Server (City Boundaries)

Figure 48. Urban forestry state strategy priority map



Source: Data layers from Tennessee Department of Environment and Conservation (Watershed Boundaries), and Tennessee Spatial Data Server (City Boundaries)



Tennessee's Forest Legacy Program

Implementation of the Forest Legacy Program (FLP) fills an important gap and provides a safety net to protect environmentally important resources in Tennessee. The Program supplements existing programs administered by state and local agencies, land trusts and conservancies, forest industries, and conservation organizations whose efforts are focused on conserving unprotected resources on private lands. The FLP process also provides improved coordination of effort by which all interested organizations and individuals can participate as partners to achieve protection of significant forest resources.

The FLP offers landowners an opportunity to voluntarily protect important resources by donating or selling, either fee simple or through conservation easements, forested tracts that identify key resource values and establish management goals and land use restrictions. In this way the Program can help maintain the forestland base, protect special forest resources, and provide opportunities for traditional forest uses for future generations. Although landowners that participate in FLP may choose to donate or sell fee title to their lands, conservation easements are the preferred method of protecting important forestlands. FLP acquisitions will be from willing landowners only.

Publicity

As the lead FLP agency in Tennessee, the Department of Agriculture Division of Forestry (TDF) will initiate timely outreach efforts to generate appropriate FLP publicity among applicable partnering state agencies, federal agencies, conservation organizations and corporate and individual private landowners. Newsletters, press releases, public meetings, articles, and field staff will also be utilized to provide continuing publicity about FLP.

Landowner participation - application, selection, and development of easements

Eligible landowners that may be interested in the FLP may submit applications to the State Forester at any time. Application will be made on forms finalized by the FLP Committee.

Landowners should decide whether they prefer to donate property to the Program or apply to have property purchased through the Program. Donated property may be held either by government or non-government entities where the respective organization agrees to accept the donation to manage the lands for Forest Legacy purposes. Organizations eligible by law to hold property donated to the Program include the USDA Forest Service, State or local agencies, and non-profit trusts and conservancies. The State must hold easements or lands purchased with federal funds.



The State Forester, in consultation with the State Forest Stewardship Coordinating Committee (SFSCC), will appoint a FLP subcommittee that will review FLP applications at least annually and make recommendations regarding the value of tracts to Tennessee's FLP. The selection process will produce a list of landowner applications that will be prioritized for inclusion and potential funding. The prioritized list will, in turn, be presented to the State Forester for final approval.

The State Forester approved list will then be submitted to the USDA Forest Service's Regional Office in Atlanta. The Forest Service will make the final determination as to which conservation easements or lands will be acquired with federal funds, or, in the case of donations, will be approved for inclusion in the Program under cost-share agreements. All acquisitions will be made subject to availability of federal funds. Tracts successfully funded will be appraised using Federal appraisal standards, and landowners will be informed of their fair market value.

Following completion of the prioritization and approval process, properties will be purchased or conveyed as charitable donations. State agencies such as TDF, Tennessee Department of Environment and Conservation, or Tennessee Wildlife Resources Agency may hold purchased, fee simple properties.

In cases where conservation easements are involved, specific terms of easements will be negotiated between individual landowners and easement holders. Terms will be site specific and will provide for the permanent protection of forest resources targeted by the landowner for protection. All easement acquisitions must follow established federal appraisal standards and State procedures and standards for negotiation, appraisal, title review, survey, and other requirements. TDF will hold title to all conservation easements acquired with federal funding through the FLP.

Parcel eligibility criteria

The parcel eligibility criteria below reflect both USDA Forest Service Program Implementation Guidelines and the State Forest Stewardship Coordinating Committee's objectives for FLP. To be eligible for inclusion in Tennessee's FLP, private forestland tracts must:

- Be located at least partially within one of

Tennessee's Forest Legacy Areas or adjacent to a previously purchased Forest Legacy tract.

