

Indiana Department of Natural Resources, Division of Forestry –  
Community and Urban Forestry Program



# Urban Forestry Assistance Grant 2015.

## Grant Guidelines

*This grant program made possible by a grant awarded to IDNR, Division of Forestry – Community and Urban Forestry Program by the USDA Forest Service Northeastern Area*



### Mail applications to:

IDNR, Community & Urban Forestry  
ATTN: CUF Coordinator  
402 W. Washington St., W296  
Indianapolis, IN 46204

***Faxed and Emailed applications and forms will not be accepted.***

**Grant Deadline: October 2, 2015**

**Award Announcement: Fall 2015**

***Note: Successful applicants for the Urban Tree Recovery and Environmental Enhancement U-TREE grant awarded in 2014/2015 are NOT eligible to apply.***

## Introduction

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Urban area expansion and inner-city decline is a national problem that continues to impact basic ecological functions essential to a healthy and productive society. Healthy trees and forests in urban areas contribute to improved air and water quality, watershed function, energy conservation, physical and social well-being. The quality of life in cities and towns will be enhanced by effective state programs that foster cooperative efforts to plan for, plant, protect, and maintain community trees, forests, and related natural resources.

The Indiana Department of Natural Resources (IDNR), Division of Forestry, Community & Urban Forestry (CUF) program, and the US Forest Service Northeastern Area sponsor the Community and Urban Forestry Assistance (CUFA) Grant Program.

*The U.S. Department of Agriculture (USDA) prohibits discrimination against its customers, employees, and applicants for employment on the basis of race, color, national origin, age, disability, sex, gender identity, religion, reprisal, and where applicable, political beliefs, marital status, familial or parental status, sexual orientation, or all or part of an individual's income is derived from any public assistance program, or protected genetic information in employment or in any program or activity conducted or funded by the Department. (Not all prohibited bases will apply to all programs and/or employment activities.).*

## Purpose

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The objective of this funding opportunity is to inventory, plan, evaluate, educate, and plant trees. 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, publications, signage, etc. to encourage comprehensive urban forest management and better public understanding of urban forestry topics.

This program has many goals related to healthy trees and communities mitigating emerald ash borer (EAB), reducing the effects of storm events, mitigation of environmental pollutants, and promoting economic recovery are examples. Additional goals include:

1. To ensure that urban forests provide communities with a variety of ecosystem services such as clean air and water, increased property values, reduced erosion and stormwater runoff, wildlife habitat, as well as moderate temperatures, lessened energy demands, and offer year-round enjoyment;
2. To restore diminished community tree canopy;
3. To improve watershed health;
4. To enhance the quality of life in participating cities, villages, and townships;
5. To promote urban forestry benefits through the proper planting and care of trees;
6. To strengthen and support existing comprehensive community tree care programs;
7. To contract with local governments for the removal of ash trees and the purchase and planting of non-host EAB trees on land owned or controlled by local governments;
8. To diversify urban forests for long-term sustainability and resistance to future pests;

9. To promote the Indiana nursery industry through the sale of replacement stock and to promote Indiana arboriculture and landscape industries through management planning, tree removal, and installation;
10. To preemptively reduce a community's ash or other susceptible host populations creating a more diverse community forest, thus lessening the economic burden – the inevitable consequence of an EAB infestation; and potential losses due to ALB infestation.
11. To promote risk management within EAB infested, and soon-to-be infested, communities by removing ash trees.

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

### **State Sub-Grant (Challenge Grant) – National Guidelines**

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States are encouraged to offer sub-grants that involve partnerships with local governments and non-profit 501 (c)(3) organizations for the purpose of establishing effective community and urban forestry programs. Where state programs provide funding of grants, the following requirements must be met:

1. States will establish criteria and comply with CUF 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 CUF 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. Sub grantees are required to adhere to all Federal rules and guidelines of the State pursuant to this program.

