



Trustee Meeting Agenda  
Monday, October 3, 2016, 1:00 pm

Join Skype Meeting: <https://meet.rockymountainpower-pacificpower.net/randy.miller/KG02L4K1>  
Join by phone: +1 (855) 499-5252 (toll free), Conference ID: 5415711

- 1:00 Meeting call to order and Chairman's comments Miller
- 1:05 Consent Agenda
- Minutes from 5/16/16 trustee meeting Tab 1
  - Treasurer's Report, including: Tab 2
    - August 2016 Operating Profit and Loss Report
    - July 2016 Chicago Community Trust Investment Report
  - President and CEO's Report Tab 3
  - Governance Committee Report Tab 4
  - Research & Education Committee Report Tab 5
  - Development & Communications Committee Report Tab 6
  - Liaison Committee Report Tab 7
  - Audit Committee Report Tab 8
  - Council of Representatives Report Tab 9
- 1:10 Chairs Summarize Committee Highlights (May to October 2016)
- Ray Henning, Finance Committee
  - Steve Geist, Governance Committee
  - Hallie Dozier, Research and Education Committee
  - Brian Sayers, Development and Communications Committee
  - Beau Brodbeck, Liaison Committee
  - Will Nutter, Audit Committee
  - Al West, Council of Representatives
  - J. Eric Smith, President and CEO
- 1:35 Research and Education Grant Award Votes Dozier
- Ratify prior electronic votes:
    - Horace M. Thayer Scholarship of \$2,000 to Thomas McNulty
    - Fran Ward Scholarship of \$2,000 to Allison Wilson
    - John Wright Memorial Scholarship of \$2,000 to Conor Smith
  - TREE Fund Research Fellowship Tab 10
  - Ohio Chapter ISA Education Grant Tab 11

2:00 Old Business

- |                                                    |       |
|----------------------------------------------------|-------|
| • Trustee and Committee Member Recruitment         | Geist |
| • Upcoming Grants and Scholarships                 | Smith |
| • Feasibility Study                                | Smith |
| • Review Additional Investment Vehicles            | Smith |
| • Office Lease and Staffing                        | Smith |
| • December 2016 Meeting Schedule (One Day Meeting) | Smith |

2:30 New Business

- |                                                             |        |
|-------------------------------------------------------------|--------|
| • Vote on New Auditor Contract (Engagement Letter attached) | Tab 12 |
| • Trust Agreement Review (for December 2016 Action)         | Geist  |

2:45 Executive Session



## Trustee Meeting Minutes

**Date & time of meeting:** May 16, 2016, 8:00am Central Time at The Morton Arboretum, Lisle, IL

**Attending:** Randall Miller, Chairman; Brian Sayers, Chair Elect; Steven Geist, Vice Chairman; Ray Henning, Treasurer. Trustees: Jim Barborinas, Beau Brodbeck, Hallie Dozier, Paul Fletcher, George Hudler, Geoff Kempter as proxy for Brent Asplundh, Will Nutter, Bill Schleizer, Jim Urban, Jeff Wilson, Tom Wolf. President and Chief Executive Officer: J. Eric Smith.

**Excused:** Trustees: Brent Asplundh, Barbara Fair, Roger Phelps

**Meeting call to order:** Chairman Miller called the meeting to order at 8:00am. He welcomed the board and introduced Beau Brodbeck as new Trustee and Geoff Kempter as proxy for Brent Asplundh. Chairman Miller reviewed the Initiatives, Vision, Mission and Values from the Strategic Plan and noted that a revised Strategic Plan will be required for 2018.

**Consent Agenda:** Motion was made by Trustee Geist to approve the Consent Agenda. Motion was seconded by Trustee Dozier. Discussion: None. Motion carried.

Consent Agenda items:

- Minutes from 12/08/15 Trustee Meeting
- President's Report
- Treasurer's Report
- Governance Committee Report
- Development Committee Report
- Research & Education Committee Report
- Liaison Committee Report
- Council of Representatives Report

### Research Committee:

Grant and Scholarship Awards: Committee Chair Dozier reviewed the funding recommendations made by the Research and Education Sub-Committee. Hyland Johns Grants: Bryant Scharenbroch, University of Wisconsin-Stevens Point, "A Soil Management Toolbox for Urban Trees" for \$48,583. Glynn Percival, Bartlett Tree Research Laboratory, "Can Soil Amendments Reduce Disease Severity on Trees" for \$40,000. Susan Day, Virginia Tech "Urban Forests as Stormwater Systems" for \$50,000. Kathleen Wolf, University of Washington, "Urban Forests and Human Health: Science Review & Economic Valuation" for \$36,512. Trustees Dozier and Hudler will follow up with applicants for clarification issues on applications. Trustees requested complete applications for review prior to Trustee Meetings in the future. Barb will post the ISA Research Priority Survey in the Trustee Toolbox. Motion was made by Trustee Henning to fund Scharenbroch, Percival and Day if positive responses are received for pending questions. Motion was seconded by Trustee Barborinas. Motion carried.

Suggestion was made by Trustee Urban to post research results in a blog. Trustee Phelps will be asked to assist.



Trustee Dozier reviewed the Arboriculture Education Grant funding recommendations from the Committee. Motion was made by Chair Elect Sayers to fund McCrory Gardens “Junior Arborist Camp” for \$5,000, Asheville GreenWorks for “Tree Detective Kits” for \$5,000 and The Greening of Detroit for “Our Land” for \$5,000. Motion was seconded by Trustee Barborinas. Motion carried. Trustee Dozier asked Trustees to promote TREE Fund grants and scholarships and encourage applicants.

Trustee Dozier reviewed the Robert Felix Memorial Scholarship funding recommendations: Jamilee Kempton, University of Hawaii, Daniel Hedden, California Polytechnic State University and Savannah Haines, University of Maine. Motion was made by Trustee Wolf to fund these scholarships at \$3,000 each. Motion was seconded by Trustee Barborinas. Motion carried.

Provision for Grant Overhead Allowance: Trustee Hudler reviewed his research on overhead allowance collected from universities around the country. Discussion followed. Board agreed that overhead provision should be reviewed annually, as it is evolving. President Smith and Trustee Dozier will create the RFP language for the provision. Motion was made by Trustee Hudler that the RFP for research grants will include verbiage that TREE Fund may pay maximum of 10% to cover indirect costs. Motion was amended by Geoff Kempter to: RFP for research grants will include verbiage that TREE Fund may pay 10% to cover indirect costs. Motion was seconded by Vice Chairman Geist. Motion carried.

Trustee Urban suggested identifying overhead in applicant’s budget. This suggestion will be considered as a next step.

Supplemental Summer Grant Cycle: Research Fellowship and Ohio Chapter ISA Education Grant applications will open June 1 and end September 1. Awards will be made at October Trustee Webinar. If UARF Grant RFP is approved, it will also be included in this schedule. Availability of Safe Arborist Techniques Grant was postponed by ISA until the Fall cycle.

Audit Committee: Audit Committee Chair, Will Nutter reviewed audit. A RFP will be made for audit services for 2016 audit. Going forward, Chicago Community Trust will not be the default when deciding where to place funds; board will make decisions as warranted.

Governance Committee: Motion was made by Trustee Henning to ratify the electronic vote to approve Jim Barborinas’ second term as Trustee. Motion was seconded by Trustee Nutter. Motion carried. Trustee Wilson suggested adding a TREE Fund Trustee seat for an ISA board member. Governance Chair Geist will follow up with Trustee referrals from Trustee Urban: Mike Marshall and Chet Halka as Research Committee member. Governance Committee Chair Geist reviewed the revised Liaison Committee Structure Policy. Revisions will be made to Skill Set to include *strong communicator* and *organizational skills* and add *promotion of TREE Fund brand*. Motion to accept Liaison Structure Policy with noted revisions was made by Trustee Urban and seconded by Trustee Barborinas. Motion carried. Trustee Dozier volunteered to assist Liaison Chair Brodbeck with exit interviews for outgoing Liaisons. Committee Chair Geist noted the need of a Vice Chair in 2017. He asked Committee Chairs to notify him if their committees are in need of additional members.



Development Committee: Development Committee Chair Sayers stated that the Development Committee, Finance Committee and Executive Committees had reviewed the proposed Endowment Building Campaign and made suggestions for revisions which were incorporated into the March 31 version. President and CEO J. Eric Smith reviewed the campaign with the Trustees. The consultant will make a presentation at the December Trustee Meeting. Chairman Miller made a motion to approve the Endowment Building Campaign. Motion was seconded by Treasurer Henning. Motion carried.

Old Business: None

New Business: President Smith made a request for \$10,000 to sponsor Tree Biomechanics Week. After discussion, he withdrew his request. Mark Hoenigman will be encouraged to submit a grant application for future requests. TREE Fund will be adding adjacent office space to enlarge its current space. Rent increase is under budget. Motion was made by Trustee Schleizer to treat principal of funds at Chicago Community Trust as permanently restricted. Motion was seconded by Treasurer Henning. Motion carried. President Smith was tasked with reviewing other investment vehicles. Next Trustee Meeting via webinar was scheduled for Monday, October 3 at 1:00 pm – 3:00pm Central Time. December Trustee/Liaison meeting was scheduled for Monday, December 5 with reception on Sunday evening December 4.

Meeting adjourned at 1:15pm and was followed by Executive Session.

Task	Assigned to	Due
Inquire of Percival and Day pending questions on Hyland Johns applications	Dozier and Hudler	6/10/16
Promote TREE Fund grants and scholarships and encourage applicants	Trustees	ongoing
Create language for overhead provision for RFP	Dozier and Smith	5/30/16
Contact Trustee referrals from Trustee Urban	Geist	10/3/16
Notify Governance Committee Chair Geist if committee needs additional members	Committee Chairs	ongoing
Review other investment vehicles	Smith	10/3/16

Respectfully submitted by Barbara Duke.



**Finance Committee Report**  
**Prepared by: Ray Henning, Chair**  
**Date Submitted: September 22, 2016**

**The Finance Committee is charged with the following:**

**Basic Function:** Responsible for the overall direction and control of the finances of the organization.

**Responsibilities:**

- Coordinates the preparation of the annual budget
- Makes recommendation of annual budget to the board
- Reviews monthly financial reports
- Compares actual expenses to approved budgeted expenses and discuss variances, make recommendations as necessary
- Reviews budgets of special projects and makes recommendations to the board
- Reviews on an annual basis the sources of funding for the organization
- Recommends to the board the investment of funds and reports to the board on a regular basis the condition of such investments
- Reviews annually amount of insurance coverage
- Reviews credit card procedures annually
- Reports to the board other financial matters deemed appropriate by the board

**Related Strategic Initiatives:**

Goals:

- To provide overall direction and oversight of the finances of the TREE Fund
- To understand the oversight process in order to insure the integrity of our resources
- Fiscally responsible Board of Trustees

**Outcomes:**

- A financial plan which is supportive of our strategic plan
- Availability of sufficient liquid cash to support operations
- Financial reports which are accurate, comprehensive and informative
- Deposits equal to 30% of annual estimated operating budget in a reserve account

<b>Objective</b>	<b>Who</b>	<b>What</b>	<b>By When</b>	<b>Resources needed</b>
Prepare a 3-year financial forecast				
Identify a mechanism for building the reserve account.		\$180K	12/31/17	
Budget approved annually	Staff Committee Chair	Develop annual budget to support strategic initiatives	Annual meeting in December	trustee time executive staff time, bookkeeper time, committees' budgets, conference call \$
Financial recommendations at each board meeting	Treasurer	Present treasurer report at each board meeting and make recommendations for approval or revision as needed.	May August Dec. 30	trustee time, staff time,
Monitor CCT performance compliance w/policy	Full committee		May	investment policy, endowment policy Trustee Time
Report on Named Funds	President CEO	Purpose; Financial Goal; date for initial disbursement	May Board meeting	Balance Sheet Fund establishment documents Executive time Staff time

**Meetings:**

**Date:** May 26, 2016

**Participants:** Ray Henning, Terry McGonegle, J. Eric Smith, Tom Wolf

**Topics and actions:** Reviewed the April, 2016 financial statements. The Committee was updated on the May 2016 Board Meeting results. In the absence of our bookkeeper, business consulting services and interim bookkeeping is being provided by a non-profit consulting company. They will also be working on audit RFP and integrating GL with development database.

**Date:** July 1, 2016

**Participants:** Ray Henning; Rick Joyce; Terry McGonegle; J. Eric Smith; Tom Wolf

**Topics and actions:** Reviewed the April CCT Statement and the May financial statements. Insurance Policy review indicated need for increased coverage via umbrella policies for Corporate and Tour insurance. Committee agreed to separate Corporate and Tour insurance and approved adding \$2MM umbrella to corporate general insurance for \$650/year. Additional research is to be done on Tour insurance for August, 2016 Committee meeting. COI's by contractors to be verified.

**Date:** August 15, 2016

**Participants:** Ray Henning; Terry McGonegle; Bill Schleizer (via phone); J. Eric Smith; Tom Wolf

**Topics and actions:** Reviewed the June CCT Statement and the July financial statements. As a result of the Insurance Policy review the Committee approved adding \$1.0 million umbrella policy specific to Tour des Trees at price of approximately \$1,500 per year. This supplements existing Tour liability (\$1.0 million) and casualty (\$100,000) policies. Staff is developing standard terms and conditions for Certificates of Insurance for all TREE Fund vendors, and is currently working to make sure that all current vendors have valid and compliant certificates where applicable.

**Date:** September 20, 2016

**Participants:** Ray Henning; Terry McGonegle; Bill Schleizer; J. Eric Smith; Tom Wolf

**Topics and actions:** Reviewed the July CCT Statement and the August financial statements. August was a strong month. It appears that once the UAA check for \$240K is received, the revenue goal will have been met with three months remaining to year end. ISA Conference event came in under budget and over projected income; new event was a successful model. An offer has been made and accepted for the vacant bookkeeper position. The position will be filled as an independent contractor working in the office approximately 24 hours per week. The agreement for services will be through December 2017.

**Next Meeting Date:** October 17, 2016





## Finance Committee Meeting Minutes

**Date & time of meeting:** May 26, 2016, 1:00pm Central Time via conference call

**Attending:** Ray Henning, Treasurer; Terry McGonegle; J. Eric Smith; Tom Wolf

**Excused:** Rick Joyce, Bill Schleizer

Ray Henning called the meeting to order at 1:05pm.

