Don’t *leaf* it to chance: Adopt or update your Tree Ordinance

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Purpose and scope of Indiana’s tree ordinances

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Benefits of the urban forest (all trees in city)

Trees are **urban green infrastructure** that appreciate and grow in capacity over time *if well-managed*.

- Biophysical infrastructure
- Socio-economic infrastructure
- Public health infrastructure
- Mitigation/adaptation tools for climate change

Source: https://www.halifax.ca/transportation/streets-sidewalks/urban-forestry/halifax-a-tree-city
Tree ordinances, a part of a well-managed UF

• Sets good and legally enforceable policy guiding urban forest governance and management on public land.

• Should establish authority: a tree board or forestry department—or both—and establishes their responsibility for planning an/or operationalizing public tree care.

• Provides clear guidance for planting, maintaining and/or removing trees from streets, parks and other public spaces; details activities that are required or prohibited.

Source: https://shop.arborday.org/9-how-to-write-a-municipal-tree-ordinance
Importance of ordinance now more than ever

• Trees are key adaptation and mitigation tool for climate change
• But trees are also negatively impacted by climate change
• So they **must** be monitored and cared for at all scales to ensure ecosystem services are sustained or grow over time.
• Just as we manage gray infrastructure to ensure it withstands pressures, functions optimally, we manage urban green infrastructure.

Source: https://ag.purdue.edu/indianaclimate/urban-ecosystems-report/
Two data sets give us insight into Indiana Tree Ordinances

1. Indiana Municipal Urban Forest Management Data set
   • Collected by IU student, Stephanie Freeman-Day in 2018-2019
   • Index included on the Indiana Green City Mapper:
     www.indiana-green-city-mapper-iu.hub.arcgis.com

2. Indiana’s Tree Ordinance Data set
   • Collected by IU student, Mathias Benko in 2021
   • Supported by Indiana Nature and Indiana Climate Fellows Program at IU:
     www.sustain.iu.edu/isdp/index.html
1. IN Municipal Urban Forest Management Data Set

What are the urban forest management characteristics for Indiana cities?

- Sampled 76 municipalities with “active” urban forestry programs:
  - **Tree City USA (TCUSA) community** and/or
  - Recipient of Community Urban Forestry (CUF) funding or Indiana Department of National Resources (IDNR) funding

- Inventoried 8 governance components for each city through online text analysis:
  - ✓ Tree City USA
  - ✓ CUF/DNR funding
  - ✓ **Tree Ordinance**
  - ✓ Arborist on staff
  - ✓ Dedicated urban forestry program
  - ✓ Recent inventory
  - ✓ Recent tree report/plan
  - ✓ Tree advocacy group
Why start by sampling TCUSAs in Indiana?

• TCUSA status requires several key urban forest management characteristics:
  1. **Tree ordinance**
  2. Annual urban forestry budget ($2 per capita)
  3. Tree board or department
  4. Annual Arbor Day celebration

• So, in Indiana:
  • All TCUSAs have a tree ordinance, but not all cities that have tree ordinances are TCUSAs

Municipalities that have tree ordinances and are TCUSAs

[Bar chart showing that 56 municipalities have tree ordinances and are TCUSAs, and 10 do not.]
Context: Indiana has opportunity to expand number of cities with ordinances through TCUSA

TCUSAs by state (2020)

Percent of population living in a TCUSA (2020)

- Kentucky - 38%
- Michigan - 39%
- Indiana - 42%
- Ohio - 46%
- Illinois - 61%
- National average - 50%

Source: Arbor Day Foundation
Regardless of TCUSA stats, tree ordinances are associated with funding

- State CUF funding from U.S. Forest Service passed to cities
- Projects funded include
  - Tree inventories and tree canopy inventories
  - Management and response plans
  - Professional education and training
  - Tree plantings
  - Community outreach and education