*Note\* Projects must align with all guidelines that apply to their proposed project.*

### **National Measures**

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A community must show that they are moving toward accomplishing the following national performance measures through 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:

- 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.

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 the urban forest resource and advance the community's CUF program.

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; and
4. Advocacy/Advisory Organization: The community has local citizens groups which serve as a catalyst for active local urban forest resource management within the community.

### State Grant Guidelines

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1. General Grant Requirements:
  - a. Projects must be on public lands or in public right-of-ways.
  - b. All projects require a 1-to-1 match. This match must be shown in the application.
  - c. To be eligible for a grant, applicants must be 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.
    - 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.
  - d. An applicant may submit only one application. Only one application PER community will be awarded. It will work to applicant's advantage to work *with* non-profits and government entities within their community or county to expand the scope of their project.
  - e. 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.**
2. This grant has six specific sections (criteria) and funding limitations. All grant funds must be matched by the applicant on a reimbursable basis. The community must document all expenses.
  - a. **Tree Inventory/Assessment (\$2,000 - \$15,000)**: 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 (\$2,000 - \$5,000):** 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 (\$2,000 - \$10,000):** 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 (\$2,000 - \$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. **At least 90% of the trees must be species native to Indiana.** To receive reimbursement, the standards in **Addendum A - Minimum Tree Planting Standards** must be met.
- e. **Media Awareness Events (\$2,000 - \$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 (\$2,000 - \$15,000):** This category may be used to fund such activities as the development and implementation of a community website/webpage on the community website, 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 put forward and 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 insure that they are properly documented. The following guidelines will assist you in correctly planning your project costs. Documentation of expenditures is required for reimbursements and when funded projects are completed.

1. Grantees must save copies of invoices, receipts, purchase orders, claim vouchers, or cancelled checks (front and back) to document all expenditures of grant money and match money.
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 Grant Administrator.
3. All project expenditures must occur during the project period (**signed agreement date through June 30, 2017**).

4. For each budget item expense over \$3,000, the grantee is required to get three quotes before selecting a contractor and **MUST submit that information to CUF prior to selection**. The grantee must document the quotes in writing and list the contractor, address, phone number, and the dollar amount. *If the lowest quote is not chosen, the grantee must explain why.*
5. Use of grant money for food purchases is ineligible as a grant cost or match.
6. In-kind match can also be used according to the following guidelines: in-kind services, labor, and administrative time up to 10% of total grant amount, which will be used as part of your match, should be valued at the employee's wage rate. Fringe benefits paid to the employee may also be included for the hours worked (this is usually determined by the employer as a percentage of salary). Labor from federally funded employees cannot be used as part of the in-kind match. All in-kind services must be documented as the work is done. Any wages used as part of the grant are in-kind match.
7. Donation and In-Kind Value for Volunteers:
  - a. 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).
  - b. Adults: The wage rate for adults who serve on urban forestry non-profit, 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.
  - c. Youth Volunteers:
    - Ages 13-18: \$7.25 per hour (Indiana minimum wage rate)
    - Ages 7-12: \$4.00 per hour
    - Ages under 7: \$2.00 per hour
  - d. Skilled labor should be valued at the donors 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 trade. All donated labor used on a project must be documented as the work is done.
  - e. 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.
  - f. 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. The business mileage rate is 57 cents per mile. Find current mileage rates at: <http://www.irs.gov/> .  
Statute sets volunteer mileage rate at 14 cents per mile.
  - g. To determine value of equipment usage, obtain a scale of hourly rental rates on letterhead from a local rental company which rents similar equipment. In-kind equipment can also be valued at the rate used internally by that agency. Vehicles and equipment purchased with federal money CANNOT be used as part of the match.

## Grant Amounts

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The minimum grant amount for application is \$2,000 and the maximum grant amount for an applicant cannot exceed \$20,000.