- Be owned by landowners that are willing and interested in donating or selling conservation easements, reserved interest deeds, or fee title through the FLP.
- Possess at least 10 percent stocking with hardwood or softwood tree species on 80% or more of tract acres or be capable of being so forested.
- Possess at least one environmental value of special concern to the public and the State, such as
 - ◊ lands which directly affect water quality and other watershed values
 - ◊ important fish and wildlife habitat;
 - ◊ rare animals, plants or plant communities
 - ◊ biological diversity
 - ◊ riparian habitats
 - ◊ scenic beauty
 - ◊ forest-based recreation opportunities, or
 - ◊ forest products production capability
- Provide for continuity of one or more traditional forest uses.
- Possess environmental values that can be protected and managed effectively through conservation easements at reasonable cost.

When judging whether a tract has environmental values that can be protected and managed efficiently through a conservation easement, TDF, the SFSCC, and the FLP Committee should consider:

- The nature of environmental values proposed for protection and whether they can be monitored effectively and economically.
- The nature of rights maintained by conservation easement landowners and whether or not exercising those rights will prevent perpetual maintenance of environmental values proposed for protection.



- Whether the tract is likely to become isolated from other areas maintained for important forest resources by development on adjacent tracts.
- Whether the landowner’s management objectives are compatible with the protection of resources they propose.
- Whether a land trust, conservancy, public agency, or other appropriate organization has expressed an interest in working with the TDF and the landowner to establish and monitor the easement.
- Whether other sources of funding for tract acquisition, easement closing, monitoring, and other associated costs are available.

Program objectives

Tennessee’s FLP objectives will be used to determine which eligible tracts will receive priority for participation in the Program. Objectives are aimed at protecting forest resource values that constituencies and the public consider of greatest concern. It should be emphasized that although the Program includes timber production as a potential FLP objective, the primary focus of the Program is on protecting threatened non-timber resource values with an emphasis on enhancing and maintaining a clean, abundant public use water supply. The objectives of FLP in Tennessee follows:

- Prevent conversions of forestlands to other uses.
- Preserve and protect water quality, fisheries, and water supplies.
- Preserve and protect riparian habitats.
- Preserve and protect fish and wildlife habitats, rare plants, and biological diversity.
- Preserve and protect natural beauty.
- Preserve and protect forest-based recreation opportunities.
- Preserve forestlands for current and future wood production.

In ranking applicant proposals, TDF and SFSCC will place priority on those tracts that possess multiple significant resources and opportunities that will achieve two or more FLP objectives. Priority will also be given to tracts whose owners demonstrate their active intentions to accomplish the objectives of the Program. In addition, consideration will be

given to whether focusing on larger parcels can utilize Program resources more efficiently.

Management

For projects involving conservation easements, TDF and easement holders are responsible for working cooperatively with participating landowners to develop the details of easements, landowners will be responsible for managing the resources covered by easements. Federal law and FLP Guidelines require preparation of a Forest Stewardship Plan or multi-resource management plan that must be prepared and approved prior to finalizing acquisition of the easement. Plans must clearly describe specific management objectives and strategies for significant resources identified in their easements. Landowners may utilize technical assistance available from TDF and other qualified resource professionals for development of their Forest Stewardship Plans.

For projects involving fee simple acquisitions, the state agency responsible for management must ensure the acquired property is managed according to the tenants of the FLP. Ongoing resource management plans of the managing state agency will suffice as evidence that properties are managed according to Forest Stewardship principles.

Monitoring easements

Each conservation easement established under FLP will require periodic monitoring to ensure that the terms of agreement are being honored and that resources are being protected and conserved. Baseline descriptions of resources will be developed by easement holders and used to assess changes in resource conditions over time, including any resource enhancements such as management of rare plants or measures to improve water quality.