Source - Indiana DNR
But ordinances aren’t associated w/ tree data

- Inventories often are of street trees and park trees (public owned) or are canopy inventories
- Consultant- based inventories can come with an Urban Forest Report analyzing data, offering management suggestions

![Bar chart showing municipalities with tree ordinances and recent inventories with 14 Yes and 52 No.](image)

![Bar chart showing municipalities with tree ordinances and tree reports with 29 Yes and 37 No.](image)
Ordinances are not associated with tree management expertise

• Arborists may be employed by the city or serve as contractors
• Many smaller communities use regional arborists

• Urban forestry programs led by arborist or urban forest manager
• Often a component of a larger department (i.e., Parks)
Almost half of the cities with tree ordinances also have a tree advocacy group

- Advocacy groups like nonprofits are a way to expand resources, including time, funding, and expertise
- Activities include tree plantings, tree care, and community education
- Some municipalities have nonprofits with leadership roles in urban forest management
2. Indiana Tree Ordinance Data Set

Research question: *What is included in Indiana cities’ tree ordinances?*

- **Methods**
  - Identified 108 municipalities representing all Indiana counties
  - Searched online for tree ordinance per municipality
  - Once found, inventoried contents of ordinances through keyword search including whether the ordinance included:
    - Approved tree species planting lists
    - Requirements for “indigenous” or “native” species
    - Addressed “invasive” species

- **Ongoing research**, but preliminary results include...
• Most deal with public right-of-way trees and implicate adjacent property owner in maintenance.
• Most focus on maintenance, centered around pruning / trimming.
• Some incorporate concepts of sustainability.
• For those with approved tree species lists, some are written directly into code (versus related management plans). Problematic since code can only be changed by council vote.
• More analysis to come…
Tree ordinance best practices

Carrie Tauscher, Indiana’s Community and Urban Forestry Coordinator
Ordinances need to be based off:

- Data
- Management plans with clear goals/goals
- A clear vision for the desired future state of the urban forest in your community

If you don’t know what you have you can’t plan to manage it much less set meaningful legal guidelines
Intro pieces

Purpose
• A Statement That clearly sets the purpose of the ordinance (Law) will help avoid ambiguity and interpretation.

Applicability
• What property is covered by the ordinance?

Authority & Power
• Someone within city government must have clearly designated authority to administer the provisions of the ordinance.
• This sections defines, designates, or creates a department, board, commission, or individual responsible for the planting, care, and protection of city trees.
Duties of the Tree Board VS. Duties of the City Forester

City Forester
• ISA Certified Arborist or equivalent certification and training.
  • Other credentials
    • Tree Care Industry Association
    • Society of Municipal Arborists
    • Society of American Foresters

• Enforcement?
• Permits?
• Plan Review?
• Applicable but not ordinance based
  • Tree Work Crew Management
  • Contract Management
  • Where are they “housed”
Duties of the Tree Board VS. Duties of the City Forester

Tree Board
- ADF Recommends 1 attorney, 2 green industry, 2 interested residents
- CUF Recommends Tree boards of a minimum of 5 makeup is less strict but those without credentialed professionals should receive a small budget for training

- What requirements work best for your community?
- Must they be in your community if there are no ISA certified arborists in town?
- Consider the value of diversity and representation.
- Consider liaisons to critical boards that impact trees Sustainability, Streets, Stormwater....
Definitions

To avoid misunderstandings of terms that may be unfamiliar, to citizens and staff, should be defined.

• Best Place-Standards and Specifications appendix.
Tree Protection

If we wish to maintain and grow tree healthy canopy cover in our communities, we must strongly consider the feasibility of such a goal without tree protection in our ordinances.

• Invasive forest pests, insects/diseases that will harm the urban forest

• Retention of healthy trees on development sites
  • Following BMP for tree protection during construction.

• “Heritage trees” species rarity, old age, association with a historical event or person, abnormality, scenic enhancement.