### **Local Match**

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Grants awarded to an applicant must be **equally matched**. Match can be all cash, all in-kind, or a mix of both. *It is important to 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
3. In-kind donations of labor; consultant discount fees; use of equipment to uptake data; nursery discounts and donations; heavy equipment use; tree planting; tree removals; volunteer labor; etc.

*Grantees must show an equal match when claiming reimbursements. Reimbursement requests must be accompanied by proof of payment AND MATCH.*

### **State Review, Evaluation, and Awarding of Applications and Grants Process**

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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 2015 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 the award agreement is approved and signed by the IDNR. You will be emailed your official start Date.

**The project must be completed by June 30, 2017. Expenses incurred prior to the signed contract agreement, or after the deadline for completion, are not eligible for inclusion in the project.**

### **Receipt of Grant Payments**

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Grant money will be received by the grantee on a reimbursement basis. This means that ***the grantee must make expenditures and then submit proof of payment for reimbursement.*** 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 grantee and all parties have signed the State Grant Agreement.

*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**. Grantees must submit final documentation and request final payment within 60 days of final project deadline (June 30, 2017 Projects end; August 30, 2017 – reports due). Once documentation has been recorded and verified and compiled it will be submitted for payment.*

### Preparing a Grant Application

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

IDNR Division of Forestry CUF  
402 W. Washington St., W296  
Indianapolis, IN 46204  
PH: 317-234-6568  
E-mail: [ctauscher@dnr.in.gov](mailto:ctauscher@dnr.in.gov)

### Application Guidelines

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- Three (3) copies of the application, a minimum of one (1) with original signatures, must be submitted to the IDNR Division of Forestry CUF at the above address either hand-delivered or **postmarked by October 2, 2015**.
- Emailed or faxed applications will not be reviewed.
- Applications must be typed and printed on 8 ½ x11 inch paper and fastened by staple or paperclip. THE ENTIRE GRANT APPLICATION MUST BE TYPED – NOT HANDWRITTEN. **We will NOT review applications that are handwritten or submitted in binders/folders.**
- Comment forms or other application addendum documentation will not be accepted after submission of the grant application.



## Completing Your Grant Application

Follow the steps below in completing your grant application.

1. **Application Form:** Complete the grant application form (State form [55857](#)). This form requires basic information about the project, applicant, and contact persons. In addition, the Narrative, Budget and Timeline should be included in the submission of this form.
2. **Narrative:** The narrative should address each of the questions below (see *Narrative Questions*). Please letter your responses to correspond with each question. Keep each response concise. The entire narrative should not exceed 4 pages. There is an overall set of questions that must be answered, followed by specific project questions. It is recommended to copy and paste each question from the guidelines and answer in this section. Each narrative point for your desired project must be discussed in this section. If it is not applicable, then, answer NA for that point. The Narrative should be included in the application and labeled.

*(Example: If you intend to complete a tree inventory and tree planting with grant funds, 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 in 8 ½ x11 inch format (11x17 folded in half is acceptable). **No** three-ring binders, engineering plans, large maps, or special folders please.

3. **Budget:** Prepare a detailed itemized budget, which describes the expenditures of grant money and the applicant's match for each part of the project. Please use the format shown below. Please complete the budget in Excel an example file is provided. Points will be deducted for budgets with inaccurate arithmetic or overly broad budget items. If needed, please include a **Budget Explanation** if information is not addressed in the project narrative include any rate or price estimate explanations necessary for a clear budget. The budget should be included in the application and labeled.

