

Indiana Department of Natural Resources  
Division of Forestry Community and Urban Forestry Program  
**2020 Community & Urban Forestry Assistance Grant (CUFA)**  
**Application Instructions and Guidance**

This grant program is made possible by funds awarded to the IDNR Division of Forestry Community and Urban Forestry Program by the USDA Forest Service Northeastern Area. We encourage communities throughout Indiana to advance their urban forestry goals through application to this program. This packet contains the forms, instructions, and examples needed to successfully apply.

**IMPORTANT THINGS TO KNOW BEFORE YOU APPLY:**

- If you received a CUFA grant in 2019 from this office you are NOT eligible to apply in 2020
- All grant funds must be matched by the applicant on a reimbursable basis
- All application materials (forms, documents, appendices, etc) are to be submitted in digital format and emailed to **TLCOLEMAN@dnr.in.gov**. Faxed or hardcopy application materials will not be accepted.
- Application deadline is **Friday, September 25, 2020 at 4:30 pm EDT**
- Awards will be announced via email in Fall/Winter 2020
- Activities funded by these grants will begin in early 2021 and conclude by June 30, 2022

**Additional information and applications are available from:**

IDNR Division of Forestry CUF

402 W Washington St W296

Indianapolis, IN 46204

Phone: 317-234-6568

E-mail: [TLCOLEMAN@dnr.in.gov](mailto:TLCOLEMAN@dnr.in.gov)



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## Completing Your Grant Application

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Follow the steps below to complete your grant application. (also see the [Grant Checklist](#))

**Read the Entire Grant Application Instructions:** There is no secret sauce to writing a CUFA grant! Understanding and incorporating the goals we have outlined in the guidelines into your Narrative, however, is key to writing a successful grant. Look carefully at the samples we provide to craft your budget and timeline. Check your math. Look up the species on your tree lists to make sure they are appropriate for your project and that your Work Plan reflects that. Above all, stay organized and you will be able to do it.

**Application Form:** Complete the grant application form (state form [55857](#)). This form requires basic information about the Project, Applicant, Project Coordinator, and contact information. We recommend NOT naming the same person to be both Project Applicant and Coordinator. Think of the Applicant as the representative for your organization (Mayor, Council President, Nonprofit Chair, etc) while the Coordinator is the person overseeing the project activities (Parks Employee, Tree Board Member, etc).

**Narrative:** The Narrative should address each of the questions listed in the accompanying [Narrative Questions](#). We recommend that you type in your answer immediately following each question. Keep each response concise - the entire narrative should not exceed 4 pages in 12pt font. **Each narrative point for your desired project must be discussed in this section.** If a question is not applicable, then answer N/A. But make sure to answer all questions that apply to your project! For example, if you intend to complete a tree inventory and tree planting, you will have to complete both the inventory and tree planting questions. If appropriate, you may include maps, photographs, graphics, etc. as appendices. It is necessary due to space limitations that all materials are formatted to 8 ½ x 11 or 11 x 17 page sizes.

**Budget:** Prepare a detailed itemized budget that describes the expenditures of grant money and the Applicant's match for each part of the project. Please use the format shown in the *Example Budget* and complete the budget in Excel. Points will be deducted for budgets with inaccurate arithmetic or overly broad budget items. If needed, please include a **Budget Explanation** for information not addressed in the project narrative; include any rate or price estimate explanations necessary for a clear budget. The budget should be a separate document from the narrative. (see [Example Budget](#))

**Timeline:** Provide a detailed project timeline including project execution items and accomplishment reporting as well as a project end date. **All project work must be completed by June 30, 2022.** Any application with a timeline end date after the project close date will **NOT** be considered. The Timeline should be included as a separate document and labeled. (see [Example Timeline](#))

**Work Plan Chart:** This item is required for tree planting projects ONLY. We recommend that this chart is best presented in an Excel spreadsheet and should include at minimum: location of proposed planting, description, width/size of planting space, any possible overhead or underground site conflicts, and

species proposed for planting. The Work Plan Chart should be included as a separate document and labeled. (see [Example Work Plan Chart](#))

**Public Comment Forms:** Include a minimum of 6 public comment forms (state form [55862](#)) with a minimum of 3 from agencies/organizations (local, state, and county government and not-for-profit organizations, and universities/colleges) and 3 from individuals (corporate entities, local business, community residents/private landowners and nongovernmental organizations (NGOs)) partners who will benefit from your project.

**Not-for-Profit Documentation:** Not-for-profit applicants **must** include proof of 501(c)3 status.

**Proof of Bidder Registration:** All recipients of grants must register their Applicants as Bidders with the State of Indiana Supplier Portal (<https://www.in.gov/idoa/2464.htm>). Doing so sets up a formal relationship between your organization as Subgrantee and the state government to enable the two of us to fulfill contracts and financial transactions. We **strongly** recommend bidder registration at the time of application if your organization does not already have it set up. Include a copy of your Bidder registration confirmation (that includes a Bidder ID number). Also remember to keep a record of who is registered as your Applicant and what your password is to the Bidder Profile on the Supplier Portal.