• Retention of canopy for ecosystem services provided such as stormwater mitigation
  https://www.itreetools.org/
Private Trees

Trees on private property often affect the safety and welfare of other trees and people other than the owner.

A provision to allow community action is needed.

This section provides authority to inspect private trees designate them as public nuisances and demand their removal or mitigation such as pruning when necessary.

**Some communities have the flexibility to cover this in existing nuisance laws.**
Licensing

- A solid way to protect trees & citizens from irresponsible companies or individuals who pose as arborist is to require practitioners to have licenses.

- Conditions for obtaining a license may vary but can include:
  - Credentialing or Certification
  - Education
  - Mandatory annual training locally attainable or provided by the municipality
  - Insurance

**Did you know?** All businesses who do professional tree work in the City of Muncie have to have a registered Arborist License with the Urban Forestry Office, according to the [Muncie Tree Ordinance Sec. 97.05.](#)
Permits

Permits provide a way to make certain that anyone who plants, works on, or removes public trees (and sometimes private trees) is knowledgeable and capable of doing the job right.

- Permits also are a means to ensure compliance with standards and specifications
- Allow for follow-up inspections
- Generally serve as a tool for enabling a community to guide the future urban forest condition
Tree Planting **Maintenance** and Removal

**Topping** - It shall be unlawful as a normal practice for any person, firm, or city department to top any street, park, or other tree on public property.

The International Society of Arboriculture defines topping as an inappropriate technique to reduce tree size that cuts through a stem more than two years old at an indiscriminate location.
Landscaping/ Planning and Zoning

• This section can address the process of having new landscape plans reviewed by the city forester or tree board with issuance of building permits.

• Elements of this are likely in existing planning and zoning ordinances.

• Make sure to seek out any and all ordinance that deals with tree related issues to reduce conflicting ordinances /requirements
Tree Planting Maintenance and Removal

The Material in this section is best included in a separate “Standards and Specifications” Appendix/Addendum.

• It is more easily edited/updated with current Best Management Practices (BMP’s).
• Exception: prohibited practices
• Reference ANSI A300 and Z133 standards and associated ISA BMP’s
Tree **Planting** Maintenance and Removal

- **Tree Species**
  - Spacing
  - Recommended list(s)
  - Restricted species
  - May also provide an option for residents to submit for review by the tree board species not listed.
  - These lists are best set using inventory data to promote diversity
  - Out of the body of the ordinance!
Tree **Planting** Maintenance and Removal

**Distance from Curb and Sidewalk**

- How do you deal with older neighborhoods who don’t have the minimum space?

- Are they allowed to replace lost trees?

- What about new sidewalks?

- Tree Compatible/adaptable pavement systems?

- Provide diagrams
Tree Planting Maintenance and Removal

Utilities

• Always default to your local overhead utility for the planting distances and clearance requirements. “Right Tree Right Place”

• Be careful, you may not be able to plant in ROW

• Distance to utility requirements may need to reviewed/set for tree maintenance and removal work and certifications needed to complete that work.
Enforcement

For an ordinance to be more than a piece of paper, authority must be given to the city forester or other official to enforce the provisions. This includes the right to issue notices of violation, notices to perform work, and the ability to stop work.

Details about the process of rule making, review, and approval by the governing body and enforcement need to be included.

*If you Ordinance has no TEETH, you don’t have an effective ordinance.*
Vibrant cities cultivate thriving urban forests that boost public health, safety, sustainability, and economic growth.