Confirm Minutes from April 27, 2016 meeting: Committee members were asked whether they had any edits to the minutes. None were cited. Motion was made by Tom Wolf to approve the minutes. Motion was seconded by Terry McGonegle. Motion carried.

CCT March Statement: Eric reiterated that the CCT distribution check for ~\$50,000 was received in error from CCT in March and was returned in April. This money was added to our spending reserve and may be used to fund 2017 grants. All 2016 grants will be paid from operating surplus.

Investments Managed by CCT: Per board vote, the funds previously classified as Temporarily Restricted and Unrestricted will be hereafter classified as Permanently Restricted. This does not include the spending reserve.

April Financial Statements: Eric reviewed P&L and Balance Sheet. Payments sent to CCT have been added to the end of the P&L. Future Balance Sheets will show the investments at CCT as Permanently Restricted.

Grants Payable: Awards were made at May board meeting for ~\$163,000.

Old Business: Tasks from April 27 meeting were reviewed. Finance Committee meeting schedule will be reviewed in August. Eric is in the process of evaluating the benefits of having the endowment at CCT. Eric is working on RFP for audit services. Eric reviewed board meeting topics: Board approved 10% cap on overhead for research grants; updated language for RFPs is in progress; Board approved funding for three Hyland Johns Grants, three Arboriculture Education Grants and three Felix Scholarships; TREE Fund sent \$2500 to ISA for Tree Biomechanics Week sponsorship and requested they submit a grant application for future requests of \$10,000. Barb will add a tickler to her calendar to remind them.

New Business: Business consulting services and interim bookkeeping is being provided by a non-profit consulting company. They will also be working on audit RFP and integrating GL with development database.

Motion to adjourn was made by Tom Wolf and seconded by Terry McGonegle. Motion carried. Meeting adjourned at 1:35pm Central Time. Next meeting has been scheduled on July 1 at 10am Central Time.

Task		Assigned to		Due date
Re-evaluate Finance Committee meeting schedule		Committee		August 2016
Evaluate benefits of having endowment at CCT		Eric		July 1, 2016
Explore options other than CCT to hold funds		Eric		July 1, 2016
Issue RFP for audit services		Eric		July 1, 2016



## Finance Committee Meeting Minutes

**Date & time of meeting:** July 1, 2016, 10:00am Central Time via conference call

**Attending:** Ray Henning, Treasurer; Rick Joyce, Terry McGonegle; J. Eric Smith; Tom Wolf

**Excused:** Bill Schleizer

Treasurer Henning called the meeting to order at 10:05pm.

Confirm Minutes from May 26, 2016 meeting: Committee members were asked whether they had any edits to the minutes. Tom Wolf noted the Finance Committee Meeting in Fort Worth, Texas which was added to Old Business. Motion was made by Rick Joyce to approve the minutes. Motion was seconded by Terry McGonegle. Motion carried.

CCT April Statement: Eric reviewed the April Statement: UARF money will be added to CCT pool. The Board will vote whether money for any new programs will go to CCT or a traditional investment fund. Eric will research alternatives.

Investments Managed by CCT: Beginning with June report, all funds at CCT will be classified at Permanently Restricted, per Board vote. "Other Unrestricted Funds" will be now be shown as "Unallocated Funds."

May Financial Statements: Income for Sponsored Grants/Scholarships: \$200K from UAA was budgeted to be received in May; however, it has been delayed until July. Expenses for Grants and Contracts: Spring grant cycle contacts were not received until June and therefore, payables do not appear on P&L. Professional Fees were high due to contracted accounting services. Tour expenses increase is due to flow issues.

Grants Payable: Spring grant cycle awards will appear on June report, as contracts were not received until June. This report reflects active grants with outstanding payments.

Old Business: Insurance Policy review: need increased coverage via umbrella policies for Corporate and Tour insurance. COI's are required from contractors. There is no current policy; Eric will investigate. Tour is currently \$100K per incident. \$1MM umbrella with current broker would be \$3500/year. Corporate umbrella general liability for \$2MM would cost \$650/year. Rick recommends breaking Tour out as a separate fundraising entity. Motion was made by Rick Joyce to add \$2MM umbrella to corporate general insurance for \$650/year. Motion was seconded by Terry McGonegle. Motion carried. Eric will proceed with policy. Since increase in coverage is not in current budget, Eric needed to discuss with Finance Committee. Eric will research other organization's coverage for bike rides/races. Eric will email Paul Wood's insurance policy to Committee. Eric will put together language for policy with contractor

requirements, indemnification agreement and additional insured requirements for board approval at October webinar. Decision on Tour umbrella will be made at August 15 meeting in Fort Worth.

Next Finance Committee meeting will be in Fort Worth, Texas on August 15 from 11am-noon.

New Business: Eric will send June financials to Committee with talking points. Eric will inquire about variance in cost of Tour insurance based upon number of riders.

Motion to adjourn was made by Rick Joyce and seconded by all. Motion carried. Meeting adjourned at 11:08am Central Time. Next meeting has been scheduled on August 15 at 11:00am local time in Fort Worth, Texas Convention Center.

Task	Assigned to	Due date
Research alternatives to endowment fund at CCT	Eric	8/15/16
Investigate policy relating to COI's from contractors	Eric	8/15/16
Acquire Corporate general insurance umbrella for \$2MM	Eric	8/15/16
Research bike ride/race insurance coverage for other organizations	Eric	8/15/16
Email Paul Wood's insurance policy to Finance Committee	Eric	8/15/16
Prepare language for policy with contractor requirements, indemnification agreement and additional insured requirements for board approval at October webinar.	Eric	8/15/16
Agenda for August 15, 2016 Finance Committee Meeting: Decision on Tour umbrella	Ray	8/15/16
Send June financials to Finance Committee with talking points	Eric	8/15/16
Inquire about variance in cost of Tour insurance based upon number of riders	Eric	8/15/16



## Finance Committee Meeting Minutes

**Date & time of meeting:** August 15, 2016, 11:00am Central Time at Fort Worth Convention Center

**Attending:** Ray Henning, Treasurer; Rick Joyce; Terry McGonegle; Bill Schleizer (via phone); J. Eric Smith; Tom Wolf

**Excused:** Rick Joyce

Call To Order: Treasurer Henning called the meeting to order at 11:05am.

Confirm Minutes from July 1, 2016 meeting: Mr. McGonegle moved to approve minutes, and with a second from Mr. Wolf and no discussion, they were approved unanimously.

July 2016 Financial Statements: Mr. Smith summarized the various operating statements. Overall, we are doing better than budget year-to-date on both revenues and net income. Expenses are higher than budgeted year-to-date, primarily due to contracted professional fees associated with accounting, management, and real estate consultants engaged to support accounting operations, as well as needed system improvements and documentation. This work should taper off by October if we are able to hire a bookkeeper as planned. The Feasibility Study contractor (CCS) will be engaged and paid in full before year end, so this line item will continue to increase over budget. Despite this, Mr. Smith is very comfortable that revenues will increase by a greater amount and budget will be met or exceeded overall. Mr. McGonegle asked about the Service Fees line and Mr. Smith noted it is tied to online gift processing, and that he will look into why it is higher than expected. Mr. Smith noted that we have transferred over \$300,000 to CCT, and will be sending more at end of August. He also noted that we have not yet received the expected \$200,000+ from UAA, but that Phil Charlton indicated they are close to sending it. The Grants Payable report has been simplified to just show amount paid and amount due on all open grants. Mr. McGonegle questioned whether these items should all be included in Current Liabilities on the Balance Sheet if they are not to be paid within the next year, but also include out-year payments. Mr. Smith committed to investigate rules with auditor as part of year-end close.

CCT statements: Mr. Smith reviewed the CCT detailed and summary reports, reminding committee members that they are one month behind the operating reports. Mr. Smith will request CCT to provide an annual report to the Finance Committee before the December Trustees meeting, since several committee members are not on the Board. Treasurer Henning can then present results to Board, as is done with Audit, Research and other standing committees.

Old Business: Committee approved adding \$1.0 million umbrella policy specific to STIHL Tour des Trees at price of approximately \$1,500 per year. This supplements existing Tour liability (\$1.0 million) and casualty (\$100,000) policies. Mr. Smith is still working on standard terms and conditions for Certificates of Insurance for all TREE Fund vendors, and is also working to make sure that all current vendors have valid and compliant certificates where applicable. He is also still evaluating alternatives to CCT for future new endowment funds. Contributions made to funds already established within CCT will continue to be directed to CCT, rather than splitting them. New funds established under the Endowment Building Campaign will be presented to Board of Trustees with a recommendation as to whether they should be placed with CCT or an alternate steward.

New Business: Mr. Smith reported on the Audit RFP process underway and on the completed RFP for a Feasibility Study contractor. CCS will be engaged at a cost not to exceed of \$55,000, which is within the \$65,000 cited at the May Trustees meeting.

On motion by Mr. Wolf and second by Mr. McGonegle, the meeting adjourned at 11:55 am. Next meeting is scheduled September 20, 2016 at noon central time via conference call.

<b>Task</b>	<b>Assigned to</b>	<b>Due date</b>
Investigate increase in Service Fees	Eric	9/20/16
Discuss with auditor the rules about reporting outstanding grant payments as Current Liabilities on the Balance Sheet if not to be paid within the next year	Eric	Year end
Request CCT to provide an annual report to the Finance Committee before the December Trustee meeting	Eric	11/15/16
Confirm that all vendors have valid and compliant COIs	Eric	ongoing
Evaluate alternatives to CCT for endowment funds	Eric	ongoing



## Finance Committee Meeting Minutes

**Date & time of meeting:** September 20, 2016, Noon Central Time via conference call

**Attending:** Ray Henning, Treasurer; Terry McGonegle; Bill Schleizer; J. Eric Smith; Tom Wolf

**Excused:** Rick Joyce

Call To Order: Treasurer Henning called the meeting to order at 12:03pm Central Time.

Confirm Minutes from August 15, 2016 meeting: Treasurer Henning asked whether anyone had any comments or changes to the minutes. None were mentioned. Motion was made by Mr. McGonegle to approve the minutes; motion was seconded by Mr. Wolf. With no discussion, they were approved unanimously.

August 2016 Financial Statements: Mr. Smith stated that August was a strong month. The UAA check has not yet arrived, but we have confirmation that it is on the way. Once this check has been received, the revenue goal will have been met with three months remaining to year end. ISA Conference event came in under budget and over projected income; new event was a successful model. Tour revenue is coming in steadily. Mr. McGonegle followed up on Service Fee classification which has been corrected on August financials. Also, Grants Payable show \$2500 differential between Grants Payable Report and Balance Sheet. Eric will investigate and reconcile. Possibly \$2500 paid to Susan Day, Virginia Tech on 8/25/16. Grants Payable report reflects payments outstanding on Board approved obligations having multi-year payments.

July CCT Reports: Payment made to CCT in late July had not yet been posted on CCT Statement. TREE Fund's relationship with CCT is via enforceable contract, an instrument of gift. As new endowment funds are established, Mr. Smith will recommend best new custodian to the Board.

### Old Business:

- Audit Firm RFP Update – Sassetti LLC has been approved by Audit Committee as TREE Fund's new auditor. Vote will be taken at October 3 Trustee Meeting to approve.
- Feasibility Study RFP Update: CCS has been engaged. Mr. Smith met with "embedded staff member." Interviews are being scheduled. CCS will present an interim report to the Executive Committee and make a presentation to the Board in December.
- Consultant and Hiring Update: Laura Flamion accepted an offer for the bookkeeper position and will submit an agreement as an independent contractor for services through December 2017. She will work in the office approximately 24 hours per week.
- Tasks from prior meeting:

- Investigate increase in service fees: completed
- Discuss with auditor rules about reporting outstanding grant payments: to be completed with Sassetti prior to year end
- Request CCT to provide annual report to Finance Committee prior to December Trustee Meeting: has been requested
- Confirm that all vendors have valid and compliant COI's: completed for 2016. Mr. Smith is creating template for future use
- Evaluate alternatives to CCT: Mr. Smith met with Bellwether Consulting and is waiting for their response. He will also make another inquiry.

New Business: Governance Committee has reviewed TREE Fund Trust Agreement for updates and changes. Next step is legal review. Revisions will be presented to Board for approval at December Trustee Meeting.

On motion by Mr. Schleizer and second by Mr. McGonegle, the meeting adjourned at 12:30pm Central Time. Next meeting is scheduled October 17 at noon central time via conference call.

<b>Task</b>	<b>Assigned to</b>	<b>Due date</b>
Discuss rules about reporting outstanding grant payments with Sassetti	Eric Smith	Prior to year end
Create template for COI requirements	Eric Smith	Prior to year end
Suggest alternatives to CCT	Eric Smith	Prior to year end



**The TREE Fund**  
**Profit & Loss Budget vs. Actual**  
January through August 2016

	<u>YTD Actual</u>	<u>YTD Budget</u>	<u>Over/(Under) Budget</u>	<u>% of YTD Budget</u>	<u>Annual Budget</u>
<b>Ordinary Income/Expense</b>					
<b>Income</b>					
4001.00 · Annual Oper Campaign Unrestrict	131,226	120,000	11,226	109%	188,000
4100.00 · Other Income	428	2,300	(1,872)	19%	3,000
4500.00 · Special Event ISA Conference	90,360	60,000	30,360	151%	70,000
4700.00 · Sponsored Grants/Scholarship	313,349	245,000	68,349	128%	331,000
4900.00 · Special Event Tour Des Trees	367,350	350,000	17,350	105%	575,500
<b>Total Income</b>	<u>902,714</u>	<u>777,300</u>	<u>125,414</u>	<u>116%</u>	<u>1,167,500</u>
<b>Gross Profit</b>	902,714	777,300	125,414	116%	1,167,500
<b>Expense</b>					
6010.00 · Board & Liason Expense	5,294	8,000	(2,706)	66%	16,000
6020.00 · Grants and Contracts	177,614	125,000	52,614	142%	450,000
6050.00 · Occupancy & Equipment Expense	12,501	19,000	(6,499)	66%	28,000
6100.00 · Office Expense	20,986	21,000	(14)	100%	32,000
6150.00 · Personnel Expenses	249,018	248,000	1,018	100%	380,700
6200.00 · Professional Fees	48,900	21,000	27,900	233%	25,000
6300.00 · Service Fees	6,286	6,000	286	105%	12,000
6500.00 · Special Event ISA Conference	13,480	21,000	(7,520)	64%	23,000
6900.01 · Special Event Tour des Trees	54,478	52,000	2,478	105%	193,000
7000.00 · Technology Expense	12,305	14,000	(1,695)	88%	25,000
7100.00 · Travel & Meetings	17,893	27,200	(9,307)	66%	39,200
<b>Total Expense</b>	<u>618,756</u>	<u>562,200</u>	<u>56,556</u>	<u>110%</u>	<u>1,223,900</u>
<b>Net Ordinary Income</b>	<u>283,958</u>	<u>215,100</u>	<u>68,858</u>	<u>132%</u>	<u>(56,400)</u>
<b>Net Income</b>	<u><b>283,958</b></u>	<u><b>215,100</b></u>	<u><b>68,858</b></u>	<u><b>132%</b></u>	<u><b>(56,400)</b></u>