## Submitting Your Grant Application

All required applications and attachments must be compiled and submitted in any of the following digital document format types: Microsoft Word, and/or Excel. Please email them together in one (1) digital copy to [TLCOLEMAN@dnr.in.gov](mailto:TLCOLEMAN@dnr.in.gov) with the subject line composed of: **name of community + 2020 CUFA Grant Application**. The closing date for grant applications is **Friday, September 25, 2020**. **Late applications will not be accepted**. Comment forms or other application addendum documentation will not be accepted after submission of the grant application.

## The Grant Program

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Our quality of life in cities and towns is enhanced by effective state programs that foster cooperative efforts to plan for, plant, protect, and maintain community trees, forests, and related natural resources. To that end, the Indiana Department of Natural Resources (IDNR), Division of Forestry Community & Urban Forestry Program (CUF), and the US Forest Service Northeastern Area sponsor this Community and Urban Forestry Assistance (CUFA) Grant Program.

The objective of this funding opportunity is to inventory, evaluate, plan, and plant trees and to educate the public about urban forests. Applicants should then consider their community's goals in fulfilling this objective. Examples of these goals include:

- Restoring diminished community tree canopy
- Improving watershed health

- Ensuring that urban forests provide communities a variety of ecosystem services such as clean air and water, increased property values, reduced erosion and stormwater runoff, as well as to moderate temperatures, lessen energy demands, and offer year-round enjoyment
- Enhancing the quality of life in participating cities, villages, and townships
- Promoting urban forestry benefits through the proper planting and care of trees
- Strengthening and supporting existing comprehensive community tree care programs
- Contracting with local governments for the removal of ash trees and the purchase and planting of non-Emerald Ash Borer (EAB) host trees on land owned or controlled by local governments
- Diversifying urban forests for long-term sustainability and resistance to future pests
- Promoting the Indiana nursery industry through the sale of high quality tree replacement stock and promoting Indiana arboriculture and landscape industries through management planning, tree removal, and installation
- Preemptively reducing a community's ash or other susceptible host population to create a more diverse community forest and to avoid the inevitable economic burden borne by local government budgets in the aftermath of a pest invasion
- Promoting risk management within Indiana communities by properly assessing trees and developing mitigation plans.

*\*Note\* Proposed projects should align with one or more of these listed goals.*

The only allowable costs for this grant program include the cost of (1) tree inventories, (2) management plans and ordinance updates, (3) purchase of trees, (4) planting trees, and (5) urban forestry educational programming, training, publications, signage, etc. to encourage comprehensive urban forest management and better public understanding of urban forestry topics.

## **National & State Grant Guidelines**

Funding from the USFS enables the State of Indiana to partner with local governments and non-profit 501(c)(3) organizations for the purpose of establishing effective community and urban forestry programs through subgrants. These Subgrantees will ensure the following requirements are met:

1. States will establish criteria and comply with UCF Program direction, appropriate Office of Management and Budget (OMB) circulars, and applicable Federal and State regulations;
2. While tree planting is an allowable use of funds, the states shall establish limits on the percentage of funds available for tree planting;
3. Tree planting projects must include a work plan and a maintenance plan approved by the State Forester or his or her designee. Other UCF projects must have a work plan and a defined product or measurable outcome;
4. Plant materials used in tree planting must, at a minimum, meet the American Standard for Nursery Stock, and tree protection and maintenance must meet American National Standards Institute (ANSI) standards; and
5. Subgrantees are required to adhere to all Federal rules and guidelines of the State pursuant to this program.

*\*Note\* Proposed projects must align with all guidelines that apply to them.*

A community must also show that it is moving toward accomplishing the following national performance measures in their grant proposal:

1. **Management Plans:** The community must have a current and active community and urban tree and forest management plan supported by professionally-based resource assessments/inventories;
2. **Professional Staff:** The community relies on the services of individuals who have one or more of the following credentials, and who are directly employed or retained through written agreement to advise and/or assist in the planting, protection, and maintenance of community and urban trees and forests. These requirements are intended to ensure that the person with the primary responsibility for program management has the training and experience to properly and professionally manage urban forest resources and advance the community's UF program:
  - a. Degree in urban forestry or a closely related field (e.g., forestry, horticulture, arboriculture, etc.); or
  - b. International Society of Arboriculture (ISA) certified arborist or equivalent professional certification.
3. **Ordinance/Policies:** The community has adopted and can present documentation of local or statewide ordinances or policies that focus on planting, protecting, and maintaining their community and urban trees and forests.
4. **Advocacy/Advisory Organization:** The community has local citizens groups that serve as a catalyst for active local urban forest resource management within the community.