Easement monitoring will involve periodic visits to tracts by easement holders and or third parties agreed to by landowners and easement holders. For conservation easements purchased with federal funds, monitoring and enforcement responsibilities will be assumed by TDF. For donated easements, responsibility for monitoring and enforcement will be retained by respective easement holders, except cases in which easements are transferred to the State.

In any case, ultimate responsibility for monitoring easements will remain with the organization that

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holds responsibility for enforcing them. Moreover, only individuals and/or organizations that are clearly qualified to assess the condition of the resources under easement will conduct monitoring.

FLP management and funding

The Department of Agriculture, Division of Forestry (TDF), the state lead agency in Tennessee, elects the state grant option pursuant to the provisions of the 1996 Farm Bill, Title III; Subtitle G, Section 374. Therefore, FLP acquisitions will be transacted by the State with the title vested in the State or a unit of state government. One exception to this policy involves donations where the donor may wish to make a donation to land trust, local, or federal government, and the potential receiving agency/organization agrees to accept the donation and to manage the lands or interest in perpetuity for FLP purposes.

The Cooperative Forestry Assistance Act, as amended, and USDA Forest Service FLP Implementation Guidelines established a cost-sharing process for state FLPs. The maximum federal contribution may not exceed 75 percent and is subject to availability of federal appropriations. FLP costs that may be covered by federal funds include the purchase of conservation easements or other interests in land by the State or eligible non-profit land trusts. Activities that qualify for federal cost-sharing include inventories, mapping, baseline resources descriptions, title searches, initial appraisal work, and drafting and developing easement terms.

The remaining 25 percent of Program costs must be paid for with non-federal matching funds or in-kind contributions from state, local, and non-governmental sources. In addition to the donation of goods and services, the properly documented value of conservation easements accepted as donations to the Program may qualify as a major part of the non-federal match.

Tennessee will attempt to maximize the effectiveness of limited federal FLP funds by placing a priority to fund project costs associated with conservation easements. Use of "bargain sales" by landowners will also be encouraged by the State. In such sales landowners receive payment for portions of the fair market value of the rights that are conveyed through conservation easements or other interests in land, and make a charitable donation of the remainder of that value.

Funding for subsequent monitoring and enforcement may include donations by landowners, non-profit organizations, or other sources; contributions from participating landowners that might be generated by management activities; and public appropriations for the purpose at the state and local level.

Landowners may seek federal income and local property tax relief following execution of easements.



Forest Legacy Areas Map

Tennessee's Forest Legacy Areas map was developed to focus program activities on mitigating or protecting the following trends or values as identified in the forest resources assessment.

Evidence indicates Tennessee's forests could be facing a period of accelerated parcelization and fragmentation (Forest Parcelization and Fragmentation chapter; pg 56). Some projections indicate Tennessee will experience a significant loss of forestland due to urbanization (Urbanization chapter; pg 53). Forested riparian areas, flood plains, and wetlands are of particular significance because of their numerous natural functions, including protecting drinking water supply, serving as wildlife habitat, and providing important recreation opportunities (Water Quality, Wetlands and Riparian Areas chapter; pg 34).

The Forest Legacy areas map displays watersheds that are heavily forested, face high levels of threat to development, and hold significant value in enhancing or maintaining aquatic resources. Aquatic resources considered include watersheds that either have public drinking water supply intakes, well established forested riparian habitats,

or critical aquatic wildlife habitat. Individual watersheds could possess more than one aquatic resource. This approach to identifying FLP priority areas will address all the program objectives of Tennessee's FLP with added emphasis on enhancing and maintaining a clean public use water supply. Watersheds that contain previously purchased Forest Legacy properties are also included.

This approach also allows for multi-state integrated collaboration. Tennessee FLP areas that lie adjacent to state borders create the opportunity for expanded Forest Legacy tracts and shared responsibility with neighboring states, specifically Alabama, Kentucky, North Carolina, and Virginia.