**CCT payments made in 2016 to date:**

1/19/2016	\$	96,765
2/9/2016	\$	26,000
3/29/2016	\$	48,170
4/27/2016	\$	20,552
5/13/2016	\$	3,976
7/19/2016	\$	106,152
8/29/2016	\$	60,041
	\$	<u>361,655</u>

*Note: This posted on 7/19 in our books, but did not arrive/clear at CCT in July, so does not show up in July CCT Detail/Summary Reports.*



***Cultivating Innovation in Arboriculture and Urban Forestry***

552 South Washington Street, Suite 109, Naperville, Illinois 60540 630-369-8300 [www.treefund.org](http://www.treefund.org)

**Investments Managed by Chicago Community Trust**

reconciliation as of 7/31/16

			12/31/2015	Addition:		YTD Net	7/31/2016
Permanently Restricted Funds:			Balance	2016 income	Subtotal	Change in Asset	Balance
1520.41	BRB	Barborinas Fund	65,076	26	65,102	2,300	67,402
1520.51	GAM	Frank Gamma Arbor. Ed. Fund	143,126	2	143,128	5,058	148,186
1520.13	WHI	John White Fund	59,332	1	59,333	2,097	61,430
1520.22	MCC	Dr. Mark McClure Research Fund	122,111	-	122,111	4,315	126,426
1520.81	IAA	IL Arborist Association Fund	43,891	1	43,892	1,551	45,443
1520.30	SAT	Safe Arborist Techniques Fund	251,058	13,251	264,309	8,872	273,182
1520.12	WRI	John Wright Memorial Schol Fund	27,153	3	27,156	960	28,115
1520.71	UAR	Utility Arborist Research Fund	362,441	12,051	374,492	12,809	387,301
1520.94	CATT	Collier Arborist Training Trust	-	144,935	144,935	-	144,935
1520.92	OHC	Ohio Chapter ISA End. Fund	113,656	-	113,656	4,017	117,673
1520.95	APP	Bonnie Appleton Memorial Fund	55,135	4,297	59,432	1,948	61,380
1520.92	SKI	Bob Skiera Memorial Fund	299,359	19,497	318,856	10,579	329,435
1520.11	DUL	John & Evelyn Duling End. Fund	528,258	2	528,260	18,668	546,929
1520.21	FEL	Robert Felix Memorial Fund	625,792	1,395	627,187	22,115	649,303
1520.61	BRT	Bartlett Fund	44,096	0	44,096	1,558	45,655
1520.99		Other Unallocated Funds	186,892	-	186,892	6,605	193,497
		<b>Total Permanently Restricted</b>	<b>2,927,376</b>	<b>195,463</b>	<b>3,122,839</b>	<b>103,452</b>	<b>3,226,291</b>
<b>Total Investments at CCT</b>			<b>2,927,376</b>	<b>195,463</b>	<b>3,122,839</b>	<b>103,452</b>	<b>3,226,291</b>

## TREE FUND MEMORANDUM

Date: September 22, 2016

To: TREE Fund Board of Trustees

Fm: J. Eric Smith, President and Chief Executive Officer

Re: Report for October 3, 2016 Trustee Teleconference

### INTRODUCTION:

It was late September a year ago when I participated in my first full meeting of the TREE Fund's Board of Trustees during our late summer teleconference. In some ways, it seems like that was just yesterday – though when I reflect on the miles I've accumulated over the past 13 months, and the accomplishments we've achieved collectively, I do consider it to have been a busy and transformative time, for both me and for the organization. I remain grateful for your confidence and support, and honored to serve as our organization's chief executive.

As I've noted to you all before, I believe in frank and full reporting in my communications with you, as I believe you require such candid information to properly fulfill your own fiduciary and governance responsibilities to our corporation. By necessity, such candor also dictates that documents like this one be held closely by their intended recipients, and considered company sensitive information. Therefore, I respectfully request that you do not forward or share this report beyond Trustees, Barb Duke and I, with thanks in advance for your discretion.

### WORK WITH TRUSTEE COMMITTEES:

Each of your committee chairs will be providing his or her own report of their respective groups' activities, but I wanted to provide brief summaries of key areas where I have been working closely with the committees to provide staff and executive support, since these activities sit at the heart of our endeavors for the past four months:

- **Finance Committee:** We have worked hard in 2016 to provide more timely and accurate reporting, moving from quarterly meetings to monthly, and segregating operating and endowment reports, so that we are able to review our operations within a couple of weeks of each month's close, rather than waiting an extra month for reports from Chicago Community Trust (CCT). Our news has been good thus far this year: we will break the budgeted full year's revenues by the end of September, and expenses are generally in line with budgeted levels, with some timing slips that will balance out over the next month or so (e.g. we gave more grants in May than originally planned, but will have less go out later in the year, so that we hit our budgeted goal). The one exception to this solid position on the expense side is related to contracted/consulting work: in addition to our auditor this year,

we have engaged contract accountants, real estate brokerage assistance, the feasibility study consultant, and management consulting to provide third party support of the Audit RFP process and to better document office policies and job descriptions to help us finally stabilize our bookkeeping functions. We have not yet seen offsetting decreases on the personnel side due to front-loading of some expenses, paying out accrued paid time off to departed employees, having to pay more for our development database administrator than expected, and a bonus to Barb Duke for her exemplary support in helping get through the office administration transitions. At bottom line, though, I remain certain that we will end the year well ahead of our net operating budget, as revenue gains will more than offset expense overruns. CCT will be making a presentation to the Finance Committee in advance of our December 2016 meeting, and I will be providing the draft 2017 budget to Finance Committee in late October to support a thorough review before it is sent to the Board for ratification in December. We also worked in committee this summer to evaluate all of our insurance policies, and have increased both our corporate umbrella policy, and a specialized umbrella policy specific to the STIHL Tour des Trees. As our assets grow in the campaign, we need to be mindful of increasing coverage as well from a risk management standpoint.

- **Audit Committee:** We have completed the procurement action for a three-year contract with an independent audit firm, and Chairman Will Nutter will be recommending to you on our call next week that we engage Sassetti LLC to serve in this important capacity. I appreciate the Audit Committee's active support of this process, which is not an easy one. Our long-term auditors, Dugan & Lopatka, did bid on this engagement again, and were accorded an interview with the Committee, but they did not score high on either their proposed price or their independent rating and screening. Sassetti scored high on all fronts. At our May Board meeting, I had noted that considered that the way we have been reporting our endowment funds was inconsistent with the nature of our contracted relationship with CCT. The Audit Committee had extensive conversations and tasked me with doing extensive research into this matter, and I remain confident that the changes we made in May are the correct ones. CCT agrees with this position. This will be a key matter for Sassetti to evaluate as they get a baseline together for the Fiscal Year 2016 Audit. I remind you that our auditors work for the Board, not for management. We are looking to find ways in the year ahead to make sure that Audit Committee has regular reports from Finance Committee and management to ensure that their Committee is prepared to represent your interests when audit season begins.
- **Governance Committee:** I have been working with Governance Committee to review and update our Trust Agreement to reflect current realities (legal and organizational), as well as organizational aspirations. The document has been "edited by accretion" since our organization in 2002, with occasional edits to change committee names, number of trustees, titles of officers, etc. But it contains some language that is inconsistent with current nonprofit practice and our own policies, and it defines terms and commitments that are making it more difficult than it should be to recruit new Trustees. The committee has completed its review and has recommendations for you all in December, and I am running the revisions through a legal review to make sure they are sound and compliant.
- **Research and Education Committee:** I am grateful to this committee for being willing to tackle a supplemental review cycle this summer to give the Ohio Chapter Education Fund a second chance to secure viable applicants, and to complete the review of our signature Research Fellowship program. We have the Duling and Kimmel grant cycle closing

this week, so they will have to muster again in the fall to complete those reviews, with my thanks. I had hoped that we would be ready to issue a first grant under the Safe Arborist Techniques Fund this year, and we had an RFP for it ready to go, but Jim Skiera at ISA (who are sponsoring this grant program, and provide members to its review committee) asked that we defer a year, as they may wish to have the first grant be sponsored/directed rather than open call. (This is allowable per the fund's organizational documentation.) We will, however, be issuing a directed grant under the UARF program this year using \$240,000 provided to us by PG&E via UAA (this is separate from the PG&E challenge to build the endowment). PG&E has identified its research team from Sonoma State University in California, and we have issued them an RFP, with expectations that this one will also be reviewed in fall for Trustee action by December, so that the first year's installment of funding may go out this year, per our budget and plan.

- **Development and Communications Committee:** We have merged the Development Committee with two of its constituent subcommittees (Communications and Planned Giving) to create a single, larger committee in advance of the Feasibility Study and campaign. In addition to conducting individual interviews, CCS (the Feasibility Study Contractor; not to be confused with CCT!) will participate in the October committee meeting by teleconference. This committee will likely form the nucleus of a Campaign Steering Committee, but we need to wait until the CCS report in December before activating this initiative upon their counsel and your approval of same.
- **Liaison Committee:** In recognition of the fact that Liaison Committee is accorded standing committee rights and specific mention in our Trust Agreement, Barb Duke and I are taking the lead for staffing this committee in the same way that we do the other Board committees staffed by Trustees. By not having this direct, senior line of communication in the past, I believe the Liaisons have been forced into a more directive and operating role, rather than serving as our champions and partners in their chapters. I participated in the Liaison calls in September and announced this change, reminding them that we plan to have more Liaison/Trustee engagement in the future, within the bounds of the Trustees' unique governance/fiduciary responsibility. I also informed them I intend to eliminate the "Chapter Challenge" concept, which forces them into retail fundraising and sales to an exorbitant degree, causes more ill will than good will as we raise the bar year after year, is highly labor intensive in the office, and creates undesirable perverse incentives (e.g. we are so eager to post gifts to the Chapter Challenge that we have often credited and acknowledged Chapters as donors instead of solicitors, robbing the real donors of their proper and due credit; we need to keep two sets of books when corporate teams span multiple chapters for the Tour, etc.). I see the Liaisons as crucial to our success in "friendraising" in the years ahead, and as our closest friends, we need to give them the latitude to reduce dependence on fundraising events just as we seek to do organizationally, and not force our 20 unique U.S. chapters into any "one size fits all" rubric. I believe this change will help us achieve another strategic goal of getting Liaisons from international chapters as well.
- **Executive Committee:** This committee essentially overlaps and provides strategic coordination of all the others. I have no specific work to report here, other than to note that I consider it to be an important and helpful forum for bringing the disparate elements of our operation together once each month for review, reflection, and goal-setting.

## OFFICE OPERATIONS AND STAFFING:

As we prepare these reports for you, our office is going through its final renovation to double our available space in our current building for a rent increase of about 50% per year. We will be moving furniture back in next week, and getting everyone situated in their new offices. I am pleased to be able to offer the staff this significant workplace improvement, and also happy to have more room and a nicer environment for meetings, both internal and with visitors.

I am pleased to report that effective October 3 (the day of our call), Laura Flamion will be joining our team as our Bookkeeper and Administrative Associate, working 24 hours per week. Laura is a very accomplished financial professional who for personal and family reasons is looking for a reduced weekly schedule with an organization she believes in. This engagement will be an independent contractor relationship, as was the case with Carol Holmes (except that Laura will be working twice as many hours per week). The initial contract is through December 31, 2017, with option years to follow upon mutual agreement. Laura will be taking on some of Barb Duke's office administration assignments, so that Barb can work more closely with me on strategic, governance, and grants management matters; Barb's title will change to Grants and Operations Manager on October 3 as well, to reflect these new assignments.

As we move into this next phase, we are grateful to management consultants John Suffern and Maggie McCoy, who have been working with us since May 2016 to support activities both routine (bookkeeping, monthly close and reporting, etc.) and transformative (properly documenting work flow, cleaning up accounts and records, developing procedures to be used by Laura, crafting a well-balanced and meaningful allocation of office duties, etc.). They have been exceptionally helpful partners, and we are better positioned to face "fresh eyes" from a new auditor, and to be better able to produce and manage the increased volume of activity that will be required as we get deeper into our campaign.

On this note, I have asked CCS to provide us with their independent and candid sense of our staff's fundraising capacity and personal capabilities going into the campaign as part of their feasibility study. In something roughly approximating current staffing configuration, it took eight years to raise the endowment from \$1.0 million to \$3.0 million – and about half of that \$2.0 million growth was driven by market improvement after the recession. Our current plan has us growing \$6.0 million in four years, or three times as much in half the time, beginning when markets are high, not low, providing less opportunity to just ride market forces upward.

When you remove market improvements from 2007 to 2016, this equates to a twelve-to-fifteen-fold increase *annually* in the amount of endowment fundraising we have to do in the years ahead. While we want to reduce financial dependence on the STIHL Tour des Trees and ISA International events, and are already taking steps to streamline both events significantly without reducing their community engagement value, we will still need to staff them, and as we add endowment lines, we may also need to add additional community engagement opportunities to create attractive naming opportunities or mission-based activities to generate philanthropic interest. So the workload on those elements is not likely to decline much – while the campaign workload will explode, and I can only effectively carry so much of it on my own.

To achieve such a radical transformation in our fundraising sea state, I am going to need a deeply skilled philanthropic development team, which is something very different from a special events and retail fundraising oriented team. At bottom line, we can't raise millions of dollars by selling more bandanas at trade shows and conferences, and by putting more logos on Tour jerseys, as has been our wont. The skills needed to solicit and secure larger, more complex, and fully philanthropic gifts are unique, and I may need to make staffing changes, add additional staff, or continue to rely on contract support through the campaign period to acquire them.

I have already made some shifts and transitions within the office, and have offered both internal mentoring and paid training in development principles and approaches, but I am not certain that it is going to be sufficient to meet needs, or that we have the required skills in house, beyond my own. CCS has helped many organizations evaluate such needs, and I look forward to their assessment of our current capabilities, and their recommendations on needed changes, if any. I will build flexibility into the draft 2017 budget to be able to accommodate such changes.