These additional State of Indiana requirements must be met by the Subgrantee:

1. Projects must be on public lands or in public rights-of-way.
2. All projects require a 1-to-1 match. This match must be shown in the application.
3. To be eligible for a grant, applicants must be a:
  - a. **Municipality.** As defined under IC 369-1-2 a municipality is a city, town, township, county, school corporation, library district, local housing authority, fire protection district, public transportation corporation, local building authority, local hospital authority or corporation, local airport authority, special service district, or other separate local government entities that may sue or be sued. It does not include special taxing districts.
  - b. **Non-profit 501(c)3:** Organization as defined under IC 23-7-1.1. Non-profit organizations must include documentation of their not-for-profit status.
4. An applicant may submit only one application. Only one application PER community will be awarded. It will work to an applicant's advantage to work with non-profits and government entities within their community or county to expand the scope of their project.
5. From time to time, changes may be needed in the grant. **All changes must be approved by the CUF Coordinator in writing and approved in advance.**

## Grant Awards

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Requests for grant funds must fall within the range of \$1,000 - \$25,000.

1. This grant funds six specific project types and each has funding limitations. A Subgrantee may choose to focus on one or more type of project. Total funds requested cannot exceed \$25,000. All grant funds must be matched by the applicant on a reimbursable basis. The Project Coordinator must document all expenses to be reimbursed.
2. Project Types
  - a. **Tree Inventory/Assessment (\$1,000 - \$20,000):** The costs associated with community tree inventory projects may be covered by this category. Grant funds must be used for the development and implementation of a community tree inventory.
  - b. **Management/Response Plans (\$1,000 - \$8,000):** The community may use this portion of the grant to cover expense related to creation, or update, of an urban forestry management or response plan, and ordinance review and update.
  - c. **Education/Training (\$1,000 - \$5,000):** The community may use this portion of the grant to cover the cost of educational or training opportunities for community staff, advisory board members, or local officials to receive training on urban forestry. Grant funds must be used for educating and training tree advisory groups, staff, and local officials in the proper care and management of urban forests.
  - d. **New Tree Planting (\$1,000 - \$10,000):** New trees may be planted in a community to augment or replace existing trees lost to disease or other factors. Projects must address air quality, water quality, or other pollutants in the area. Projects are also encouraged to address inequities in access to green municipal infrastructure. At least 90% of the trees must be species native to Indiana. Additionally, unless a current inventory and management plan demonstrates an overall tree community population of the genus *Acer* under 10%, no maple trees will be funded. If the overall tree community population is under 10%, then no more than 10% of grant project trees are to be in the genus *Acer* (maple). To receive reimbursement, the standards in Addendum A - Minimum Tree Planting Standards must be met.
  - e. **Community Education/Awareness Events (\$1,000 - \$5,000):** This portion of the grant may be used to promote the understanding and value of urban forestry and the urban forests. An example would be Arbor Day. Allowable expenses would be speaker fees, urban forest tours, etc. (*grant funds may NOT be used to purchase t-shirts, promotional prizes, or food*).
  - f. **Other Activities (\$1,000 - \$15,000):** This category may be used to fund such activities as the development and implementation of a community website/webpage specific to urban forestry. This category may also be used to develop any other projects specific to urban forestry and/or arboriculture.

**\* Note\*** *This list is not all-inclusive and ideas may be discussed with the CUF Coordinator for suitability.*

## Monitoring and Accountability

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Grant recipients shall document and report all expenditures and accomplishments. Projects will be reviewed by IDNR personnel upon completion. The purpose of the review is to verify financial expenditures and ensure that they are properly documented. The following guidelines will assist you in correctly planning your project costs.

1. All project expenditures must occur during the project period (award notification date through June 30, 2022).
2. Reimbursement requests and final expenditures must conform to those proposed in your application, so plan your budget carefully. Any budget changes must receive prior approval from the CUF staff.
3. Subgrantees must save copies of invoices, receipts, credit card statements, purchase orders, claim vouchers, and/or cancelled checks (front and back) to document all expenditures of grant money and match money.
4. All grant/match labor activities will be documented as the work is done using the spreadsheets, forms, and reports provided by the CUF office.
5. For each budget item expense over \$3,000, the Subgrantee must get a minimum of three quotes/bids before selecting a contractor and MUST submit that information to CUF prior to selection. The Subgrantee must document the quotes/bids in writing and list the contractor, address, phone number, and the dollar amount. If a contractor declines to submit a bid, the Subgrantee must obtain a letter stating so on company letterhead. If the lowest quote/bid is not chosen (allowable), the Subgrantee must explain why.
6. The following uses of grant money or donations are ineligible as grant costs or match:
  - a. Food purchases
  - b. Shrubs or other ornamental plants
  - c. T-shirts or promotional prizes
  - d. Vehicles and equipment purchased with federal money
  - e. Labor from federally funded employees
  - f. Tools or equipment that exceed \$150 each in value and are not likely to be used up during this project (this does not apply to software developed specifically for urban forestry purposes).
7. All **tree plantings** will be implemented in accordance to the guidelines found in Addendum A.
8. All **tree inventories** and **management plans** must be compiled in accordance to the guidelines found in Addendum B.