### Example Itemized Budget

Item	Grant Money <sup>1</sup>	Match Money <sup>2</sup>	In-kind Match	Total \$
<b>Administrative Personnel Costs</b>				
Staff Forester/Arborist (21 hours)	\$ -	\$ -	\$ 845	\$ 845
Public Works Director (5 hours)	\$ -	\$ -	\$ 225	\$ 225
<i>Sub Total</i>	\$ -	\$ -	\$ 1,070	\$ 1,070
<b>Tree Inventory</b>				
Contractor or Internal Cost to Inventory trees (estimated \$5 per tree)	\$ 10,000	\$ 6,000	\$ 4,000	\$ 20,000
<i>Sub Total</i>	\$ 10,000	\$ 6,000	\$ 4,000	\$ 20,000
<b>Tree Removal</b>				
Removal of 20 Trees @ \$400 per tree	\$ -	\$ 7,600	\$ -	\$ 7,600
<i>Sub Total</i>	\$ -	\$ 7,600	\$ -	\$ 7,600

**Tree Planting**

Tree Purchase (50 @ \$250)	\$ 10,000	\$ 500	\$ -	\$ 10,500
Contractor or Internal Cost to Plant (estimated at \$45 per hour)	\$ -	\$ 6,000	\$ -	\$ 6,000
Mulch, Soil, Etc.	\$ -	\$ -	\$ 330	\$ 330
<i>Sub Total</i>	\$ 10,000	\$ 6,500	\$ 330	\$ 16,830
<b>GRAND TOTAL</b>	<b>\$ 20,000</b>	<b>\$ 20,100</b>	<b>\$ 5,400</b>	<b>\$ 45,500</b>

1: Must not exceed 50% of the total project cost.

2: May not include any federal funds.

4. **Timeline:** Provide a detailed project timeline including project execution items and accomplishment reporting as well as a project end date. **Projects must be completed by June 30, 2017.** Any application with a timeline end date after the project close date will **NOT** be considered. The Timeline should be included in the application and labeled.

Example Project Timeline:

Date/Month	Task
Fall 2015 (grant start date)	Bid landscape services grant for tree removal, purchase, installation, and maintenance. If not done already, complete EAB Management Plan.
January 2016	Village board approves removal contract.
June 2016	Trees are removed or replanted.
June – October 2016	Watering program to maintain new trees.
March – April 2017	Remaining trees planted – Accomplishment Reporting.
May – June 2017	Invoices to IDNR for reimbursement.
June 30, 2017	Close of Grant Project
August 30, 2017	Close of Grant Reporting/Reimbursement

5. **Public Comment Forms:** Include at least 6 public comment forms (State form [55862](#)) with a minimum of 3 agency, organization, and business representatives; and 3 from individuals, private landowners, or officials from agencies and nongovernmental organizations (NGOs) or partners which will be impacted by the project.
6. **Not-for-Profit Documentation:** Not-for-profit applicants **must** include proof of 501 (c)3 status.
7. **Copies:** Submit three (3) copies of the complete application; One (1) with original signatures. *Handwritten applications will not be accepted or evaluated.*

## Narrative Questions

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**Grants that have not addressed each of these questions will not be considered**

### 1. Community Information:

Does the community where the project will take place have:

- i. A legally designated municipal or county department or tree committee that has responsibility for the planting and maintenance of trees?
  - a. Give the name of the supervisor or board president.
  - b. Are they aware that you are applying for grant funds for an urban forestry project?
- ii. An enforceable tree ordinance in effect or language in a city legal document that protects and conserves trees on public property?
  - a. If you do not have a public tree ordinance, are there plans to draft one and try for passage? Who is spearheading this effort?
- iii. A public tree inventory?
  - a. How old is it?
  - b. Has it been used as a tool for management?
- iv. Any formal program that cares for the trees on public property
- v. A current canopy cover goal? (Rendered from a Urban Tree Canopy Assessment(UTC) or other aerial map analysis)
  - a. What is your community's canopy goal and how did you reach that goal?

### 2. Project Objectives:

What is the objective of this project and how does it address threats to Indiana's urban forests and community health?

### 3. Project Description:

How will this project be carried out? Describe the project in detail, and please explain partnerships if there are any.

- i. How does this grant meet the criteria set forth in the grant guidelines above?
- ii. Why is this project important to your community? Please include statement of need if applicable; a total of 3 bonus points may be awarded based on community need.
- iii. Has the planning for this project been coordinated with other agencies and organizations in the community? Include (6) public comment forms.