As I have noted many times over the past year, I am grateful that you have thus far been collectively willing to let me increase spending in several key areas to position us properly for our campaign. There is no question in my mind that we will need to continue spending more (or spending differently) to continue the desired growth rate – but there is also no question in my mind that these are expenses that will reap excellent long-term return on investment.

#### **CURRENT ENDOWMENT BUILDING ACTIVITIES:**

Through the end of August, we have already added ~\$361,000 in new funding to the endowment at CCT, and we have another ~\$13,000 in hand right now that will be transferred in the next week or so. We have already raised the \$250,000 for the UARF in 2016 required to achieve the first year's PG&E challenge match payment of \$125,000, and will be invoicing them for this in the first week of October. We have pledges of over \$100,000 for 2017 already, so I am confident we will max out the second year of the challenge as well. Special thanks to Will Nutter, Brent Asplundh, and Randy Miller for their help in securing these gifts.

These are not the only funds that are being transferred to the endowment in close to real time, as we are encouraging donors to restrict their gifts to the endowment if that is what motivates them philanthropically, since that supports our strategic goals. In the past, we have generally discouraged donors from designating their gifts to Tour riders or other operating appeals to the endowment, noting that "we have to keep the lights on" first. This is simply bad fundraising *and* friendraising, and I am not allowing staff to take such positions with donors, since we have adequate cash reserves to support endowment transfers as they come in.

As a reminder from our May meeting, when gifts are restricted by donors to funds that have been established within CCT, we must continue to direct those to CCT, so we do not split the accounts. When gifts to establish new named funds emerge, however, I have it as an assignment to hold them and recommend to the Trustees whether CCT is the best custodian for them, or whether we want to invest them elsewhere. I have had a meeting with a consulting brokerage who specialize in pension and endowment funds to lay groundwork for when such new named funds emerge.

With all of these activities currently in play, I feel reasonably confident that (absent massive market collapse) the endowment will reach \$4.0 million by the end of 2017 (we are at about \$3.4 million now) absent any other campaign activity. I have asked CCS to test a campaign goal of \$5.0 million accordingly, if you are wondering where that number comes from when they connect with you.

## **COMMUNITY ENGAGEMENT EVENTS:**

The “TREE Fund After Hours” event at ISA International was a success. We had 175 people in attendance at the peak, grossed over \$90,000, spent less than \$20,000 (we still have some final bills and invoices in process, hence round numbers here, but we beat budget in both cases), and *dramatically* decreased the amount of time that staff and chapters had to invest into managing and shipping silent auction items and pursuing other highly labor intensive retail elements of the prior configurations of the event. Things weren’t perfect (e.g. we had P.A. and sound issues on the trade show floor), but we will likely keep this model going forward, with tweaks to improve the layout and flow of the event. Jim Urban has also committed his design expertise to helping us make our booth more engaging and interesting next year.

The STIHL Tour des Trees is two weeks away, and things are pulling together well for that. We are working very hard to stress the community engagement element of this signature event, with support from STIHL’s media and marketing team, and seeking to make public as many events as possible along the way, rather than focusing primarily on rider-oriented entertainment and activities. This is truly the one time each year that we organizationally “take our show on the road,” and we want to maximize its friendraising and “open the circle” opportunities as much as we do the fundraising opportunities.

That being said, as I prepare to send this out (Thursday afternoon), we have more than covered our budgeted expenses for the event through our partnerships, and the riders have raised ~\$264,000 toward the goal of \$325,000. We will have a large burst of payments in the next 10 days as some riders wait until the end to self-fund their rides, some chapters do similarly for their rider sponsorships, and we collect ancillary fees (e.g. private hotel room premiums, etc.) in advance of check-in day. The event should be both a financial and community engagement success, at bottom line.

Next year is the 25<sup>th</sup> anniversary of the original Tour, and we will be holding the event in the Washington, D.C. metro area, hosted by ISA’s Mid-Atlantic Chapter. ISA International and ITCC are “together again” next year, and we are planning to hold the Tour in a “hub and spoke” configuration the week of those combined events. This will increase visibility, reduce costs, allow more people to participate (e.g. ride after the International Conference?, or before the ITCC, when committing to a full week might be prohibitive), and potentially turn our “After Hours” event into something truly signature with all of our riders on the scene to celebrate a quarter-century of success. Paul Wood (engaged on a new three year contract earlier this year) has already drafted preliminary route maps, and we will be convening the planning committee almost immediately after this year’s tour is over.



## **LISTENING TOUR:**

Last December, I committed to visiting all 20 U.S. ISA Chapters on a “listening tour” to get the lay of the land in our community, meet key constituents, and assess TREE Fund’s reputation in the field. I’ve also sought (and been granted, most of the time) the opportunity to briefly speak to membership and/or chapter leadership, and have carried three key messages to each of these groups:

- We are committed to increasing the size and number of grants issued, starting immediately
- Friendraising is as important as fundraising in the long term
- We must open the circle to new donors to meet our goals

As I type this, I have either visited or have a visit scheduled to 18 chapters. Two of them (Rocky Mountain and Michigan) have unfortunately been impossible for me to visit this year due to schedule overlaps with other key TREE Fund, ISA or TCIA events where my attendance is required. I have it as a priority to get to those chapters sometime early in 2017.

## **CONCLUSION:**

I look forward to seeing some of you on the Tour, some when I visit your chapters in October or November, and hopefully all of you at the usual location in Rosemont, Illinois, in December. As a reminder, we are looking to streamline the meeting to one longer day, and I will work with Executive Committee to plan and schedule that agenda to support all necessary activities (including time with Liaisons) over the next month or so.

Please don’t hesitate to let me know if you have any questions, comments, or concerns with anything contained in this report. I remain excited about my work, happy to represent our organization around the country, and pleased with the leadership and wise counsel you have provided to me.

All best,



J. Eric Smith,  
President and Chief Executive Officer



**Governance Committee Report**  
**Prepared by: Steve Geist, Chair**  
**Date Submitted: September 23, 2016**

***The Governance Committee is charged with the following***

**Basic Function:** The Governance Committee is Responsible for managing the process of soliciting new board members. It has the direct responsibility for coordinating the board's composition, development, evaluation and internal processes.

**Responsibilities:** To prepare priorities for board composition.

Draft a recruitment plan and continuously cultivate new prospects.

To meet with prospective board members and recommend candidates to the board.

To recommend a slate of officers to the board. Develop

job descriptions for board members

Orientate new board members and provide continuing education of all members on their responsibilities.

Ensure that the board regularly engages in self-assessment

To suggest new, non-board individuals for committee membership.

**Meetings:**

		June 8 2016	July 13 2016	Aug 16 2016	Sept 14 2016
<b>Attending</b>				unofficial	
<b>Chair</b>	Steve Geist	P	P	P	P
<b>Trustee</b>	Brent Asplundh	E	P	A	P
<b>Committee</b>	Dennis Beam	A	A	A	P
<b>Trustee, treasurer</b>	Ray Henning	P	P	P	P
<b>Trustee</b>	Tom Wolf	P	P	P	P
<b>Staff</b>	Barb Duke	P	P	E	P
<b>Staff</b>	Eric Smith	E	P	P	P

**P – present    A – absent    E – excused**

## **Topics and Action Items**

- Board self-assessment was last completed in 2010. Barb Duke forwarded the assessment to the committee. Committee questions the value and what we have done with the information garnered. Governance was going to take that up with our September call, however the committee continued that discussion till the October call.
- There is discussion about the need to build a Campaign Committee.
- Trust Agreement. Eric Smith and the committee reviewed the agreement, made comments and came to consensus on potential changes to the document. Really an efficient process! Agreement is now being reviewed and redrafted by legal counsel.
  - Strike references to trustee compensation. This does not include appropriate travel expenses, though there may be some clarification.
  - Amend Trustee terms to 3 2-year terms. Amend executive committee offices from 2 years to 1 year.
  - Clarification on ex-officio members. Term limits do not apply. Clarify voting privilege. President and CEO are non-voting members. Board may appoint ex-officio and emeritus non-voting members. They would not count as apart of maximum number of trustees.
  - Update and make more contemporary.

## **Accomplishments:**

- Made the amendments to the Liaison Committee document.
- Shortened the Trustee Application document. Removed everything after the “Experience” section.
- Paul Fletcher joined the Development committee.
- ISA Western Chapter named Rick Cober to the Liaison committee.
- Standing committees have been identified, chaired by Trustees and staffed by Eric Smith and Barb Duke.

## **Objectives for the fourth quarter of 2016:**

- Vice-chair recruitment.
- Development committee recruitment.
- Trustee recruitment.
- Review draft of Trust Agreement.

## **Next Meeting Date:**

October 19, 2016

Hello Development Committee:

As you probably know, the TREE Fund is about to embark on an ambitious drive to increase our endowment rather substantially.

The quiet phase of this program has begun already with very promising results.

Some key points for us committee members are the following (as taken mostly verbatim from an e-mail to the Trustees from our CEO, Eric Smith):

1. At our last board meeting, the TREE Fund implemented a procurement action to engage a strong independent contractor to guide us through a Feasibility Study -- a crucial step before we "go public" with our plans to build our endowment between now and 2020. (This feasibility study also includes a "wealth" study.) Before we announce any grand program we want to have some idea of the likelihood of success.

Following a competitive process, we selected and have engaged CCS Fundraising, a national leader in nonprofit development work, see: <http://www.ccsfundraising.com/>. They are an international fundraising consulting firm with marked experience in environmental protection and conservation.

2. A core value of CCS's model of engagement is to begin by soliciting perspective from our inner-most circle of supporters, advocates, friends and stewards. We (and they) believe that the more interviews conducted during the feasibility study process, the higher the likelihood that we will emerge with actionable, accurate information. We have provided CCS with a list of 85 TREE Fund constituents, with a goal of interviewing at least 60 of them before mid-November.
3. CCS's model of engagement is based on providing "embedded" staff support through the study process. Accordingly, one of their experienced operatives, Paige Azuma, will be our CCS Liaison between now and our December board meeting. She will be conducting these interviews. Be prepared to hear from her.
4. Eric has expressly urged all interviewees to be as candid and blunt as they can. cf. "So please be honest, complete, and blunt in your assessments of what we seek to achieve, and whether we have the resources and team required to deliver it. If I need to make management changes to get this work done and achieve the strategic goals you have set before me, I need to know that up front . . . and this feasibility study is a core element of that evaluation for me."
5. **Eric has also asked CCS to join one of our Development and Communications Committee calls in October/November, so several of you will also chat with Paige at that time. That conference call is scheduled to occur on Tuesday Oct. 18<sup>th</sup>, between 12:00 and 1:00 pm central time. Stay tuned for call information.**
6. Further down the road .... Sometime after the December board meeting, the Trustees will establish a steering committee which will take on a number of duties implementing the recommendations from CCS that are approved by the Trustees. Some members of the Development Committee will be on that steering committee. **This is when our work will begin.**

That might be enough of a heads up for now. If you have any questions or thoughts, please get back to me. Brian Sayers [bwsayers@roadrunner.com](mailto:bwsayers@roadrunner.com) 716-570-3966

Brian



**Liaison Committee Report**  
**Prepared by: Beau Brodbeck, Chair**  
**Date Submitted: September 22, 2016**

***The Liaison Committee is charged with the following***

**Basic Function:** To establish and maintain a sound, dynamic relationship between ISA Chapter Officers, members and other supporting organizations and the TREE Fund Board and Staff. Each Liaison serves as the primary communication link between their supporting organization and the TREE Fund. Liaisons are an essential part of the TREE Fund leadership team and must have the appropriate forums for relating information and issues to both their organization and the TREE Fund.

**Responsibilities:**

- Participate in their Chapter's Board meetings;
- Utilize their Chapter's communications tools to keep the membership informed about current TREE Fund opportunities, events and achievements;
- Establish regular, proactive communication with the TREE Fund Board and staff regarding relevant opportunities and issues within their Chapter;
- Facilitate the inclusion of a TREE Fund exhibit booth at their Chapter's annual conference or meeting;
- Ensure that time is scheduled on the agenda of their Chapter's general membership program for a TREE Fund presentation;
- Assist the TREE Fund Development Committee members and staff with identification and solicitation of potential funding sources and donors within your Chapter;
- Encourage strategic alliances with other stakeholder groups to enlist their support of the TREE Fund;
- Assist their Chapter in reaching its goal in the TREE Fund Chapter Challenge program by involving the membership in fundraising projects such as Tour des Trees, "Raise Your Hand for Research" auction, local auctions, golf tournaments, etc.;
- Communicate to the TREE Fund Research Committee research and education topics of special concern to their Chapter members;
- Encourage past TREE fund grant recipients to participate in Chapter education programs to communicate research results and the value of TREE

- Fund-sponsored projects; and
- Be an advocate for the TREE Fund and arboriculture research and technology transfer in general.
- **Provide mentorship for TREE Fund scholarship recipients within your chapter. Also be available to assist in mentoring scholars from other chapters with your specific area of expertise.**

**Related Strategic Initiatives:**

- Identify and Connect to New Resources
- Evaluate Potential Relationships with Possible Funding Sources
- Ensure User Groups Know What We Have Accomplished
- Target Constituencies for Feedback

**Meetings Attendance and Known Liaison Status:**

Chapter	Name	Liaison Status	Dec. 7, 2015	March, 2016	Sept., 2016
Florida	Eric Hoyer	1	X	X	X
Illinois	Mark Younger	1		X	X
Indiana	Tom Ordway	1	X		X
Kentucky	Dave Leonard	2		X	X
Michigan	Kathy Gilmour	3	X	X	X
Mid-Atlan.	Doug Peterson	3	X	X	X
Midwestern	Jeff Iles	2		X	X
Minnesota	Ryan Gustafson	1	X	X	X
New England	Jeff Carney	3			
New Jersey	Todd Mastrobuoni	3	X*	X*	X
New York	Frazer Pehmoeller	1	X	X	
Ohio	Beth Buchanan	3	X****	X	X
Pacific NW	Wendy Robinson	1		X	X
Penn-Del	Kristin Wild	1		X	X
Rocky M.	Jon Elliott	3	X***	X	X
Southern	Beau Brodbeck	1	X	X	X
Texas	Gene Gehring	3	X	X	X
Utah	Shirl McMayon	3	X	X	X
Western	Rick Cober	3			
Wisconsin			X**		
Staff	Mary DiCarlo		X	X	
Staff	Karen Lindell			X	X
Staff	Eric Smith				X

1. In place, stable no known changes in next 12 months.

2. Vacated or looking to vacate and appoint new liaison within 6 months
3. New Liaison within the past 12 months

Green      Vacant positions  
 \*            Represented by Steve Chisholm  
 \*\*           Represented by Adam Alves  
 \*\*\*        Represented by Steve Geist  
 \*\*\*\*       Represented by Laurie Skull

### **September 2016 Conference Call:**

Began by announcing our newest liaisons Rick Cobber representing Western Chapter. Staff provided a news update for 2016 including; a review of the After Hours Auction, upcoming grant cycles, deadlines for the 2016 Tour, synopsis of the 2017 tour, annual appeal reminder and the next webinar date, topic and speaker.