## Local Match

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Grants awarded to an applicant must be **equally matched or exceeded by the Subgrantee**. Match can be all cash, all in-kind, or a mix of both. *Note that any cash match helps expand the scope of a grant project.* The applicant must submit a detailed budget listing project costs and the source of its funding for the project. The proposed match must be directly related to the project and must occur during the



grant period. Since this is a federally funded grant, the applicant can use state or local funds for the match. **Other federal funding sources cannot be used for the applicant match.**

The applicant's match may come from several sources including:

1. Money from the applicant's budget designated for the project
2. Private donations of cash that are spent on the project (additional trees, for example)
3. In-kind donations of labor, consultant fee discounts (i.e., 5 year database subscription for the cost of 1), use of equipment to record data, nursery discounts and donations, heavy equipment use, tree planting, ash tree removals, volunteer labor, etc.

Grant funds may be used to purchase only landscape-grade trees. All labor and other supplies, as well as the planting of the trees themselves, qualify as match for this grant.

1. **Administrative:** Administrative costs used as match cannot exceed 10% of total grant amount. Common administrative activities include grant reporting, purchasing, any clerical functions.
2. **Staff Time:** labor and project coordination time should be valued at the employee's wage rate.
3. **Fringe:** The value of benefits paid to the employee may also be included in calculating match. (This is usually determined by the employer as a percentage of salary).
4. **Skilled Labor:** should be valued at the donor's established wage rate, or the current average wage rate for that trade. To qualify as skilled labor the donor must practice or have been employed in that specific profession or trade. All donated labor used on a project must be documented as the work is done.

**5. Volunteer Labor:**

Adult Volunteers

- a) The wage rate for adults who serve on urban forestry non-profits, tree boards or commissions is \$20.00 per hour. If they are serving in their professional capacity and offering advice in their professional capacity, then the rate is the current wage rate for that profession.
- b) Unskilled labor donated from the public should be valued at the wage rate for that particular job. A beginning volunteer wage rate for jobs for adults involved in unskilled aspects of urban forestry is: \$13.00 (Bureau of Labor Statistics/forestry work).

Youth Volunteers

- c) Ages 13-18: \$7.25 per hour (Indiana minimum wage rate)
- d) Ages 7-12: \$4.00 per hour

6. **Materials:** the value of donated materials should be documented with a receipt or a quote on company letterhead from a local vendor who supplies those materials.
7. **Equipment Usage:** to determine value of equipment usage, obtain a scale of hourly rental rates on letterhead from a local rental company that rents similar equipment. In-kind equipment can also be valued at the rate used internally by an agency. Vehicles and equipment previously purchased with federal money CANNOT be used as part of the match.
8. **Mileage:** mileage logs must be kept for all vehicles used as part of the match and valued at the business mileage rate accepted by the IRS. Submit mileage to the CUF office at time of

reimbursement request. The CUF office will provide the most current value as the state of Indiana Business mileage rate may change over the duration of the grant. Find current mileage rates at: <https://www.irs.gov/newsroom/irs-issues-standard-mileage-rates-for-2020> . Statute sets volunteer mileage rate at 14 cents per mile.

9. **Private Cash Donations:** in order to be counted as match, donations of cash must then be used on applicable project expenses (such as the purchase of materials) and shown with proper documentation.

## Grant Review, Evaluation, and Award

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Grant applications will be evaluated and rated by the IDNR Division of Forestry independent review committee comprised of urban forestry professionals. Proposals will be evaluated on how well they meet the criteria outlined in these guidelines.

Once all applications have been evaluated, they will be ranked. The projects, in ranked order, will receive available funding. In some cases, grant requests may be reduced to allow better distribution of funds. Applicants will be notified in Fall/Winter 2020 as to the status of their applications. Projects approved for funding can plan for start-up following the signing and approval of the State Grant Agreement.

## Grant Period

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The official start date of the grant project will be the date you are informed of your award. **Your project must be completed by June 30, 2022.** *Expenses incurred prior to the start date, or after the deadline for completion, are not eligible for inclusion in the project and will not be reimbursed with grant funds.*

## Grant Payments

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Grant money will be received by the Subgrantee on a reimbursement basis. This means that ***the Subgrantee must make expenditures and then submit proof of payment for reimbursement as outlined in the 'Monitoring and Accountability' section above.*** Documentation of an equal match must accompany each claim for reimbursement. Reimbursement requests may be made on a periodic basis to the IDNR as long as the reimbursement is at least \$500. The first request for reimbursement payment may be submitted after the Subgrantee and all parties have signed the state Grant Agreement.