### 4. Project Coordinator(s): Give the name, title, and experience of the person who will supervise this project. (Attach resume' if needed).

- i. What is the applicant's past experience and background in urban forestry?
- ii. Does the applicant have the experience and resources to complete and maintain the project?

*Please answer the following questions as related to your proposed project.*

**If requesting funds for a **TREE INVENTORY**, please answer the following questions**

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1. Who will maintain the computerized inventory? (individual and or department)
2. Where will it be housed?
3. How often will it be updated?
4. How will it be utilized?
5. How and when will the inventory analysis be presented to the community
  - i. Who will present it?

*\*Please note that the inventory or any plans must be formally presented to the City/Town Council and to the community as a whole in a newspaper article.)*

***\* We recommend all requests for inventory funding are accompanied with at least 3 contractor quotes for inventory appended to the application if the organization is not completing the inventory themselves.***

**All inventories must have an i-Tree analysis of the data which will include a breakdown of the tree population and its ecosystem service benefits using the latest version i-Tree suite.** Inventory reports should include: development of urban tree canopy goals for the community land uses and lead to the development of a management plan based on the inventory results. i-Tree Canopy for canopy goal setting advice is available here: <http://www.itreetools.org/canopy/index.php>.

[Data Required of Inventory Projects](#)

**If requesting funds for an **URBAN FORESTRY MANAGEMENT PLAN**, please address the following questions**

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1. Does your Community have an up-to-date inventory, or are you applying for one? (A management plan may include re-inventorying, but should be based off of recent inventory data.)
2. Who will implement this plan and follow through with the tasks in the work plan? (Please list specific departments and staff.)
3. Will the management plan be developed by an urban forestry consultant or in house?
4. Will review and update of current ordinances be part of management planning work?

**If requesting funds for **TREE PLANTING**, please address the following questions**

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1. Does your Community have an up-to-date inventory?
  - i. Was the inventory data used in helping select proposed species to be planted?
2. What process did you use in selecting the planting sites?
3. What is the estimated benefit to the community?
  - i. Use the National Tree Benefit Calculator (<http://www.treebenefits.com/calculator/>) or

I –Tree Design (<https://www.itreetools.org/design.php> ) to assess potential long-term benefits of proposed tree plantings.

Please attach the following information:

- **Planting plan** to include: existing trees, proposed trees, all utilities, infrastructure, waterways, etc. known as part of the plan.
- Complete the Minimum **Work Plan Chart**

Plant/Replant Address	Planting site description	Size of planting site (i.e. 8'x8' or S,M,L)	Planting date	Plant Tree Genus	Plant Species

- **Species list**, ALL trees planted as part of this grant must follow IDNR CUF guidelines.
- A minimum of 90% of species MUST be native to Indiana. Projects using 100% native species will be looked upon favorably.

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**\*\*\* The Grant Application is a document separate and apart from these Guidelines \*\*\***

If you do not have the grant application and wish to apply for these funds, please visit <http://www.in.gov/dnr/forestry/8303.htm> where all pertinent grant forms and supplemental information are located.

## Glossary of Terms

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

- **A300 Standards for Tree Care Operations:** Requirements and recommendations for accepted tree care practices and guidelines for writing work specifications. ANSI A300 standards unify and take authoritative precedence over all previously existing tree care industry standards (in the USA). See also: *Z60.1 – 2004 American Standard for Nursery Stock (ANSI Z60.1-2004)*.
- **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.
- **Bid:** When you 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.
- **In-kind:** Payment made in the form of goods and services, rather than cash. See also: *Soft match*.
- **Must:** For the purpose of this publication, 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:** When you 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.
- **Should:** For the purpose of this publication, and advisory recommendation.
- **Soft match:** May consist of services, equipment, or products contributed to the project. See also: *In-kind*.
- **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.
- **Z60.1 – 2004 American Standard for Nursery Stock (ANSI Z60.1-2004):** 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 on the IDNR CUF website here: [http://www.in.gov/dnr/forestry/files/fo-ANSI\\_Z60\\_1\\_04.pdf](http://www.in.gov/dnr/forestry/files/fo-ANSI_Z60_1_04.pdf).