Next Eric Smith discussed potential changes he foresees for the liaison committee. Including shifts from operational to strategic activities, encouraging more liaison and trustee interactions and restructuring conference calls to improve both staff efficiency and encourage bimonthly thematic conference calls. Eric also discussed suspending the chapter challenge as it places escalating expectations on liaisons and is difficult for staff to track. Instead he hopes to move towards a friendraising model where chapters are treated as corporate partners and liaisons serve an outreach and communication role. Overall, liaisons were supportive of proposed changes.

Finally, Beau Brodbeck, discussed term limits with liaisons and the new governance document encouraging 3-year term limits. Beau will be polling liaisons in the following weeks to better understand each chapter's specified (if any) term limits and the time each liaison has spent in their position. Liaisons were concerned that enforced term limits might increase the difficulty of finding new liaisons every 3 years and felt this had been recently attempted with no results. At the conclusion of the call Beau encouraged liaisons to suggest discussion and training topics for the December meeting, as their traditional fundraising roles might begin to change.

### **Objectives for the Next 3 Months:**

<b>Task</b>	<b>Assigned to</b>	<b>Due date</b>
Advise Beau or Karen if you would like to mentor a scholarship recipient	Liaisons	ongoing
Send mentorship information to Kristin Wild	Karen Lindell	9/30/16
Advise Chapter members of webinar on November 30	Liaisons	11/30/16
Advise riders that fundraising minimums are due 10/8; credit cards will be charged for balance due	Liaisons	10/1/16
Contact Karen Lindell for Annual Appeal Chapter Match	Liaisons	10/30/16
Forward TCI Expo information on equipment auction to benefit TREE Fund to contacts	Liaisons	10/15/16
Send email to Liaisons re: Chapter term limits	Beau Brodbeck	11/15/16
Send comments re: Liaison role to Beau	Liaisons	9/26/16
Send December meeting topics to Beau	Liaisons	11/15/16
Send any ideas, suggestions or concerns to Beau	Liaisons	ongoing



**Audit Committee Report**  
**Prepared by: Will Nutter Chair**  
**Date Submitted: 9-20-16**

**The Audit Committee is charged with the following:**

**Basic Function:** The Audit Committee is to provide independent oversight of the financial reporting, the system of internal financial controls, and the decisions surrounding accounting policies of the Tree Fund. The Committee also selects independent accountants to perform the annual audit and prepare the Fund's tax returns. It is also charged with the recommending to the Tree Fund Board of Trustees changes in policies, procedures or internal controls concerning the Fund's financial recording and reporting systems.

**Responsibilities:** The Audit committee shall appoint and or approve the independent auditors. The audit committee shall review and approve the audit plan and scope. The audit committee shall review accounting policies and practices with auditors. The audit committee shall review legal and regulatory matters with auditors. The audit committee shall review and approve the audited financial statements. The audit committee shall review the audit management letter. The audit committee shall review the audit schedule of differences. The audit committee shall evaluate the independent auditors.

**Related Strategic Initiatives:** RFP for Auditing Services

**Meetings:** Please include dates, those who participated, topics and actions.  
David McMasters, John Signorini, Will Nutter, Barb Duke, Eric Smith,

**Accomplishments;** Completion of an RFP for the Tree Fund for auditing purposes. Staff sent out an RFP and selected the top three firms to present to the



**audit committee and staff based on selected criteria. A new firm Sassetti LLC has been chosen and an engagement letter has been prepared for approval. Clarification discussions and investigation into the Chicago Community Trust investments and how it relates to past and future audits.**

**Objectives for the next 3 months: Develop a liaison from the finance committee to engage with the audit committee to improve the flow of information and help the audit committee become more engaged and informed. Schedule regular meetings to help the audit committee more involved on a regular basis and not just during the audit and tax season.**

**Next Meeting Date: TBD. Staff is setting up available dates for future meetings.**

COUNCIL OF REPRESENTATIVES (COR) REPORT  
ALLAN WEST, CHAIRMAN EMERITUS  
TREE FUND REPRESENTATIVE TO COR  
September 25, 2016

BASIC FUNCTION

The ISA Council of Representatives (COR) is an integral part of the ISA Governance. The Council is composed of a Representative from each ISA Chapter, Professional Affiliate, Certification Board, TREE Fund and ISA Associate Organizations, all referred to as individual components. The TREE Fund has one seat on the Council known as the TREE Fund Representative to COR. Because we are not a membership organization, we do not have a vote on most issues, however play an important role in providing information and insight on issues.

The mission of the Council is: To support the mission of the ISA by facilitating cooperation and collaboration among the ISA components and the ISA Board of Directors.

RESPONSIBILITIES

- Represent the TREE Fund at COR activities and deliberations
- Attend Annual COR meeting and annual joint COR/ISA Board of Directors meeting
- Participate in COR conference calls, committees, task forces as assigned
- Report COR activities to TREE Fund Board
- Keep current on TREE Fund Board activities, policies and procedures
- Take TREE Fund concerns and issues that involve other components through COR to the ISA Board
- With other COR members, participate in making recommendations to ISA Board of Directors concerning ISA policies, by-law changes, activities and other matters of organizational interest
- Participate in annual vote of COR-elected directors to the ISA Board

ACTIVITIES

- The Annual COR meeting was held at Fort Worth Convention Center on Sunday August 14; only 55% of the sixty person Council attended. There were 8 international chapters in attendance. I was unable to attend due to a last minute sickness but Tom Wolf represented the TREE Fund. Parts of the meeting were attended by members of ISA Board and staff to make presentations throughout the day long meeting.
- Presentations of recognition were given to all Chapters and Affiliates who had participated in scheduled conference calls, requests for information, attendance at meetings, etc. Those who have participated in 75% of the activities were recognized, TREE Fund was one of those with 100%.
- Some minor changes were made in the COR by-laws. The secretary position on the Executive Committee was changed to a 4<sup>th</sup> Vice President since the ISA Staff preforms the function of the Staff. In section II. e. "Recommendation for" has been added because COR does not create

educational programs. Section VI. a. changed to reflect the intent that COR members be appointed for 3 year terms (max 6 years) since ISA cannot dictate terms to Chapters or Affiliates. The intention however, is to have one third turn over every year so there is continuity.

- Election was held to fill vacant COR Executive Committee positions:
  - David James, Chair New Zealand Chapter
  - Jim Vaughan, Vice Chair Minnesota Chapter
  - Lee Huss, Vice Chair Indiana Chapter
  - Michael Sultan, Vice Chair Texas Chapter
- Some of the Chapters presented slides of ongoing activities. Tom presented the TREE Fund slides prepared by Mary. It contained the titles of recent research grants awarded, a picture of the Scientist, general comments and a couple of pictures of ongoing projects. The importance of what we did was to point out several of the awards made to international scientists. The point was made that results for research projects are applicable to arborists where ever they practice. Also, currently the majority of funds that come to the TREE Fund come from North American ISA Chapters, Affiliates and Businesses. The follow up is to see how the International Chapters can participate further in support of funding the TREE Fund.
- The COR members were split into small groups and did some brainstorming on a couple of subjects: Promoting the Profession and Public Awareness. A number of ideas surfaced and will be used in future work of the ISA Board, Committees and COR.
- ISA is currently reviewing their by-laws and through the “Intake Form” process, COR has been reviewing each change. So far, the changes focus on Chapters and have little or no impact on the TREE Fund.



**User:** mpzucker@umd.edu

**ADMIN: Reason(s) Not Eligible**

## Research Fellowship Grant Application

**Please note: This application is available for viewing year-round,  
but may only be submitted June 1 through September 1.**

If you have any questions, please email [bduke@treefund.org](mailto:bduke@treefund.org) or call 630-369-8300 x200.

### Applicant

#### Principal Investigator

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Status	Professor
Title	Assistant Professor
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Degrees	<p>B.A., Environmental Studies, Binghamton University, 1995</p> <p>M.S., Plant and Soil Sciences, University of Tennessee, 1998</p> <p>Ph.D., Ecology, University of Georgia, 2003</p>
Relevant citations authored	<p>Pavao-Zuckerman, M.A., and Bossler, B. Assessing ecosystem services with hemispherical photography in a semi-arid urban park (in prep)</p> <p>Pavao-Zuckerman, M.A., and Sookhdeo, C. Biological soil quality indicators of green infrastructure designs in a semi-arid city. <i>Water and Environment Journal</i> (submitted)</p> <p>Hough, M., Scott, C.A., M.A.Pavao-Zuckerman, Using trait-based ecology to identify thresholds in the ecosystem service cascade: a framework for decision making. <i>Ecosphere</i> (in revision)</p> <p>Pavao-Zuckerman M.A. and R.V. Pouyat. (in press, 2016) The effects of urban expansion on soil health and ecosystem services within cities. In (C. Gardi, ed.) <i>Urban expansion, land cover, and ecosystem services</i>, Earthscan: Routledge</p> <p>Tanner, C., F. Adler, N. Grimm, P. Groffman, S. Levin, J. Munshi-South, D. Pataki, M. Pavao-Zuckerman, W. Wilson (2014) <i>Urban ecology: advancing science and society</i>. <i>Frontiers in Ecology and the Environment</i> 12: 574–581.</p> <p>Zhang X., Niu G.-Y., Elshall A.S., Ye M., Barron-Gafford G.A., and Pavao-Zuckerman M. (2014): Assessing five evolving microbial enzyme models against field measurements from a semiarid savannah – What are the mechanisms of soil respiration pulses? <i>Geophysical Research Letters</i> 41 DOI: 10.1002/2014GL061399 2013</p> <p>Felson, A., M.A. Pavao-Zuckerman, T. Carter, F. Montalto, W. Schuster, E. Stander, and O. Starry. 2013. Mapping the design process for urban ecological researchers. <i>Bioscience</i> 63(11): 852-864</p> <p>Pavao-Zuckerman, M. 2012. Urbanization, soils, and ecosystem services. D. H. Wall, et al., editors. <i>Soil Ecology and Ecosystem Services</i>. p.270-281. Oxford University Press, Oxford, UK.</p> <p>Pavao-Zuckerman, M.A. and L.B. Byrne. 2009. Ecological theory from the perspective of urban soils: Digging deeper or scratching the surface? <i>Urban Ecosystems</i>. 12:9-20.</p> <p>Pavao-Zuckerman, M.A. 2008. The nature of urban soils and their role in ecological restoration in cities. <i>Restoration Ecology</i>. 16:642-649.</p> <p>Pavao-Zuckerman, M.A., and D.C. Coleman. 2007. Urbanization alters the functional composition, but not taxonomic diversity, of the soil nematode community. <i>Applied Soil Ecology</i> 35:329-339.</p>

Pavao-Zuckerman, M.A., and D.C. Coleman. 2005. Decomposition of chestnut oak (*Quercus prinus*) leaves and nitrogen mineralization in an urban environment. *Biology and Fertility of Soils* 41:343-349.

Has this investigator previously received funding from the TREE Fund?

Yes

If yes, was the funding for this project?

No

Previous TREE Fund awards

13-JD-05 Characterizing urban forest functioning and ecosystem services with digital imaging

**Co-Principal Investigator (if applicable)**

Prefix

Dr.

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Weil

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Title

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Degrees

B.S., Crop Science, Michigan State University, 1970.  
M.S., Soil Science, Purdue University, 1973.  
Ph.D., Soil Ecology, Virginia Tech, 1977

Relevant citations authored

Weil, R.R., and N.C. Brady. 2017. *The Nature and Properties of Soils* (link is external). 15th ed. Pearson, Columbus. 1086 p. ISBN-13: 9780133254488.

Wang, F., Y.A. Tong, P. Gao, J. Zhang, R.R. Weil, and J.N. Coffie. 2014. Organic amendments to a wheat crop alter soil aggregation and labile carbon on the loess plateau, China. *Soil Science* 179:166-173.

Chen, G., R.R. Weil and R. Hill. 2014. Effects of Compaction and Cover Crops on Soil Least Limiting Water Range and Air Permeability. *Soil & Tillage Research* 136:61-69.

Lucas, S.T., and R.R. Weil. 2012. Can a labile carbon test be used to predict crop responses to improve soil organic matter management? *Agronomy J.* 104:1160-1170.

Gruver, J., R.R. Weil, C. White, and Y. Lawley. 2012. Radishes – a new cover crop for organic farming systems. e-Organic e-Extension, <http://www.extension.org/pages/64400/radishes-a-new-cover-crop-for-organic-farming-systems> (link is external)

Chen, G., and R.R. Weil. 2010. Penetration of cover crop roots through compacted soils. *Plant and Soil* 10.1007/s11104-009-0223-7.

Dean, Jill E., and Ray R. Weil. 2009. "Brassica cover crops for nitrogen retention in the Mid-Atlantic Coastal Plain." *Journal of environmental quality* 38.2: 520-528.

Weil, Ray, and Amy Kremen. 2007 "Thinking across and beyond disciplines to make cover crops pay." *Journal of the Science of Food and Agriculture* 87: 551-557.

Has this investigator previously received funding from the TREE Fund?

No

If yes, was the funding for this project?