All payments will be made via bank transfer and require the Grant Applicant to register a bank account number with the State of Indiana online Supplier Portal (see Proof of Bidder Registration on pg 4).

The final **20% of the grant award will be held** until the project has been **completed, inspected, and necessary documentation has been submitted and reviewed.** Subgrantees must submit all final documentation and request final payment no later than **August 15, 2022.**

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## Addendum A: Tree Planting Project Requirements

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The following are minimum standards for tree planting projects funded by CUFA grants. Any tree planting project that follows these standards should see the trees thrive and grow to a mature age. Local ordinances or guidelines with more stringent standards should be honored.

### Planning

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1. The project will follow the Work Plan submitted in the grant proposal. Any changes to this plan will be reviewed and agreed to by CUF personnel before beginning planting. This Work Plan will also comply with any local detailed tree planting and maintenance plans prepared by a qualified professional and coordinated with local agencies to avoid conflicts.
2. Utilities must be indicated on the plan, and where underground utilities may be present the local utility must be contacted prior to planting.
3. A minimum of one (1) year warranty is required on all stock contracts.

### Species Selection

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1. Species will be selected to fit the planting sites, taking into consideration soils and rooting space, overhead space, adjacent utilities and buildings, drainage, pollution problems, and other site conditions.
2. The miniaturization of the urban forest is becoming a significant issue. Larger trees yield larger benefits. Preference will be given to projects that prioritize the planting of species that will naturally grow to a large size. Make sure to plant the largest site appropriate species for each planting location. Conflicts preventing such a selection should be noted in the work and site plans (e.g. utility conflicts).
3. All species will be appropriate for hardiness zone 5 in northern Indiana and hardiness zone 6 in southern Indiana (see USDA Plant Hardiness Zone Map).
4. A minimum of 90% of trees planted will be species native to Indiana; cultivars of native species are acceptable.
  - a. Additionally, unless a current inventory demonstrates a population under 10% in the genus *Acer* (maple), no maples are to be planted. Communities comprised of less than 10% *Acer* are allowed to choose *Acers* for up to 10% of their project trees.
5. All trees used will be true to name. Trees must be a minimum of 1" and maximum of 2.5 inches caliper (measurement of trunk caliper 6" from soil grade) and/or a minimum of 8-feet tall for deciduous species and at least 4-feet tall for coniferous species (as defined in [ANSI Z60.1 – 2014 American Standards for Nursery Stock](#)).
  - a. Larger stock, at least 2 to 2½ -inches in caliper is preferred in high-traffic areas, such as in downtown locations. No tree larger than 2.5 inches caliper will be eligible for reimbursement or used as match.
6. Only high-quality nursery stock trees will be eligible for reimbursement (park-grade stock is not eligible). Whips and seedlings are also excluded.
7. In caring for trees prior to planting, all precautions customary in good trade practice will be taken.

## Site Selection

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1. Projects will be prioritized that select planting sites that are suitable for the planting of large canopy trees
2. Trees will be located so that they do not block infrastructure such as signs and lights and they do not reduce visibility.
3. Trees will not be planted within 30 feet of an intersection or 15 feet of driveways and alleys.
4. Trees will not be planted within 10 feet of utility poles or fire hydrants.
5. Large street trees (mature height greater than 45 feet) should be planted a minimum of 45 feet apart and with a minimum of 6 feet of rooting width.
6. Medium street trees (mature height between 45 feet and 30 feet) should be planted a minimum of 20 feet apart, and with a minimum of 5 feet of rooting width.
7. Small street trees (mature height less than 30 feet) should be planted a minimum of 15 feet apart, and with a minimum of 4 feet of rooting width.
8. Only trees with mature heights less than 25 feet will be accepted planted under or within 20 feet of overhead utility lines (defer to your local utilities' standards for planting distances from overhead lines).

## Planting Standards (see diagram on pg 14)

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A **qualified professional Arborist OR trained volunteer OR the Project Coordinator must be ON SITE** to supervise all tree planting. The following criteria will be used as a minimum in carrying out and inspecting the projects.

1. Holes dug for planting of trees will be at least one and a half times the diameter of the root system or root ball. Sides of the hole should be gently sloped and slightly less deep than the rootball.
  - a. Dig the planting hole shallower in areas with wet soil conditions and backfill up to the edge of the rootball. This will allow for "settling" of the tree.
2. Trees will be planted with the root flare at grade. This may mean removing soil on top of the rootball to get to the flare. In compacted or heavy clay soils, they can be planted slightly higher (no more than 1/8 of the root ball above ground level). Seeing the root flare at grade level is crucial. **In no case should the first root emerging from the trunk be more than 1" below the soil level.**
3. Cut any circling roots prior to planting the tree.
4. Strings and twine will be removed from the trunk(s) of trees.
5. **The burlap and wire basket will be completely removed from the upper ½ of the root ball, or as needed to prevent obstruction of the primary structural roots of the tree. Removal of the entire basket and burlap is acceptable but stakes and ties are recommended when the entire basket is removed.**
6. Backfill with existing site soil. Large rocks and debris may be removed. Excess soil from the hole will be removed from the site; **leftover soil should never be placed over the root zone.** This changes the grade of the landscape and plants the tree too deep.