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## Addendum A: Minimum Standards for Tree Planting

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The following are minimum standards for tree planting projects as recommended by the Indiana DNR, Division of Forestry grant projects. Any tree planting project that follows these standards should see the trees grow to a mature age. If local ordinances or guidelines require more stringent standards, they should be honored.

### Planning

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1. A detailed tree planting and maintenance plan must be 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-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. 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*).
3. All trees used will be true to name. Size and grading standards will conform to the American Standard for Nursery Stock as established by the American Nurserymen's Association. At a minimum, trees must be at least 1 ½ to 3 inches DBH and a minimum of 8-feet tall for deciduous species and at least 4-feet tall for coniferous species (as defined in the American Standards Institute ANSI) publication *Z60.1 – 2004 American Standards for Nursery Stock*). Larger stock, at least 2 to 2½ -inches in DBH is preferred in high-traffic areas, such as trees planted in downtown locations. **No tree larger than 3 inches DBH will be eligible for reimbursement or used as match.** A copy of the manual is available on the IDNR CUF website here: [http://www.in.gov/dnr/forestry/files/fo-ANSI\\_Z60\\_1\\_04.pdf](http://www.in.gov/dnr/forestry/files/fo-ANSI_Z60_1_04.pdf).
  - Only high-quality nursery stock trees will be eligible for reimbursement (park-grade stock is not eligible). High-quality, for the purposes of this grant, refers to trees that are grown and obtained from a licensed nursery and that are: (1) typical of their species of variety and (2) of suitable hardiness for Indiana. They must have self-supporting, straight trunks, and strong central leaders. They must be free from injury, to include: scrapes, wounds, and **improper pruning cuts**. They must also be free from disease, insect, or other infestations. Containerized trees must show no signs of girdling. When in leaf, foliage must be full and vigorous. Whips are also excluded.
4. In caring for trees prior to planting, all precautions customary in good trade practice will be taken.



## Site Selection

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1. Trees will be located so that they do not block infrastructure such as signs and lights and they do not reduce visibility.
2. Trees will not be planted within 30 feet of an intersection or 15 feet of driveways and alleys.
3. Trees will not be planted within 10 feet of utility poles or fire hydrants.
4. 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.
5. Medium street trees (mature height between 45 feet and 30 feet) should be planted a minimum of 30 feet apart, and with a minimum of 5 feet of rooting width.
6. 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.
7. Only trees with mature heights less than 25 feet will be planted under or within 20 feet of overhead utility lines.

## Planting Standards (see diagram)

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A **qualified professional Arborist OR trained volunteer OR the project coordinator must be on site** and supervise all tree planting. This means that they **must be ON SITE when the ALL trees are installed**. 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 twice the diameter of the root system or root ball. Sides of the hole should be sloped. All holes should be slightly less deep than the rootball.
  - 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 1/3 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. **The burlap and wire basket will be removed.**
5. Backfill with existing soil if suitable. Excess soil from the hole will be removed; **leftover soil should never be placed over the root zone.** This changes the grade of the landscape and plants the tree too deep.
6. Trunk wrap is not necessary. However, a free standing 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.
7. A layer of mulch, 2 to 4 inches thick, and 4-6” away from the trunk, will be applied around the tree in a circle at twice the diameter of the root ball. **Under no circumstances should trees be volcano mulched.** Do not pile mulch directly against the tree trunk.

8. Dead, damaged, or poorly located branches will be removed using proper pruning techniques.
9. 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.
  - When staking, use flat, grommited 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.
10. Thoroughly water the tree and the entire mulch area. A long slow soak is best.