Previous TREE Fund awards

### **Students/Interns (if applicable)**

#### **Student/Intern 1**

Name	Isaac Hametz
Department or major	Environmental Science and Technology
Status	PhD student

#### **Student/Intern 2**

Name	Rahat Sharif
Department or major	Environmental Science and Technology
Status	PhD student

#### **Student/Intern 3**

Name

Department or major

Status

## Project

Project title	Innovative Practices to Enhance Soil Quality for Vacant Urban Lot Afforestation
Research area	Soil biology/soil amelioration
Project summary	<p>Urban forests have great potential to provide ecosystem services and improve well-being and health in cities. However, the quality of urban soils is impaired, thus limiting the potential for urban forests. By investigating approaches to improve urban soil quality, this project addresses the TREE fund soil biology/soil amelioration priority area. Our objectives are to: (1) review current literature on urban soil quality and amelioration, (2) explore the transfer of agricultural best practices for managing soil quality to urban forestry settings, (3) evaluate the impacts of soil amendment practices on soil quality for urban tree growth, (4) explore a soil quality minimum/best data set to characterize urban soil characteristics to support plant growth and establishment. We propose a 3-year field study comparing several soil amendments, including the use of agricultural cover crops, to improve soil quality in vacant lots in Baltimore, MD for reforestation purposes. We will track soil quality and plant response variables over time, and analyze the connections between treatments, soil biological, chemical, and physical quality and their influence on plant responses. Our expected outcomes include: (1) a quantifiable evaluation of soil amendment practices for urban forests, including the adoption of a technique from sustainable agriculture; (2) an assessment of soil quality indices for plant growth and ecosystem services for urban soils in vacant lots, (3) dissemination of results and approaches to academics, industry professionals, and municipal and governmental managers and researchers, and (4) the training of two graduate students and mentoring of one junior faculty member.</p>
Statement of problem and objectives of project	<p>Urbanization is arguably one of the most dramatic forms of landscape change, and an important anthropogenic influence on the structure and function of ecosystems. It is projected that the percentage of the U.S. population living in urban areas will increase from 74% in 1986 to greater than 80% in the year 2025. Cities have obvious impacts on local ecologies and environments, such as shifts in species diversity, alterations to hydrology, urban heat islands, deposition of nutrients and pollutants, and reductions in soil health. While scientists are now familiar with many of these localized impacts of urbanization, cities and suburban areas contribute to 10-15% of surface land cover in the conterminous U.S., pointing to the potential, yet poorly understood, contribution of cities to regional, national, and global energy and carbon budgets. Moreover, the local environments that the majority of people now experience day to day are in urbanized landscapes, with potential affects on well-being and public health.</p>



Much of this knowledge of urban ecology has been referred to as ecology “of” and ecology “in” cities. These two perspectives focus on cities as a new kind of habitat to investigate ecological patterns and processes. Yet, as cities continue to expand, urban ecologists are placing greater emphasis on understanding ecology “for” cities. This refers to the application of ecological knowledge and principles to guide the functions and management of urban ecosystems and the ecosystem services (e.g. habitat, air, and water quality) that cities provide. While studies demonstrate that the urban environment alters the structure and function of remnant patches of native ecosystems relative to their non-urban counterparts, the ability of restoration, planning, and design to increase and improve the provision of ecosystem services is a relatively new approach within ecology.

Management and regrowth of urban forests is a part of this ecology “for” cities approach. There is considerable interest in rehabilitating, reclaiming, and restoring vacant lots to provide ecosystem services. In many aging cities in the US (such as Baltimore, MD) there is a growing abundance of vacant lands and lots that could contribute to urban forest practices. Managing environmental challenges from direct and indirect effects to support urban forest growth in novel areas such as vacant lots is a growing element of the ecology ‘for’ cities. Yet, there is still a need to explore and field-test innovative practices to enhance soil quality to support these afforestation efforts.

The objectives of this project are therefore to:

1. Review current literature on urban soil quality and amelioration
2. Explore the transfer of agricultural best practices for managing soil quality to urban forestry settings.
3. Evaluate the impacts of soil amendment practices on soil quality for urban tree growth
4. Explore a soil quality minimum/best data set to characterize urban soil characteristics to support plant growth and establishment.

Significance of your proposed project as it relates to the profession of arboriculture or urban forestry

This project provides tools and information for commercial and municipal urban forestry – it will refine practices for improving soil quality and a minimum data set to evaluate soil quality. This project will also support the training of PhD students to interface with arboriculture professionals in the generation of scientific knowledge for urban forest management. One of the students supported on this project (Isaac Hametz) is a practicing landscape designer in Baltimore, MD. Supporting his research and training will expand the scope of professions that address soil quality and management issues for urban forestry practice. This research strongly aligns with the “Ten-Year Urban Forestry Action Plan (2016-2026)” produced by the US Forest Service, National Urban and Community Forestry Advisory Council, and American Forest Foundation: (I) Goal 4 (Strengthen Urban and Community Forest Health and Biodiversity for Long-Term Resilience) & Goal 5 (Improve Urban and Community Forest Management, Maintenance and Stewardship) involve addressing site preparation and the use of amendments to meet soil and water needs for urban trees and forests; (II) Understanding the

Brief description of what is currently known about proposed project area

contribution of urban soils to tree growth is needed to better connect urban forest health, environmental health, and ecosystem service provision. Developing these research themes and integrating them into urban forestry training and practice is a key goal for the 10-year action plan and the urban forestry profession. Our project contributes to these goals by implementing a research agenda, training the next generation of urban forest scientists, and connecting with the urban forest profession to disseminate knowledge.

Soils are a critical ecosystem component underlying or directly supporting the majority of terrestrial ecosystem services. Soil can be seen as a form of 'natural capital' that supports the provision of ecosystem services. Soil health (the ability of soil to function and provide desired services and maintain environmental quality) is a critical component of a soil's role as natural capital supporting the provision of ecosystem services. It is the knowledge of the interaction of physical, chemical, and biological properties of soils that underlies management of soil health through conservation, forestry, and restoration practice.

The characteristics of urban soils vary widely and are dependent on both direct and indirect effects of urban land-use change (Pavao-Zuckerman 2008). Examples of direct effects include soil disturbances such as grading, management inputs such as irrigation and compaction through trampling, while indirect effects include environmental changes such as the urban heat island effect and atmospheric deposition. Urban ecosystems are characterized by an alteration of energy, water, and material fluxes that stem from disturbance, management, and other physical alterations to the environment. Cities therefore can indirectly impact soils through these direct processes associated with urbanization. Such direct and indirect effects on urban soils can significantly impact the ability of urban soils to support tree growth and to provide ecosystem services. Heneghan et al. (2008) and Pavao-Zuckerman (2008) explore the use of soil ecological knowledge for supporting restoration and remediation practices. These reviews suggest that we need to understand the interaction of physical, chemical, and biological properties along a gradient of reclamation, restoration as the nature of disturbance links to the soil quality properties that are most impacted and in need of amelioration. Moreover, it is often the physical and direct effects of urbanization that need to be addressed primarily when attempting to use new sites for plant growth and afforestation practices in cities.

Large-scale tree planting efforts have been viewed as a strategy to restore ecosystem services in cities due to the many benefits that trees provide. Vacant lots are an opportunity for growing urban forests and hold great promise for providing many types of ecosystem services in the urban fabric. In an assessment of hydrologic properties of vacant residential lots in Cleveland, OH, Shuster et al. (2015) suggest that policies and procedures for vacant lot management may positively impact soil properties such that these lots become part of the urban green infrastructure. Moreover, similar lot-scale management and processes may allow lots to

function more ecologically, with improvements to soils reducing demand for irrigation as infiltration processes are supported (Shuster et al., 2015). Kremer et al. (2013) conducted a social-ecological assessment of vacant lot utilization in New York City and found a range of uses (including, gardening, park space, parking, and athletic activities). Importantly, they found that the whether and how residents used lots was a localized phenomenon, and was influenced by socio-economic factors (Kremer et al., 2013). This suggests that planning and management of vacant lots for urban forestry programs to provide ecosystem services should take into account local conditions and demand for services might better contribute to urban sustainability (McPhearson et al. 2014). Soil quality management of vacant lots in cities is a critical local management issue that needs to be addressed to ensure successful development of urban forests though time.

Soil carbon management is often the most critical approach to improving urban soil quality. Increasing the soil carbon pool has many direct and indirect ecosystem benefits for improving soil structure, enhancing infiltration rates, and increasing populations of soil biota (Heneghan et al. 2008). This can be achieved through composts and mulches and biochar, where repeated application can improve soil physical properties affected by urbanization, such as bulk density, infiltration rates, and soil water holding capacity (Cogger, 2005). Indirect benefits of compost applications on soil properties may help to also alleviate urbanization impacts on plant productivity (Scharenbroch, 2009), which may have additional indirect benefits for urban soil quality through root and litter production.

There have been several studies that explore the use of amendments in urban forestry and afforestation programs. In the initial stages of an afforestation project in New York City, Oldfield et al. (2014) report that site preparation and soil amendment improves the health of urban soils. Specifically, they observed reductions in bulk density, increases water holding capacities, increased microbially-available carbon, and enhanced carbon storage. However, it should be noted that site preparation itself dominated treatment effects (compost amendment) in the early stages of the afforestation project (Oldfield et al. 2014). Oldfield et al. (2015) suggest that site preparation that included the use of mulching of soils reduced bulk density and increased microbial biomass and labile carbon. They found that soil amendments could impact physical, chemical, biological soil properties that are important for infiltration, mineralization and nutrient retention. Their study implies that considering soil in afforestation approaches can help improve urban environments and increase the contribution of urban forests to ecosystem service provision.

Many types of amendments are utilized to address soil compaction, organic matter, and nutrient issues in urban soils. While fertilizers, compost, and wood chip mulch are common amendments for urban soils, Scharenbroch et al. (2014) identified biochar and biosolids as

promising amendments to improve soil quality and impact tree seedling growth. Previous research has focused on tests and trials involving greenhouse microcosm studies. While these studies are important steps for identifying promising BMPs and mechanisms, field trials are necessary to fully evaluate the effectiveness of soil quality amendment practices. This is especially important for urban setting and vacant lots where soil composition can contain considerable amounts of foreign and construction materials in soil profiles that can impact infiltration and compaction.

The use of cover crops in agricultural settings has shown great ability to improve soil quality issues related to compaction and poor nutrient status. Forage radish (*Raphanus sativus* L. cv. Daikon) has been explored in field applications in agricultural and some urban settings. It has been adopted as a cover crop to address soil quality issues such as compaction (Williams and Weil, 2004), N loss, and erosion (Weil and Kremen 2007, Dean and Weil 2009). Several characteristics make it a promising plant to address urban soil compaction and lack of organic matter issues: forage radish produce a taproot that extend 15 – 30 cm deep and will die and rapidly decompose over winter, leaving taproot holes in surface soils, resulting in less compacted soils with elevated N and P pools.

Cover crops such as forage radish have rapid and dramatic impacts on soil physical properties, setting the stage for accompanying soil chemical and biological improvements (Heneghan et al. 2008, Pavao-Zuckerman 2008). Studies of compost and biochar amendments indicate that it may take repeated applications of amendments through time to see beneficial effects. Moreover, studies have shown the beneficial impact of compost on tree growth and health may take several years to be expressed in measurable tree performance (Oldfield 2014). Due to the dramatic impact on soil physical characteristics and ability to ‘jump-start’ chemical and biological responses (Heneghan et al. 2008), the application of cover crops to urban afforestation settings may result in more rapid amelioration of soil quality issues, and more rapid increases in plant performance. Cover crops, therefore, are an emerging best practice for rehabilitating urban soils targeted for afforestation projects. A goal of this project is to test this assumption using a field study in Baltimore, MD.

Cogger, C. G. Potential compost benefits for restoration of soils disturbed by urban development. *Compost Science & Utilization*, 13(2005) 243-251.

Dean, J, and R. Weil. "Brassica cover crops for nitrogen retention in the Mid-Atlantic Coastal Plain." *Journal of environmental quality* 38.2 (2009): 520-528.

Heneghan, L, et al. "Integrating soil ecological knowledge into restoration management." *Restoration Ecology* 16.4 (2008): 608-617.

Kremer, P., et al. A social-ecological assessment of vacant lots in New York City. *Landscape and Urban Planning*, 120 (2013) 218-233.

McPhearson, T., et al. Resilience of and through urban ecosystem services. *Ecosystem Services* (2014)

Oldfield, E, et al. "Positive effects of afforestation efforts on the health of urban soils." *Forest Ecology and Management* 313 (2014): 266-273.

Oldfield, E, et al. "Growing the urban forest: tree performance in response to biotic and abiotic land management." *Restoration Ecology* 23.5 (2015): 707-718.

Pavao-Zuckerman, M "The nature of urban soils and their role in ecological restoration in cities." *Restoration Ecology* 16.4 (2008): 642-649.

Scharenbroch, B. C. A Meta-analysis of Studies Published in Arboriculture & Urban Forestry Relating to Organic Materials and Impacts on Soil, Tree, and Environmental Properties. *Arboriculture & Urban Forestry*, 35 (2009) 221-231.

Scharenbroch, B.C., et al. "Biochar and biosolids increase tree growth and improve soil quality for urban landscapes." *Journal of environmental quality* 42.5 (2013): 1372-1385.

Shuster, W. D., et al. *Hydropedological Assessments of Parcel-Level Infiltration in an Arid Urban Ecosystem*. *Soil Science Society of America Journal*, 79 (2015) 398-406.

Weil, R, and A. Kremen. "Thinking across and beyond disciplines to make cover crops pay." *Journal of the Science of Food and Agriculture* 87.4 (2007):

Williams, S RR Weil. *Crop cover root*

#### Summary of project goals

The goal of this project is to address research gaps for sustainable urban forests that are specifically linked to improving soil quality for plant performance and the provision of ecosystem services. This research will be conducted in vacant lots, a relatively unexplored, but potentially strong context for expanding the scope of urban forests within many cities, especially our target city, Baltimore, MD. We focus on comparing several approaches to soil treatment and amendments to improve soil quality in these settings. More specifically, we seek to apply and adopt concepts and practices from sustainable agriculture to the practice of urban forestry to meet goals of sustainable urbanism. Ideally these soil amendment practices will help ameliorate urban soil conditions, promote the presence and activity of soil biology, and support the growth of trees within the broader urban forest. This project addresses the urban forest sustainability priority area of soil biology and soil amelioration identified by the TREE Fund and the Science and Research Committee of the International Society of Arboriculture.

To meet these goals we have the following objectives: (1) review current literature on urban soil quality and amelioration, (2) explore the transfer of agricultural best practices for managing soil quality to urban forestry settings, (3) evaluate the impacts of soil amendment practices on soil quality for urban tree growth, and (4) to explore a soil quality minimum/best data set to characterize urban soil characteristics to support plant growth and establishment.