7. Trunk wrap is not necessary. However, a freestanding wrap/screen tube may be used when sensitive species are exposed to direct sun. Remove wrap after first growing season. The wrap should allow some light to pass through and it should not be in direct contact with the trunk.
8. A layer of mulch, 2 to 4 inches thick, and a minimum of 6" away from the trunk, will be applied around the tree in a circle extending to twice the diameter of the root ball. **Under no circumstances should trees be volcano mulched.** Do not pile mulch directly against the tree trunk.
9. Dead, damaged, or poorly located branches will be removed using proper pruning techniques.
10. All bare root trees (and balled and burlap trees if in exposed, windy areas) will be staked to keep them upright for one growing season. All staking materials **MUST** be removed from the tree the year after planting.
  - a. When staking, use flat tree support strapping or grommated straps rather than ropes, wires, or hose segments against the trunk. The straps spread the pressure over a wider area, reducing the potential for bark damage. Straps should lie flat against the trunk and should not be bunched up or twisted. Two or three straps are routinely used in tree staking.
11. Thoroughly water the tree and the entire mulch area. A long slow soak is best. Water should be applied weekly or as needed when natural precipitation is under 1".

### **Tree Maintenance**

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Trees should be maintained for a minimum of three years to insure survival. Tree maintenance is particularly important through the growing season, generally April through October. Watering is especially important and must be planned.

1. Trees must have protection and maintenance in place that meets or exceeds the ANSI A300 Standards for Tree Care Operations standards.
2. Trees will be inspected every 6 months to evaluate general health and disease and insect problems.
3. Treat disease and insect problems as needed to maintain tree health.
4. Water during the growing season. When watering, plan five gallons of water plus five gallons for every additional diameter inch of the tree trunk per week. For example, if a tree has a trunk diameter of 2 inches, provide 15 gallons of water slowly over the root zone.
5. Trees will be pruned as needed to remove dead, damaged, or poorly located limbs using accepted practices of industry (ANSI A300 – 2017 Pruning for Tree Care Operations – Tree, Shrub, and other Woody Plant Maintenance Standard Practices).
6. Trees will be fertilized as needed. Do not fertilize during the first two or three growing seasons, and then, only if the tree shows signs of deficiency confirmed by a test done by a soils lab.

### **Important Planting Notes**

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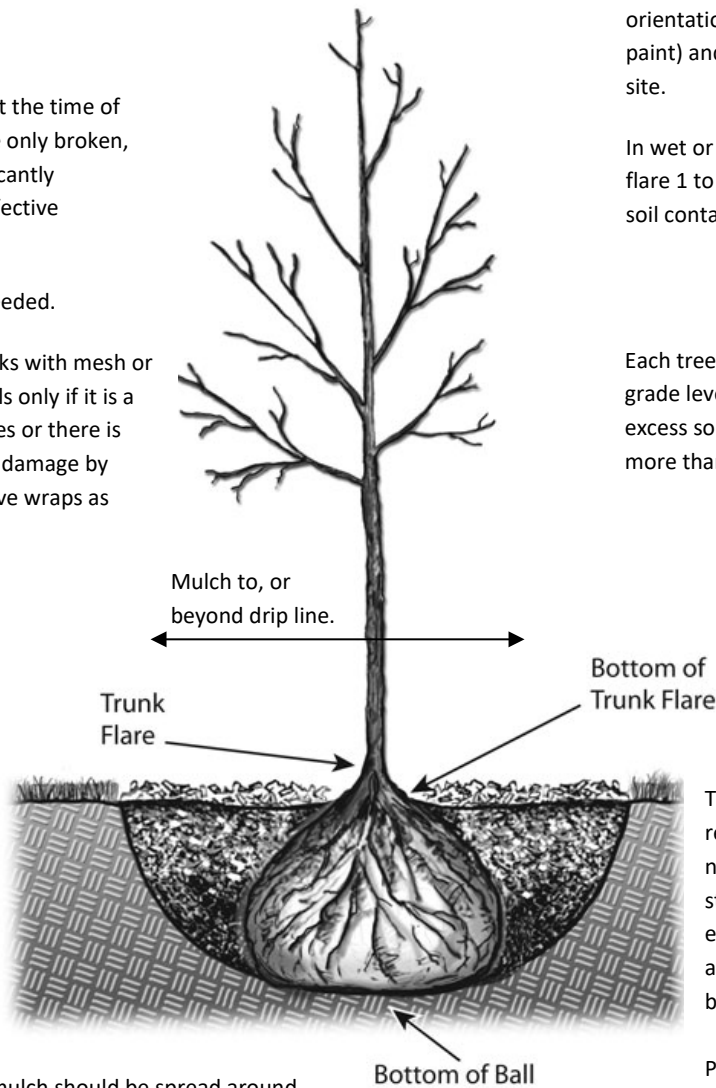
- The best soil amendment for successful planting is water. Research has shown **no measureable benefit** to using other soil amendments (Chalker-Scott, 2009).
- Place no soil over the root flare at planting. Deep planting kills trees.