## 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 *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 10 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 (***American National Standards Institute (ANSI) A300 (Part ) – 2008 Pruning for Tree Care Operations – Tree, Shrub, and other Woody Plant Maintenance Standard Practices (Pruning)***).
6. Trees will be fertilized as needed. **Do not fertilize during the first two or three growing seasons**, and then, only if the tree needs it. This can be determined with a test done by a soils lab.

## Important Planting Notes

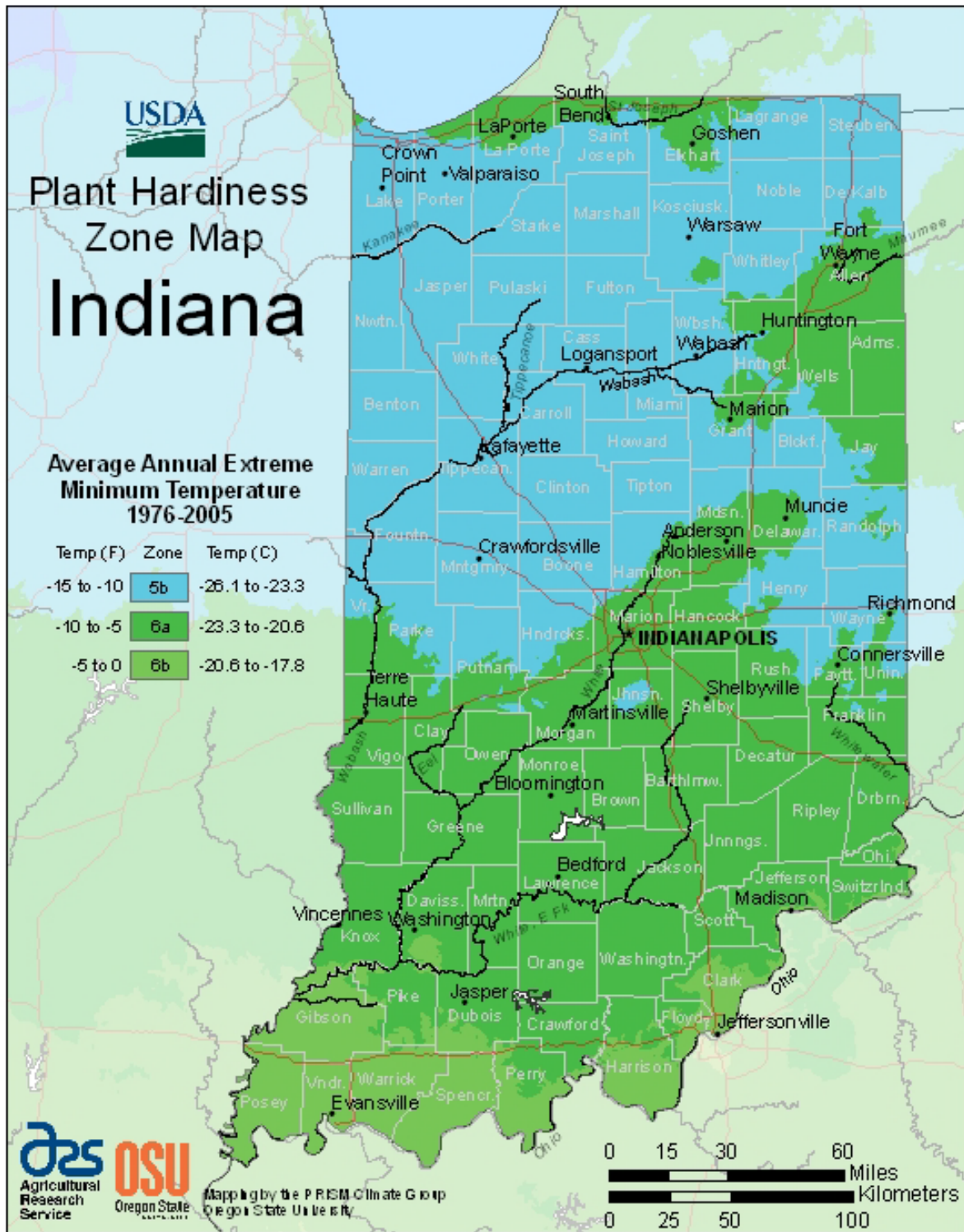
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- The best soil amendment for successful planting is water. Research has shown no measureable benefit to using other soil amendments (Chalker-Scott, Linda, 2009).
- Place no soil over the rootball at planting. Deep planting kills trees.