#### Brief description of measurable outcomes expected

This project will produce:

- (1) a quantifiable evaluation of soil amendment practices for urban forests, including the adoption of a technique from sustainable agriculture,
- (2) an assessment of soil quality indices for plant growth and

ecosystem services for urban soils in vacant lots,  
(3) a method applicable to other urban forest settings & locations that is adaptable for academics, industry professionals, and municipal and governmental researchers,  
(4) at least two papers in relevant professional journals (one from the literature review, one from the field study),  
(5) a broader proposal to a federal funding agency (National Science Foundation, US Forest Service/US Department of Agriculture) that leverages this project to expand its scope to include connections between urban forests and soils to ecosystem services such as the mitigation of stormwater, urban heat islands, and enhanced public access to forests in cities,  
(6) the training and mentoring of two graduate students (and their dissertations) and one pre-tenured professor. I have identified Dr. Ray Weil as a Co-Investigator to provide mentoring to meet the goals and objectives of the project. Dr. Weil is a leader in researching and promoting the adoption of more sustainable agricultural systems, and has a research focus on organic matter management for enhanced soil quality for water quality and sustainability. He has been the major advisor for 40 MS and PhD students, and is the author of the most widely used textbook in soil science. I am excited to work with him to translate these ideas to urban forest sustainability.

Project plan including design, hypotheses, methodology and analyses

Overarching Design: This project will be implemented over 3 years. It includes both a field study and a literature synthesis project. For the field study, we will identify field sites in Y1 and establish plots and amendment treatments in Y1. We will measure soil quality variables pre/post treatment in Y1 and establish plants at end of Y1. We will monitor responses of soils and plants to treatments in Y2 & 3.

We will conduct the literature synthesis in Y1, continuing into Y2 if needed. We will start with a broader focus on soil quality in urban settings and narrow the scope to focus on the use of different amendments in urban forests (rather than analyzing a single best practice). The scope will reflect our interests in linking soil quality, afforestation, and ecosystem services. Standard bibliometric approaches will be used to select literature based upon keywords, methodological and, metadata coding of papers (Koricheva et al. 2013). Metanalysis techniques will be used to assess relative treatment effects within the studies we review (Koricheva et al. 2013).

Field Study Hypotheses: We expect that soils in urban vacant lots should be impacted through compaction, decreased infiltration, reduced organic matter and nutrient availability, and limited microbial activity. We hypothesize that the use of soil amendments will improve these aspects of urban soil quality. Further, we expect that the use of cover crops will have a greater impact on soil physical, chemical, and biological soil quality than the other amendments used alone. The significant physical transformation of soil structure by the roots of the cover crop will jump-start transformations of soil chemical and biological aspects of soil quality. The greatest response should be seen in amendments used in conjunction with the cover crop. We hypothesize that microbial activity will be a

stronger indicator of soil response than soil faunal (nematode community) analysis given the short duration of treatments in this study. However, we predict that through time, soil faunal indices will become a stronger indicator of soil response as the soil food web develops. To test these hypotheses, we will use a combination of data types that indicate soil quality and plant growth responses collected before and after the application of a variety of amendment treatments.

**Site Selection:** This project will be conducted in vacant lots located in the city of Baltimore, MD. There is a great abundance of vacant sites in Baltimore (14,000 vacant lots and 16,000 abandoned houses within its border in 2013) and the considerable interest in rehabilitating, reclaiming, and restoring these vacant lots to contribute to ecosystem functioning in cities, an initiative spearheaded by the Baltimore Growing Green Initiative. Four vacant lots will be established as research sites, selecting lots large enough to accommodate multiple treatment plots within each lot. We will select candidate vacant lot sites to control for variables such as: watershed position, age of site (including time vacant), topography, and soil series. Candidate sites will be further assessed visually and through consultation with Baltimore Growing Green Initiative representatives, local community groups, and the Baltimore Ecosystem Study- Long-Term Ecological Research site.

**Treatment and study design:** Within each lot site, 6-100m<sup>2</sup> study plots will be established in which we will apply 6 treatments, one per plot per vacant lot site (giving 4 plots per treatment over the set of lot sites). The amendment treatments that will be tested in this study are: (1) compost, (2) biochar, (3) cover crop (forage radish), (4) combined cover crop with compost treatment, (5) combined cover crop with biochar treatment, and (6) no amendment (control). Treatments will be applied as specified by current best practices for soil amendment applications (compost and biochar at 25 Mg ha<sup>-1</sup> y<sup>-1</sup>, forage radish seeded at 7 kg ha<sup>-1</sup>) in summer of year 1 of the project.

The characteristics of the biochar and compost amendments will be determined at time of application (%C, %N, C:N ratio, electrical conductivity, pH, bulk density). Forage radish characteristics (depth of tap root, above and belowground biomass, %C, %N, C:N ratio) will be determined in late fall but prior to onset of radish-killing temperatures (below -8C) in Y1 using samples collected within two randomly located quadrats (0.25 m<sup>2</sup>) per treatment plot.

We will plant 2 tree species per treatment plot at each vacant lot site in Y2 of the project: Red buckeye (*Aesculus pavia*) and White oak (*Quercus alba*). Trees were selected in consultation of targeted and common native urban tree species for reforestation programs in Baltimore, MD. Inclusion of red buckeye vs. white oak provides a contrast between trees that are small and large at maturity. Saplings 3-5 years old (roughly 0.5 – 1.5 m tall) will be targeted for planting in the study. We anticipate being able to plant 12 individuals of each

species in each treatment plot per vacant lot.

**Sampling and Data Collection:** To assess the “health” of an ecosystem, we will measure key variables and processes. We will combine these ecological characteristics with selected statistical ordination techniques to create indicators of ecosystem health and soil quality that can then be related to plant growth responses. Soil quality indicators have been used primarily conditions leading to the sustainable production of food and fiber, critical “ecosystem services”, by agroecosystems (Andrews and Carroll 2001, Doran and Parkin 1994). Using recommended data sets from recent urban applications (Scheyer and Hipple, 2005, Vrščaj et al. 2008.), we will develop indices of soil quality for urban ecosystem health.

We will sample soils from plots before and after treatments are applied in Y1 and then again in Y2 & 3 – plant monitoring will occur in Y2 & 3 with harvesting of some trees to help estimate treatment effects. Soil samples will be collected twice per year: in the spring, and summer/fall using the following approach:

- 6 samples will be collected at each sampling time in each treatment plot using a randomized grid,
- Each sample will consist of 4 neighboring 2.5-cm diameter soil cores collected to a depth of 25 cm (grouping multiple cores accounts for fine-scale heterogeneity)
- Each of those soil samples will be split into two depths: top 0-5 cm and bottom 5-25cm to account for depth effects of the amendment treatments

Standard soil methods will be applied to these samples to collect data that represent soil quality indices (Robertson et al. 1999). These data will include:

- Soil physical properties: bulk density, texture, infiltration, compaction
- Soil chemical properties: soil organic matter content, total C content, labile C content, N availability, metal availability
- Soil biological properties: microbial biomass, nematode community analysis
- Soil processes: decomposition rates (using cotton strips), soil respiration

Plant samples will be collected using the following approaches:

- Cover Crop: using two randomly located quadrats ( $0.25 \text{ m}^2$ ) per treatment plot, all aboveground and belowground biomass of the forage radish will be harvested at the end of Y1
- Trees: Using the same randomized locations as the soil samples (for each treatment plot for each tree species), we will harvest aboveground and belowground biomass at the end of Y3 – co-location of soil and tree samples will allow analysis of correlation of properties. Additional properties will be measured on standing plants before harvest described below.

We will measure plant growth responses and performance in response to soil treatment and amendments:



- Status (living, dead, missing)
  - Height and diameter at root collar
  - Estimation of crown volume •
- Above and belowground biomass, %C, %N, C:N ratio
- Hyperspectral imagery (with a point&shoot camera to indicate NDVI)
  - Stomatal conductance (as an ecophysiological measure activity)

These soil and plant data sets also are proxies and drivers for ecosystem services (Dominati et al. 2012), allowing us to assess the influence of soil amendments and plant responses to the provision of ecosystem services, such as, C-sequestration (soil C, plant C accumulation), stormwater mitigation potential (infiltration capacity), nutrient retention (available N).

Data Analysis: These data will be integrated into a multivariate statistical model (following Andrews and Carroll 2001) to determine which soil quality variables are the best predictors of plant growth responses. Path analysis and structural equation modeling will be used to trace causality between soil treatments, soil variables, and plant responses. We will use plant growth and health data as response variables in our analysis, and soil quality data as predictor/driver variables.

Andrews, Susan S., and C. Ronald Carroll. "Designing a soil quality assessment tool for sustainable agroecosystem management."

Ecological Applications 11.6 (2001): 1573-1585.

Dominati, E., et al. "A framework for classifying and quantifying the natural capital and ecosystem services of soils." Ecological Economics 69.9 (2010): 1858-1868.

Koricheva, Julia, et al., eds. Handbook of meta-analysis in ecology and evolution. Princeton University Press, 2013.

Robertson, G.P., et al. (eds.). Standard soil methods for long-term ecological research. Vol. 2. Oxford University Press on Demand, 1999.

Scheyer, J., and K. Hipple. Urban Soil Primer. USDA, NRCS, National Soil Survey Center, Lincoln, Nebraska (<http://soils.usda.gov/use>), 2005

Vrščaj, B et al. "A method for soil environmental quality evaluation for management and planning in urban areas." Landscape and Urban Planning 88.2 (2008):

Description of plan for disseminating the results of this project

Results from this project will be disseminated to local and regional community and practitioners interested in urban forestry and soil quality. This will be done in consultation with groups such as the USFS Northeastern Area Urban and Community Regional Coordinator office, Baltimore's Growing Green and TreeBaltimore initiatives and affiliated NGOs. We will work with the University of Maryland Extension program to develop extension documents. We will also work with UM Extension to produce a video related to the project for their YouTube channels (Woodland stewardship and SeaGrant/Watershed Management) and work with Maryland Public TV to host a short video on the subject as well.

Pavao-Zuckerman is an affiliated Co-PI on the Baltimore Ecosystem Long-Term Ecological Research project, and will work with their outreach programs (including, community day, connections with local urban forestry professionals, and connections with local NGOs). We will submit two blog entries on the project (1) to the SSSA "Soils Matter" Blog: <https://soilsmatter.wordpress.com> and (2) to the Future Earth Urban and Global Environmental Change viewpoints blog: <https://ugec.org/viewpoints/>, and will submit an article to the international Society of Arboriculture's Arborist News magazine. Results will also be disseminated in professional journals related to arboriculture, urban forests, and urban ecology. The TREE Fund will be notified to assist with publicizing when findings are published in academic and professional journals, conferences, and extension/outreach materials. We will comply with TREE Fund requirements regarding reporting, requests for web content, and acknowledgement of funding support.

Project start date	01/01/2017
Project completion date	12/31/2019
Geographic range of project	USA & Canada

## Budget

### Compensation/Stipend

Proposed project budget	81349
Requesting from TREE Fund	49882
Funding from other sources	31467
Value of in-kind support from other sources	0

### Employee Benefits

Proposed project budget	48768
Requesting from TREE Fund	32164
Funding from other sources	16604
Value of in-kind support from other sources	0

### Travel (> 50 miles)

Proposed project budget	0
Requesting from TREE Fund	0
Funding from other sources	0

Value of in-kind support from other sources	0
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**Local Transportation (< 50 miles)**

Proposed project budget	900
Requesting from TREE Fund	900
Funding from other sources	0
Value of in-kind support from other sources	0

**Equipment (vehicles, growth chambers, etc.)**

Proposed project budget	0
Requesting from TREE Fund	0
Funding from other sources	0
Value of in-kind support from other sources	0

**Supplies (paper, ink, toner, etc.)**

Proposed project budget	7900
Requesting from TREE Fund	7900
Funding from other sources	0
Value of in-kind support from other sources	0

**Contract Labor (contractor, speaker, etc.)**

Proposed project budget	0
Requesting from TREE Fund	0
Funding from other sources	0
Value of in-kind support from other sources	0

**Other/Misc.**

Proposed project budget	13032
Requesting from TREE Fund	9085

Funding from other sources	3947
Value of in-kind support from other sources	0
Description of other/misc. expenses	10% IDC

**Total**

Proposed project budget	151949
Requesting from TREE Fund	99931
Funding from other sources	52018
Value of in-kind support from other sources	0

Funds already received from other sources	52018
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Funds pending from other sources	0
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Value of in-kind support already received from other sources	0
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Value of in-kind support pending from other sources	0
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How did you hear about this grant?	TREE Fund website Social media (Facebook, LinkedIn)
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Applications will be scored on the following scale:

- Applicant is qualified (10 points)
- Applicant has experience (10 points)
- Project directly meets one or all TREE Fund priorities (10 points)
- Project has clearly stated need (10 points)
- Project is clearly linked to arboriculture and/or urban forestry (10 points)
- Research has practical application (10 points)
- Methods are clear (10 points)
- Objectives are achievable within proposed time frame (10 points)
- Objectives are achievable within proposed budget (10 points)
- Requested funds are matched cash or in-kind (10 points)

**Your application will not be available for editing after it has been submitted.  
Please review your application for completion before submission.**



## Ohio Chapter ISA Education Grant Application

If you have any questions, please email [bduke@treefund.org](mailto:bduke@treefund.org) or call 630-369-8300 x200.  
Applicant

### **Organization**

The Holden Arboretum  
9500 Sperry Road  
Kirtland, Ohio 44094  
United States

Has this organization received previous funding from the TREE Fund? No

Previous TREE Fund awards: none

### **Contact Person**

Mr. Chad Clink  
Community Forester  
[cclink@holdenarb.org](mailto:cclink@holdenarb.org)  
(440) 602-3829

### **Person Responsible for the Project**

Ms. Marian Williams  
Vice President of Education  
[mwilliams@holdenarb.org](mailto:mwilliams@holdenarb.org)  
(440) 602-3811

#### Degrees and related experience

Graduated from Earlham College in 1980 with an interdepartmental degree in Biology-Geology-Education. Pursued an interest in horticulture by taking horticulture and botany courses at Purdue University from 1983 to 1985. In 1987 she received her Master of Science Degree in Educational Psychology from Purdue University.

Thirty years experience in Public Gardens, including Callaway Gardens, Hayes Arboretum and The Holden Arboretum/Cleveland Botanical Garden.