MAKE THE CASE  MAKE IT HAPPEN
Online Ordinance Resources

• International Society of Arboriculture (ISA)
  • http://www.isa-arbor.com/Credentials/Types-of-Credentials/ISA-Certified-Arborist-Municipal-Specialist/Tree-Ordinance-Guidelines

• American Society of Consulting Arborists (ASCA)
  • https://www.asca-consultants.org/page/TreeOrdinances

• American Public Works Association (APWA)
  • https://www2.apwa.net/Documents/About/CoopAgreements/UrbanForestry/UrbanForestry-3.pdf

• Chicago Regional Trees Initiative (CRTI) Templates
  • https://www.dropbox.com/sh/mka3odgr5zn63ug/AADoQN667qMOD4z1L5Km41_Ca?dl=0
Resources Continued

• National Arbor Day Foundation - Major Content of this PPT
  • https://www.arborday.org/programs/treecityusa/apply.cfm

• Tree Ordinance Development Guidebook - Georgia

• USFS Sustainable Urban Forest Guide
Examples:

- Bloomington Urban Forestry Plan - https://bloomington.in.gov/about/trees/urban-forestry-plan
- Columbia City Inventory and Management Plan http://columbiacity.net/government/tree-board/
- Highland Management plan https://www.highland.in.gov/media/HighlandUrbanForestManagementPlan_11-6-17.pdf
- Ordinance: https://www.codepublishing.com/IN/Highland/#!/Highland08/Highland0825.html#8.25
- Valparaiso Urban Forestry https://www.ci.valparaiso.in.us/1124/Keeping-Our-Urban-Forest-Healthy-and-Gro
Don’t Leaf it to Chance – Adopt or Update your Tree Ordinance

City of Columbus
Street Tree Ordinance Update Experience
City of Columbus – Street Tree History

• Not a Tree City USA

• Arborist in Parks & Recreation Department 1992-2013

• Attempt to update Street Tree Ordinance in 2011 - unsuccessful

• Tree Canopy Partners – Citizen Group 2016

  • Work towards becoming a Tree City USA

    1. A Tree Board or Department

    2. A Tree Care Ordinance*

    3. A Community Forestry Program with an annual budget of at least $2 per capita

    4. An Arbor Day Observance & Proclamation
Current Street Tree Ordinance

Adoption Date Unknown

1. Any person may plant a tree in the right-of-way. – No standards

2. Property owners are responsible for trimming of trees.
   
   • Trim up to 12 feet from the ground on the street side
   
   • Not extend more than 12 feet from the trunk
   
   • Trimmed so shade tree is no taller than 50 feet.
3. Trimming shall be done to the satisfaction of the motor vehicle/highway division of the code enforcement department. – Department does not exist.

4. If owner refuses, the City can perform the work and charge the property owner. – City performs the work and does not charge the property owner.
Approach

• Get data – Street Tree Inventory (DRG), Urban and Community Forestry Grant
• Understand current operations
What the City is doing -

- Engineering is planting street trees on road improvement projects.

Railroad overpass Tree Planting – 658 Native Trees
What the City is doing -

- Public Works is pruning and removing trees for public safety.
- Public Works operates a 50/50 cost share program on street tree removal.
- Planning Department is requiring street trees to be planted in new subdivisions and some commercial projects.
- Parks is managing all park trees and some of the new street tree plantings.
What the City is not doing -

- Preventative/proactive maintenance of existing street trees
- No review process for new street tree plantings
- No street tree standards
- Follow-up with new plantings
- Missing out on tree funding opportunities
- No public education
Ordinance Development

- Understand the barriers – develop strategies
  - Public – hard to quantify
  - Elected Officials – Individual conversation, tree inventory presentation
  - Internal staff, department heads
Ordinance Development

• Engage stakeholders (City staff, citizens with an interest in trees)
• Engage an elected official
• Draft Ordinance (DRG), Landmark Foundations Grant
  • Not a boilerplate
  • Reflect what we are doing
  • Provide basic standards
    • Reference Tree Work Manual
  • Moving us forward - baby steps
Proposed Street Tree Ordinance

Draft Street Tree Ordinance
1. Definitions
2. City Responsibility – reflect what we are doing – shared responsibility
3. Property Owner Responsibility – better defined
4. Financial Assistance – 50/50 program
5. Street Tree Committee – City staff
6. City Arborist - aspirational
7. Standards for Tree Care – Tree Work Manual

*We are intentionally not designating authority.