## Grant Funds and Match

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Grant funds may only be used to purchase landscape-grade trees. Shrubs or other ornamental plants will not qualify for funding and may not be used as match. All labor and other supplies, as well as the planting of the trees themselves, qualify as match for this grant.



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## Tree Planting Guidelines for Balled & Burlap Stock

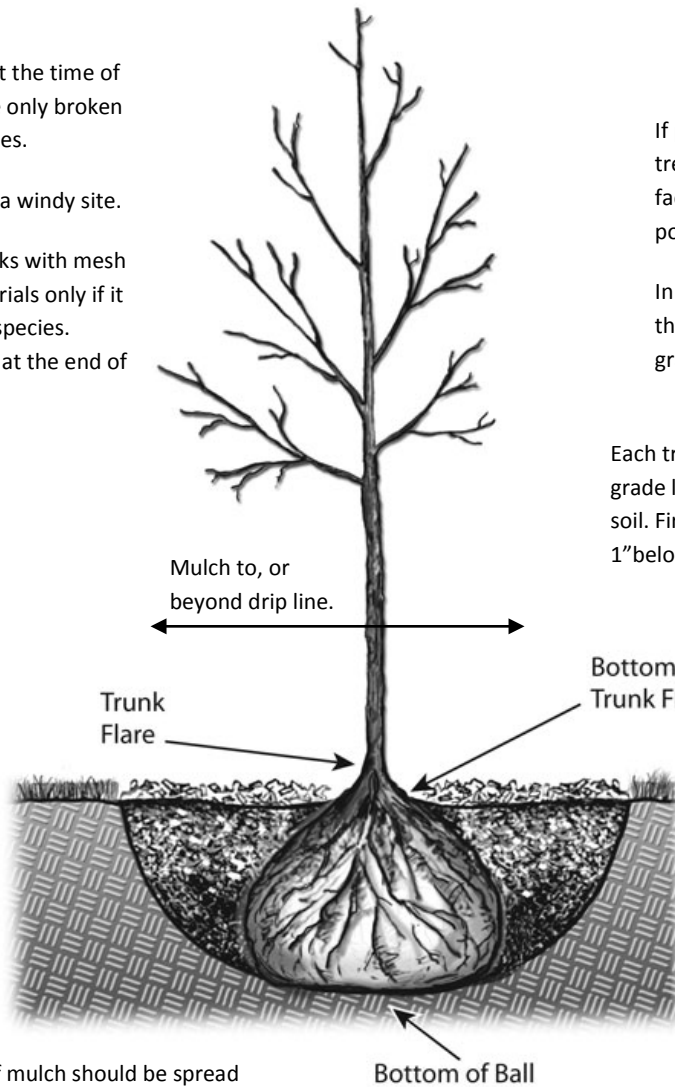
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Limit pruning at the time of planting. Prune only broken or dead branches.

Stake only if in a windy site.

Wrap tree trunks with mesh or screen materials only if it is a thick bark species.

Remove wraps at the end of winter.



If possible, mark the north side of the tree in the nursery, and rotate tree to face north at the site whenever possible.

In wet or slowly draining areas, position the root flare 1 to 2 inches above grade.

Each tree must be planted so that the trunk flare is at grade level. Do not cover the top of the root ball with soil. First main root should be found no more than 1" 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 1 inch below grade.

Remove all twine, rope, wire, and burlap from root ball.

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.

2 to 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.



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