## Tree Planting Guidelines for Balled & Burlap Stock

Limit pruning at the time of planting. Prune only broken, dead, or significantly structurally defective branches.

Stake only if needed.

Wrap tree trunks with mesh or screen materials only if it is a thin bark species or there is threat of trunk damage by animals. Remove wraps as appropriate.



2 -4 inches of mulch should be spread around the tree to or beyond the drip line. Do not place mulch in contact with the tree trunk. Maintain the mulch weed-free from a minimum of 3 years after planting.

Whenever possible, determine the nursery orientation of the tree (sometimes marked with paint) and orient the tree similarly at the planting site.

In wet or slowly draining areas, position the root flare 1 to 2 inches above grade, and insure good soil contact for radial roots at the edge of the

Each tree must be planted so that the trunk flare is at grade level. Do not cover the top of the root ball with excess soil. First main lateral root should be found no more than inches below grade.

To locate the trunk, or root, flare, find the first main lateral root and plant the tree with that first root at or no more than 1 inch below grade.

The burlap and wire basket will be completely removed from the upper ½ of the root ball, or as needed to prevent obstruction of the primary structural roots of the tree. Removal of the entire basket and burlap is acceptable but stakes and ties are recommended when the entire basket is removed.

Place root ball on unexcavated or tamped soil.

Gently tamp soil around root ball base firmly with foot pressure so that root ball does not shift and any air gaps are removed.



*American National Standards Institute (ANSI) A300 (Part 6) – 2012 Transplanting for Tree Care Operations – Tree, Shrub, and other Woody Plant Maintenance Standard Practices (Transplanting)*

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## Addendum B: Street Tree Inventory Requirements

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1. The following list contains the **minimum** requirements for street tree inventories funded with state and/or federal funds. This information should be given to anyone working on, advising, or bidding on your inventory project.

### **Mandatory Inventory data fields:**

- Number/Code
- GPS Position Coordinates (in a format compatible for GIS mapping tools)
- Street Name
- Address
- Genus & Species
- i-Tree Species Code (found at [www.itreetools.org](http://www.itreetools.org))
- Diameter at Breast Height (DBH)
- Land Use
- Site Type
- Tree Condition
- Maintenance Needs
- Maintenance Priority
- Sidewalk Damage
- Utility Conflicts

*\*More data fields may be added but none of the above fields may be omitted*

### **Non-mandatory data fields (strongly encouraged)**

- Plantable Spaces (by tree size)
  - Risk Tree Assessment (level 1 or above)
2. Once the data are collected, they must be analyzed using i-Tree. i-Tree is a suite of analysis tools that are free and can be downloaded at [www.itreetools.org](http://www.itreetools.org).
  3. The analysis reports should be completed using i-Tree Eco. Reports should include but are not limited to:
    - % individuals by species
    - % benefit by species
    - % age class
    - Carbon sequestered by species
    - Energy conservation by species
    - Air pollution reduction by species
    - Property values by species
    - The economic values associated with each analysis above
  4. If a consultant has been hired for the inventory he/she/they should aid the city in interpretation of the data and to develop a management or, at minimum, a prioritized work plan from the inventory.

5. Once the project is in process, a list of trees inventoried to date should accompany each Interim Report or Reimbursement Request.
6. Once the project is complete the following reports must be made available to the CUF office\* AND to the municipality in which the data was collected:
  - a. The complete inventory in Excel
  - b. Any ArcGIS shape/point data layers produced as part of the project
  - c. An executive summary of the results (usually written by the consultant)
  - d. A species list breakdown
  - e. A condition list breakdown
  - f. A recommended removal list breakdown
  - g. A maintenance list breakdown
  - h. A list of vacant tree spaces for S, M, and L trees
  - i. Lists and reports generated in i-Tree analysis program applications. These lists will include:
    - Pie or bar charts with the top species
    - The age balance
    - Replacement value
    - Ecosystem services values
      - Energy conservation
      - Carbon sequestration
      - Air quality
      - Stormwater interception
      - Economic/social benefits