Project title: Forest Immersion XP (FIXP)

Type of request: Project support

#### Description of the project for which funds are requested:

Through a new pilot program, Forest Immersion XP, Holden seeks to increase awareness and interest in the areas of community forestry and arboriculture, by offering a new 2-day program for middle and high school students. Our hope is that at the end of the experience students will better understand the benefits and importance of trees to the community and realize there are a plethora of professional opportunities available in related careers. Day 1 – Students kick-off their full immersion in the forest landscape with a mini-summit on “Why Trees Matter to Me?” to gauge the students’ knowledge and awareness of value of trees. This discussion will lead into an

extensive afternoon-long educational hike through the forests and collections of Holden, including the opportunity to experience Holden's newest forest-immersion structures – the Murch Canopy Walk and the Kalberer Family Emergent Tower. In the evening, students will recap the day, enjoy dinner and the movie "Trees in Trouble," and stay overnight at a camp adjacent to Holden. Day 2 – Students will get a chance to learn through hands-on experiences about the various professional opportunities in community forestry and arboriculture and investigate future academic and educational pathways. During the day, students will interact with groundworkers, climbers, plant health care professionals, and urban foresters. Before departing, students will be asked to reflect on their experience so we may use that valuable feedback to continue to modify and improve this program going forward.

What makes this project unique?

Forest Immersion XP is the first program of its kind in our region to focus on exposing middle and high school students to possible career paths in community forestry and arboriculture through immersive and experiential learning amongst the trees. It is our hope that by drawing students from different school districts, we will provide these teens with some positive social benefits as well, such as meeting new people in a unique setting and making new friends.

Why is it needed?

In the areas of community forestry and arboriculture, there are few opportunities at the middle and high school level to learn more about these important fields of work. The lack of educational opportunities and awareness of these possible career paths will eventually have a negative impact on the industry: there will be market demand for these positions but few viable candidates to fill these jobs. We hope by piquing their interest early, students will continue to pursue job opportunities they had learned about in the Forest Immersion XP experience, and realize that while physically-demanding, these are all jobs every man and woman can do. Also, our region is starting to implement the Cleveland Tree Plan, which has a goal of re-foresting Cleveland and its surrounding community – taking the existing tree canopy from 19% to 40% over the next 20 years. This effort will reverse the negative effects of tree canopy loss on the environment, energy usage, noise pollution, public health, and neighborhood decline. By engaging students in understanding the importance and benefits of trees, we hope they will elect community forestry and arboriculture as a meaningful and worthwhile career that will support the ambitious Tree Plan.

Description of what outcomes are expected as a result of this project:

There are four main outcomes we hope to achieve as part of this pilot program: Increase the number of students served in our region so that they may become stewards for a greener future; offer workforce development opportunities for area youth, as well as provide skilled workers in all areas of arboriculture and community forestry to meet market demand in our region; increase participation in Holden's Tree School program and its all-day student workshop, the Tree Summit; and, take the feedback we received from this pilot program to further refine it so that can then be expanded over time. These outcomes are in alignment with our new Strategic Plan that speaks to our united vision, a vision not for our organization per se, but rather for the world we will help to create, where our communities are greener and more vibrant than before. Through these outcomes, Holden will provide increased awareness of the importance of trees, as well as the array of professional opportunities dedicated to the cultivation and maintenance of trees.

At least 3 measurable goals to determine the success of this project:

Three measurable goals we expect to reach in our first year of the program are the following: 1) Increased school enrollment in Holden's Trees Matter School Program. This certification program is an award for an individual school or campus that requires annual recertification along

with several other requirements for distinction, including establishing a Tree Advisory Committee at the school that is comprised of teachers, students and grounds staff; offering educational tree activities such as a school-wide celebration of Arbor Day; a Memorandum of Understanding from the school board detailing the district's commitment to the program; the development of a campus-wide Tree Care Plan; and a presentation at the Trees Matter annual celebration event, The Tree Summit, where students and their school representatives come together to honor the importance of trees as well as celebrate the successful completion of the program certification. 2) Expansion of the program due to increased interest in participation from schools, Girl Scout and Boy Scout troops, etc. 3) 100% survey participation by all students. So that we may create the best forest immersion experience for our students, we will ensure that each participating student is surveyed and feedback received before the experience comes to an end. This crucial information will help instructors as well as the director of education fine tune the program to make it even more appealing to schools and students.

#### Method for assessing achievement of project goals:

In an effort to meet the goals we've set for this project, we plan to promote this new program to school districts throughout Cuyahoga, Lake, Geauga and Ashtabula counties in Northeast Ohio that are currently or have recently taken advantage of field experience programs at either both our Holden Arboretum and Cleveland Botanical Garden campuses. We also plan on promoting this program in the quarterly publication mailed to our more than 20,000 member households, the majority of whom live in the targeted counties. We will also do a year-to-year comparison analysis to see if participation in The Holden Trees Matter School increases after the first year of the Forest Immersion XP program launch. Lastly, surveying our student participants will be an integral part of the camp experience and all feedback will be taken into account when planning future camps. If feedback is positive, and participation robust, plans will be put into place to offer one or more additional camps in future years.

#### Plans for sustaining the project after the grant:

We hope to present this funding opportunity to other potential funders, including corporate as well as foundation prospects, which have funding priorities in the areas of education, workforce development, conservation and sustainability issues, and arboriculture/urban forestry. We also plan to ask a select group of our most committed supporters who find forwarding the mission of The Holden Arboretum important to help make this new project possible.

Project start date: 02/01/2017

Project completion date: 09/30/2017

#### Timeline:

Pre February - set program date and line up instructors and develop 2 day agenda. Develop marketing plan and send limited information to schools.

February/March - Heavy program marketing and begin program registration.

April/May - program to be held late April/Early May

May/June - Evaluate and refine program.

July/Aug./Sept - determine how to expand program and begin to secure funding.

Is this a new project for your organization?

Yes

#### Project Budget:

Total project budget: \$10,000

Amount requested: \$5,000



## **Other Sources of Funding**

### **Source 1**

Name

Amount requested

Amount received or committed

### **Source 2**

Name

Amount requested

Amount received or committed

### **Source 3**

Name

Amount requested

Amount received or committed

### **Source 4**

Name

Amount requested

Amount received or committed

### **Organization:**

Date of organization's incorporation: 08/21/1967

Summary of organization's history, mission and goals:

Established in 1931, The Holden Arboretum is an outdoor living museum. Accredited by the American Association of Museums, Holden contains scientifically-curated collections of trees and shrubs displayed in themed gardens and natural areas. Comprising more than 3,600 acres in Lake and Geauga counties, Holden also protects its neighboring properties by managing 1,489 acres of conservation easements. In 2014, The Holden Arboretum merged with the Cleveland Botanical Garden to create the 12th largest public garden in the country. In 2016 the unified organization, with more than 20,000 household members in total, adopted its first joint Strategic Plan as well as its new mission and vision that promises vibrant green communities and diverse native forests of the Great Lakes region and beyond will flourish and sustain life.

List of other organizations in your area with a purpose similar to your organization and description of collaboration, if appropriate: Cleveland Metroparks, Lake Metroparks, Case Western Reserve University (all research partners)

Organization Budget:

Fiscal year start date: 10/01/2016

### **Current Year's Budget**

Total organization budget: \$7,525,000

Organization fundraising costs: \$211,575

Organization administrative costs: \$7,099,000

### **Next Year's Projected Budget**

Total organization budget: \$7,590,000

Organization fundraising costs: \$211,575

Organization administrative costs: \$6,990,000

### **Principle Source of Support**

Please provide figures as a percentage of the organization's total budget. The total support should equal 100.

United Way: 0

Government contract: 1

Foundation or corporate: 11

Earned income: 63

Individual contributions: 25

Total support: 100

Applications will be scored on the following scale:

- Relevant staff are qualified (10 points)
- Project increases knowledge in arboriculture or urban forestry (25 points)
- Project is hands-on (15 points)
- Need is defined (15 points)
- Objectives are clearly stated and adequately assessed (15 points)
- Timeline is feasible (10 points)
- Budget is clear and reasonable for the project (10 points)

**Your application will not be available for editing after it has been submitted.**

**Please review your application for completion before submission.**



September 14, 2016

Mr. Will Nutter  
Trustee and Chairman of the Audit Committee  
The TREE Fund  
552 South Washington Street  
Suite 109  
Naperville, Illinois 60540

We are pleased to confirm our understanding of the services we are to provide for The TREE Fund for the year ended December 31, 2016.

We will audit the financial statements of The TREE Fund, which comprise the statement of financial position as of December 31, 2016, the related statement of activities, functional expenses, and cash flows for the year then ended, and the related notes to the financial statements (the financial statements).

#### **Audit Objective**

The objective of our audit is the expression of an opinion about whether your financial statements are fairly presented, in all material respects, in conformity with U.S. generally accepted accounting principles. Our audit will be conducted in accordance with auditing standards generally accepted in the United States of America and will include tests of your accounting records and other procedures we consider necessary to enable us to express such an opinion. We will issue a written report upon completion of our audit of The TREE Fund's financial statements. Our report will be addressed to the Board of Trustees of The TREE Fund. We cannot provide assurance that an unmodified opinion will be expressed. Circumstances may arise in which it is necessary for us to modify our opinion or add an emphasis-of-matter or other-matter paragraph. If our opinion is other than unmodified, we will discuss the reasons with you in advance. If, for any reason, we are unable to complete the audit or are unable to form or have not formed an opinion, we may decline to express an opinion or withdraw from this engagement.

#### **Audit Procedures**

Our procedures will include tests of documentary evidence supporting the transactions recorded in the accounts, tests of the physical existence of inventories, and direct confirmation of receivables and certain assets and liabilities by correspondence with selected individuals, funding sources, creditors, and financial institutions. We will also request written representations from the Organization's attorneys as part of the engagement, and they may bill you for responding to this inquiry. At the conclusion of our audit, we will require certain written representations from you about the financial statements and related matters.





An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements; therefore, our audit will involve judgment about the number of transactions to be examined and the areas to be tested. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements. We will plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether from (1) errors, (2) fraudulent financial reporting, (3) misappropriation of assets, or (4) violations of laws or governmental regulations that are attributable to the Organization or to acts by management or employees acting on behalf of the Organization.

Because of the inherent limitations of an audit, combined with the inherent limitations of internal control, and because we will not perform a detailed examination of all transactions, there is a risk that material misstatements may exist and not be detected by us, even though the audit is properly planned and performed in accordance with U.S. generally accepted auditing standards. In addition, an audit is not designed to detect immaterial misstatements or violations of laws or governmental regulations that do not have a direct and material effect on the financial statements. However, we will inform the appropriate level of management of any material errors, any fraudulent financial reporting, or misappropriation of assets that comes to our attention. We will also inform the appropriate level of management of any violations of laws or governmental regulations that come to our attention, unless clearly inconsequential. Our responsibility as auditors is limited to the period covered by our audit and does not extend to any later periods for which we are not engaged as auditors.

Our audit will include obtaining an understanding of the Organization and its environment, including internal control, sufficient to assess the risks of material misstatement of the financial statements and to design the nature, timing, and extent of further audit procedures. An audit is not designed to provide assurance on internal control or to identify deficiencies in internal control. However, during the audit, we will communicate to you and those charged with governance internal control related matters that are required to be communicated under professional standards.

### **Other Services**

We will prepare the Organization's federal and state information returns (Form 990 and AG990-IL) for the year ended December 31, 2016, based on information provided by you. We will prepare the Organization's federal Form 5500. We will also prepare the financial statements of the Organization in conformity with U.S. generally accepted accounting principles based on information provided by you.

We will perform the services in accordance with applicable professional standards, including the Statements on Standards for Tax Services issued by the American Institute of Certified Public Accountants. The other services are limited to the financial statement and tax services previously defined. We, in our sole professional judgment, reserve the





right to refuse to perform any procedure or take any action that could be construed as assuming management responsibilities. We will advise management with regard to tax positions taken in the preparation of the tax return, but management must make all decisions with regard to those matters.

### **Management Responsibilities**

You are responsible for establishing and maintaining internal controls, including monitoring ongoing activities; for the selection and application of accounting principles; and for the preparation and fair presentation of the financial statements in conformity with U.S. generally accepted accounting principles. You are also responsible for making all financial records and related information available to us and for the accuracy and completeness of that information. You are also responsible for providing us with (1) access to all information of which you are aware that is relevant to the preparation and fair presentation of the financial statements, (2) additional information that we may request for the purpose of the audit, and (3) unrestricted access to persons within the organization from whom we determine it necessary to obtain audit evidence.

Your responsibilities include adjusting the financial statements to correct material misstatements and confirming to us in the management representation letter that the effects of any uncorrected misstatements aggregated by us during the current engagement and pertaining to the latest period presented are immaterial, both individually and in the aggregate, to the financial statements taken as a whole.

You are responsible for the design and implementation of programs and controls to prevent and detect fraud, and for informing us about all known or suspected fraud affecting the Organization involving (1) management, (2) employees who have significant roles in internal control, and (3) others where the fraud could have a material effect on the financial statements. Your responsibilities include informing us of your knowledge of any allegations of fraud or suspected fraud affecting the Organization received in communications from employees, former employees, grantors, regulators, or others. In addition, you are responsible for identifying and ensuring the Organization complies with applicable laws and regulations.

You agree to assume all management responsibilities for the tax services, financial statement preparation services, and any other nonattest services we provide; oversee the services by designating an individual, preferably from senior management, with suitable skill, knowledge, or experience; evaluate the adequacy and results of the services; and accept responsibility for them.

### **Engagement Administration, Fees, and Other**

We understand that your employees will prepare all cash, accounts receivable, and other confirmations we request and will locate any documents selected by us for testing.

Jeff Schroeder is the engagement partner and is responsible for supervising the engagement and signing the report or authorizing another individual to sign it. We expect



to begin our audit prior to the end of February, 2017, and to issue drafts of the financial statements prior to March 31, 2017.

We estimate that our fees for the audit will not exceed \$10,000. We estimate that our fees for the preparation of the information returns (Form 990 and AG990-IL) will not exceed \$2,000. We estimate that the fees for the preparation of Form 5500 will not exceed \$500. The fee estimate is based on anticipated cooperation from your personnel and the assumption that unexpected circumstances will not be encountered during the engagement. If significant additional time is necessary, we will discuss it with you and arrive at a new fee estimate before we incur the additional costs. Our invoices for these fees will be rendered each month as work progresses and are payable on presentation.

We appreciate the opportunity to be of service to you and believe this letter accurately summarizes the significant terms of our engagement. If you have any questions, please let us know. If you agree with the terms of our engagement as described in this letter, please sign the enclosed copy and return it to us.

Yours very truly,

Sassetti, LLC

RESPONSE:

This letter correctly sets forth the understanding of the TREE Fund. .

\_\_\_\_\_  
Will Nutter

\_\_\_\_\_  
Chairman of the Audit Committee, Trustee

\_\_\_\_\_  
Date