

MAPPING THE SOUTH'S FORESTS OF THE FUTURE

Rachel E. Greene, Kristine O. Evans, Michael T. Gray, Todd Jones-Farrand, William G. Wathen

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Where will the South's forests be located in 2060? It's impossible to know with certainty, but predicting the location and extent of southern forests was the goal of the *Mapping the South's Forests of the Future* project. The purpose of this exercise was to help natural resource interests, economists, water users, and the public understand how current for protection, retention, and restoration efforts may affect forests over the next 40 years. Southern forests provide important ecological, social, and economic services from clean water and wildlife habitat to recreational opportunities and wood products. Population growth, development and related socio-economic factors are forecasted to cause a net loss of 11 to 23 million acres of forests to other land use by 2060 (see Southern Forest Futures Project¹). Better understanding where those losses may take place will help planners prepare for the future. Two qualitative, complementary indices were developed to provide a gradient of future forest retention and reforestation likelihood (Very High to Very Low) based on conservation status and interest, forest threats, socio-economic value of forests, and reforestation opportunities. Resources from more than 50 partners were tapped for this project.



Fig. 1. Project study area.

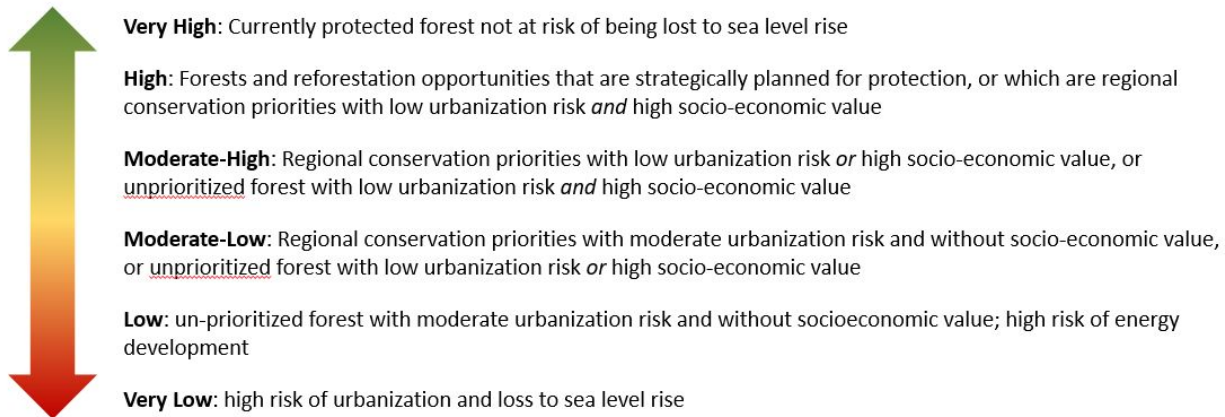


Fig 2. Forest Retention Index class descriptions.

Table 1. Forecasted Forest Retention Index classes at 2060 (millions of acres, % of currently forested study area).

	Very High	High	Moderate-High	Moderate-Low	Low	Very Low
ac (mil)	35.74	103.13	58.74	20.95	0.32	17.38
%	15.1	43.7	24.9	8.9	>0.1	7.4

¹ Wear, D. N., and J. G. Greis. 2013. The Southern Forest Futures Project. Gen. Tech. Rep. SRS-178. USDA Forest Service, Southern Research Station: Asheville, North Carolina.

Key Findings

- An estimated 59% (138.9 million acres) of the current 236 million acres of southern forest is projected to be retained with High or Very High likelihood at 2060. An additional 25% (58.7 million acres) is projected to be retained with Moderate-High likelihood. Thus, 197.6 million acres (84%) of the current 236 million acres of forests are projected to be retained with Moderate-High or better likelihood in 2060.
- Currently, 15% (of 236 million acres) of forests are protected; this is 73% of all protected lands in the study area (36.3 million of 48.6 million acres).
- Forest strategically planned for conservation (see Tier 1 Priority Areas in Final Report) that are classified as High, Moderate-High, or Moderate-Low declines from 20.6 million acres in 2030 to 18.3 million acres in 2060, an 11.3% loss.
- Some states (e.g., Georgia, Mississippi, Oklahoma, Illinois, and Florida) are projected to show a marked decline in forest classified as High likelihood for retention, with the most dramatic losses occurring between 2030 and 2040. These losses tend to be driven by urbanization, but inland migration of coastal forest plays a key role in coastal areas (e.g., Florida).
- By 2060, 17 million acres are at High risk of being deforested (Forest Retention Index classes Low and Very Low), an increase of 10.6 million acres from 2030. North Carolina, Georgia, and South Carolina had the greatest increases in forestland classified as Very Low retention by 2060, with high total potential forest loss up to 14% of the state's current forest area.
- Five million acres are projected to be reforested with High likelihood at 2060.
- Approximately 9.4 million acres in the Southern States are highly biodiverse.² Three million acres are currently protected. An additional 4.3 million acres are at High likelihood of remaining forested at 2060.

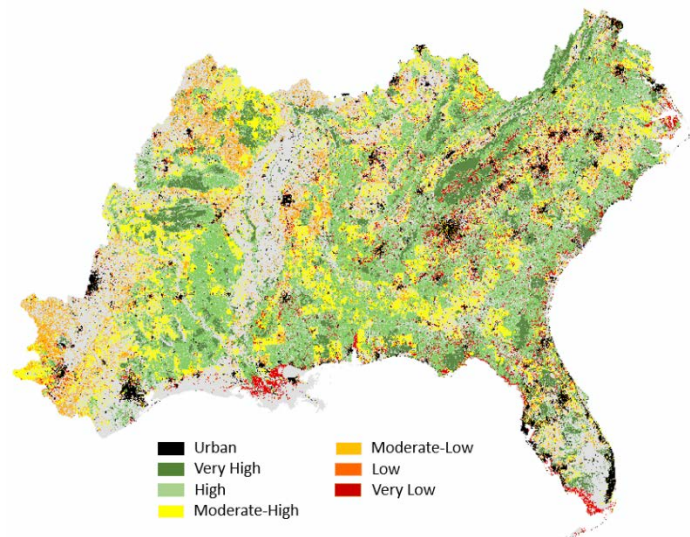


Fig. 2. Map of Forest Retention Index classes for 2060.

This tool may help target forest retention efforts, particularly landscapes subject to rapid development and volatility in timber markets increases risk in private forestland timber production. This tool also provides a collaborative, transparent, and defensible map that can aid in identification of key watershed areas where retaining forest is critical to ecological and socio-economic integrity.

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² Jenkins, C. N., K. S. Van Houtan, S. L. Pimm, and J. O. Sexton. 2015. US protected lands mismatch biodiversity priorities. *Proceedings of the National Academy of Sciences of the United States of America* 112(16): 5081-5086.