*\*All reports should be provided to CUF Staff on a CD, flashdrive, or as email attachments. A secure online dropbox will be available for Subgrantees with large data or image files. All submissions will also be made available to university researchers and the USDA Forest Service (the source of CUFA funds) upon request.*

7. The project will be introduced to your community in a public forum such as a council or advisory board meeting, a news release, news story, and/or digital media (web page, social media, virtual meeting recording, webinar) detailing the inventory process, its results, and the management plan for future action. You **must provide** IDNR-CUF with copies or other evidence of this public engagement.
8. IDNR Community and Urban Forestry and the US Forest Service will be identified as a funding source on any published material (including online publication). Logos will be provided upon request and should include IDNR and USFS review and approval.
9. Only after all reports, datasets, and required closeout paperwork are received at the CUF office will final reimbursement be issued to the Applicant via direct deposit in the bank account registered at the Indiana State Supplier Portal.



## Glossary of Terms

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Definitions listed below are specific to this document and may differ from other publications.

**ANSI A300 - Standards for Tree Care Operations:** Requirements and recommendations for accepted tree care practices and guidelines for writing work specifications written by the American National Standards Institute (ANSI). ANSI A300 standards unify and take authoritative precedence over all previously existing tree care industry standards in the USA.

**ANSI Z60.1 – 2014 American Standard for Nursery Stock:** This manual sets forth size standards for the different categories of nursery stock. It is used as a guide for buying and selling plant stock. Size guidelines are based on the relationship of caliper/height/root spread and are specific to type of nursery stock. A copy of the manual is available [online](#).

**Administrative Time:** Administrative time can include project manager's wage during time spent on the grant project, after the grant start date, and used as in-kind match. Proof of hourly rate must be provided in reimbursement paperwork. Administrative time can include, but is not limited to: time spent on paperwork for the grant, onsite time during planting, tree inspections, etc. The administrative time is applicable to any employee or person spending time on grant project paperwork.

**Adventitious Roots:** Secondary roots that are formed on root or trunk wood. These roots are not the primary structural roots of the tree and normally form from the tree being planted too deeply, or top fertilized during production.

**Bid:** Ask the provider of the service or product to tell you how much they would do the project or service for with the understanding that you are asking other people to bid on the project as well.

**DBH:** diameter in inches at breast height or 4.5' from soil surface.

**Caliper:** In the landscape or nursery trade, this is the diameter of a tree, measured at a point 6 inches above the ground line if the resulting measurement is no more than 4 inches.

**Certified Arborist:** An individual who has achieved a level of knowledge in the art and science of tree care through experience and by passing a comprehensive examination. Certified Arborists must also continue their education to maintain their certification.

**Hard dollar:** cash, as opposed to a benefit, claim, deductible, discount, interest, or promise; may also be called hard money.

**Hardiness:** a plant's ability to withstand an average minimum temperature. Other influencing factors include: soil type, moisture, drainage, humidity, and exposure to sun and wind.

**High-quality Nursery Stock:** Trees that are grown and obtained from a licensed nursery that are: typical of their species or variety and of suitable hardiness for Indiana. They shall have self-supporting, straight trunks and strong central leaders. They shall be free from injury, to include: scrapes, wounds, and improper pruning cuts. They shall also be free from disease, insects, or other infestations. Containerized trees shall show no signs of girdling. When in leaf, foliage shall be full and vigorous. ([See ANSI Z60.1-2014 American Standard for Nursery Stock for more details](#))

**In-kind:** Payment made in the form of goods and services, rather than cash. See also: *Soft match*.

**Must:** For the purposes of this publication a mandatory requirement.

**Ordinance:** An authoritative decree or law; *especially*, a municipal regulation.

**Park Grade:** These trees are lower quality trees. They may have minor trunk damage, poor form, or other obvious defects. Their price is generally lower; however buyers should beware of the problems that are associated with their defects.

**Quote:** Ask the provider of the service or product to tell you how much they would do the project or service for with the understanding that you aren't asking other people to "bid" on the same project.

**Qualified professional:** An ISA Certified Arborist, IDNR CUF staff, licensed and certified private consulting arborist or organization.

**Root flare:** the portion to the tree where the trunk widens at the base as it transitions to the **root** system as identified by first primary lateral root. Small fibrous roots or adventitious roots are not considered the first primary lateral and should be removed. This **flare** occurs at the natural grade of the soil in naturally occurring trees. It is of critical importance that this level be maintained.

**Should:** For the purpose of this publication, an advisory recommendation.

**Soft match:** May consist of services, equipment, or products contributed to the project. See also: *In-kind*.

**Subgrantee:** The entity receiving a CUFA grant and carrying out the grant project.

**Volcano Mulch:** An improper mulching technique where mulch is piled high against the trunk of a tree.

**Whip:** A very thin shoot with no lateral branches of a woody plant.