Since the eligible Forest Legacy areas are changing with the adaptation of this strategic plan, a transition period of two funding cycles will be utilized to accommodate projects underway in the old Legacy areas. For 2012 and 2013 funding years both the old and the new Legacy areas will be eligible for project proposals (Figure 49). Starting with funding year 2014 only proposals from the new legacy areas will be eligible (Figure 50). Any tract which adjoins an existing Legacy tract is eligible for proposal regardless of location relative to eligible areas/watersheds.



Figure 49. Forest Legacy areas through fiscal year 2013

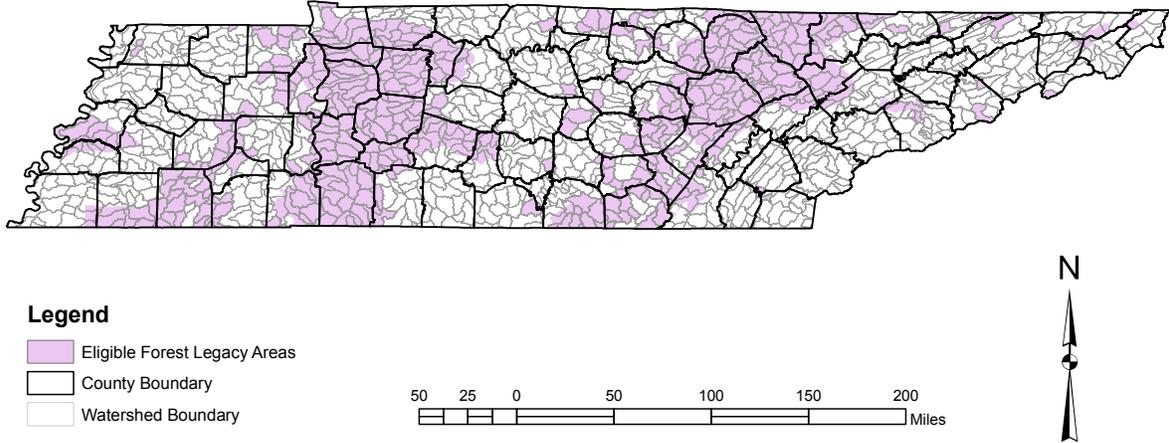
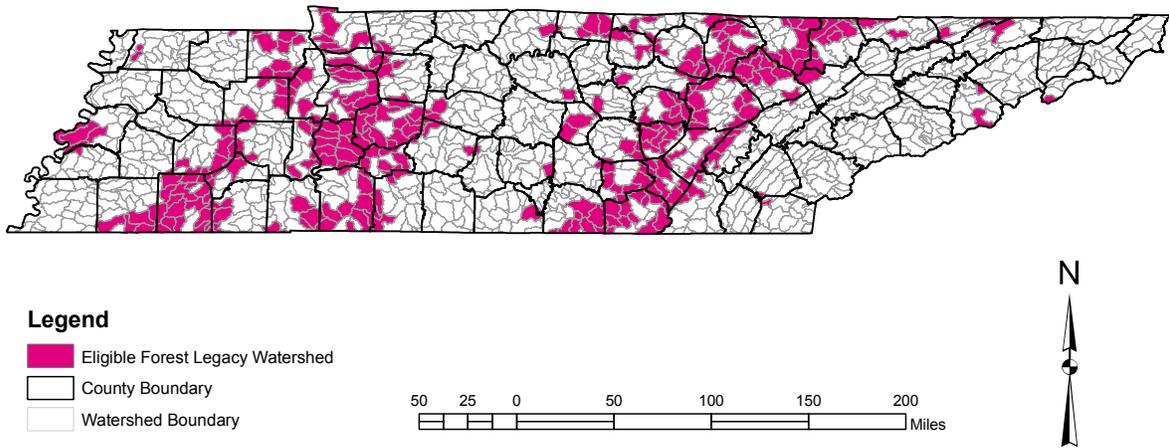


Figure 50. Forest Legacy areas beginning fiscal year 2014



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