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## Outcome Oriented Policy: Protecting the Urban Forest Through Tree Preservation and Complementary Land Development Regulations in Austin, Texas

Keith W. Mars

*City of Austin*, [Keith.Mars@austintexas.gov](mailto:Keith.Mars@austintexas.gov)

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## **Outcome Oriented Policy: Protecting the Urban Forest Through Tree Preservation and Complementary Land Development Regulations in Austin, Texas**

The City of Austin has some of the most progressive urban forest and environmental land development regulations in the country. The City directly protects trees and forested natural areas through tree preservation ordinances and indirectly through development restrictions on impervious cover, endangered species habitat, and limiting development in environmentally sensitive areas. This suite of regulations has contributed to an overall canopy coverage of 37% with much of that canopy preserved in perpetuity despite Austin being one of the fastest growing cities in the country.

### **Keywords**

urban land preservation, urban forestry, urban natural areas

## INTRODUCTION

The City of Austin has some of the most progressive urban forest and environmental land development regulations in the country. The City directly protects trees and forested natural areas through tree preservation ordinances and indirectly through development restrictions on impervious cover, endangered species habitat, and limiting development in environmentally sensitive areas. This suite of regulations has contributed to an overall canopy coverage of 37% with much of that canopy preserved in perpetuity despite Austin being one of the fastest growing cities in the country.

## CONTEXT

Austin has a long history of urban forest and environmental protection regulations. The city's urban forest and environmental protection regulations first started from three pivotal events in the 1980s and early 1990s: the poisoning of an iconic live oak; rapid regional population growth; and threats to water quality at what is known as the soul of the city, Barton Springs. These events led to the adoption of stringent tree protection and environmental regulations, including, most recently, the adoption of a new tree ordinance in 2010 that requires a public hearing to request removal of large trees. In 2013 the City adopted regulations to protect small streams and headwaters to preserve water quality, but they serve as complementary natural area preservation regulations. Many of these ordinances have been challenged at the state legislature and have become proxy issues about the role of government.



Image 1. The City of Austin. photo credit: Keith Mars

## GOAL

Simply put, the ordinances are intended to protect more trees and natural areas. For example, in 2010 when the City adopted a Heritage Tree Ordinance to provide further protection for our largest trees, the ordinance introduced a requirement for applicants to go before a public commission in making their case to remove a heritage tree. One of the outcomes of this approach is an overall reduction in the number of requests to remove Heritage Trees as this adds uncertainty to the development project and necessitates exposing the development to public scrutiny. This procedural aspect of the ordinance is also partially responsible for an improvement in the number of heritage trees when comparing preservation rates of large trees before and after the ordinance. Another outcome of this ordinance is that more natural area is preserved, particularly when numerous heritage trees are clustered together as these trees have an umbrella effect akin to umbrella species and habitat protection.



Image 2. Photo credit: Keith Mars

## APPROACH USED

Many factors contributed to the success of these ordinances, but two notable ones are (1) community-driven regulations, and (2) the willingness to enforce the ordinances. The City of Austin is considered a Home Rule city by the Texas constitution. Home Rule cities have the autonomy to self govern to the extent they do not conflict with state or federal law. The City of Austin's tree preservation ordinances are an example of a city using its Home Rule authority. Citizen engagement is one of the hallmarks of Austin's public policy development. City Council hearings often last after midnight and certain development cases can have hours of citizen communication. In 1990, a pivotal moment in local politics, a proposed development was not approved by the city council after 14 hours of citizen communication. This robust citizen

engagement has carried into today, when in 2017 the State of Texas Legislature attempted to preempt municipal tree regulations during the regular session and into a special session. Citizens from across the state mobilized to provide public testimony and lobby their legislators to not overturn municipal tree regulations. After months of debate the legislature was unsuccessful.

The City's willingness to enforce regulations is evident in broad discretion provided to the City Arborist and staff to review and inspect development. Further, the broader land development code provides developers the ability to build in accordance with their land entitlements as long as it does not conflict with tree and environmental regulations, giving precedent to these protections. This simple language is incredibly meaningful for land development such that entitlements do not preclude our ability to administer tree protection requirements. Another novel tool is the option to secure conservation easements on otherwise developable land and allow that to count as mitigation for tree removals. This is particularly effective at preserving forested natural areas that otherwise would be vulnerable to development.

## RESOURCES

Funding to enforce urban forest preservation regulations is complex and varied and is largely dependent on enabling legislation. Tree preservation regulations are exercised based on the City's Home Rule authority and are funded by development review and inspection fees. The complementary regulations are funded by myriad sources such as the City's general fund and a dedicated drainage utility fee. Starting in 2014, the City started making significant investments and organizational realignment to properly fund and staff the City Arborist and supporting staff. Funding to enforce tree regulations made a dramatic shift from general to enterprise funding in 2017. This shift and the use of extensive permitting data led to a significant investment to build a program of 25 staff that review and inspect development projects to ensure the city's tree regulations are upheld.



Image 3. Photo credit: Keith Mars

## KEY RESULTS

1. The tree preservation ordinances have been overwhelming successful, with a 95% preservation rate for our largest trees. However, the majority of trees in the city are less than protected size and are much more vulnerable to removal during development.
2. Impervious cover limitations, endangered species habitat, protecting creeks and riparian areas, and other environmental protections serve as an umbrella approach to protecting intact forested areas, particularly on steep slopes and in floodplains.
3. In addition to the sense of place and local attachment to trees and natural areas, the City is increasingly recognizing the ecosystem services the urban forest provides. According to the US Forest Service Urban Forest Inventory Analysis, Austin’s urban forest “stores approximately 1.9 million tons of carbon, reduce annual residential energy costs by an estimated \$18.9 million per year, and reduces storm water runoff by an estimated 65 million cubic feet per year.” These data were used extensively at the state legislature to justify municipal interest in regulating urban forest and natural area protection.



Image 4: Balcones Canyon River Reserve. Photo credit: Keith Mars

## ADDITIONAL RESOURCES

Austin Urban Forest Inventory Analysis

<https://www.fs.usda.gov/treearch/pubs/50393>

City of Austin Community Tree Division Website

<http://www.austintexas.gov/department/community-tree-preservation>

Open Data Portal for Urban Forest Data and Reports

<https://data.austintexas.gov/browse?q=tree&sortBy=relevance>