



Application :: AZ / Forest Pathway

Submitted on Sep 15, 2017

Applications

FY 2018 Landscape Scale Restoration Competitive Program	File Name		
	State:	AZ	Keyword: Forest Pathway
	Region:	R03	Priority: 1 Id:
	Administration Information		
	Funds Requested:		\$300,000
	Match:		\$300,000
Score:	Ranking:	Project Funding:	\$1,255,200

Lead Applicant Information [AZ]				
1	State Forestry Agency:	Arizona Department of Forestry and Fire Management		
	Contact Person:	Alix Rogstad		
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	City:	Phoenix	State:	AZ
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Project Information																						
2	Descriptive Title of Project:	Tucson Forest Pathway: Proactively Repurposing Remnant Parcels with Trees																				
	Partnering Agencies and/or Organizations:	<table border="1" style="width: 100%;"> <tr><td>1</td><td>Tucson Clean and Beautiful /Trees for Tucson (TCB)</td></tr> <tr><td>2</td><td>Pima Association of Governments (PAG)</td></tr> <tr><td>3</td><td>Regional Transportation Authority (RTA)</td></tr> <tr><td>4</td><td>City of Tucson (COT), Dept of Transp (TDOT), SunTran (bus), Tucson Water (TW)</td></tr> <tr><td>5</td><td>Tucson Bike Share (TBS)</td></tr> <tr><td>6</td><td>Banner Health Systems (BHS)</td></tr> <tr><td>7</td><td>Pima County Native Plant Nursery (PCNPN)</td></tr> <tr><td>8</td><td>Grant Road Coalition (5 Neighborhood Associations) (GRC)</td></tr> <tr><td>9</td><td>Grant Road Green Team (GRGT)</td></tr> <tr><td>10</td><td>Business Sponsors (5 confirmed sponsors; more anticipated)</td></tr> </table>		1	Tucson Clean and Beautiful /Trees for Tucson (TCB)	2	Pima Association of Governments (PAG)	3	Regional Transportation Authority (RTA)	4	City of Tucson (COT), Dept of Transp (TDOT), SunTran (bus), Tucson Water (TW)	5	Tucson Bike Share (TBS)	6	Banner Health Systems (BHS)	7	Pima County Native Plant Nursery (PCNPN)	8	Grant Road Coalition (5 Neighborhood Associations) (GRC)	9	Grant Road Green Team (GRGT)	10
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	Project Duration:	<input type="checkbox"/> One Year	<input type="checkbox"/> Two Years																			
			<input checked="" type="checkbox"/> Three Years																			
	Is this a Multi-state project? Check "yes" if you want to submit the same proposal with multiple state budget requests. If yes, use the Applicants menu item to add other states/islands. This allows you to work on the same proposal with each applicant requesting funds.		<input type="radio"/> YES or <input checked="" type="radio"/> NO																			

GIS Coordinates

Ref. Point Name:
Lat/Long:
Description:

2

Area Name: Tucson Forest Pathway Project
Boundary Lat/Longs: 32.250, -110.982; 32.250, -110.982; 32.251, -110.893; 32.251, -110.893

Grant Road Improvement District

Description:

National Relevance		
<input checked="" type="checkbox"/> Conserve Working Forest Landscapes	<input type="checkbox"/> Protect Forests from Harm	<input checked="" type="checkbox"/> Enhance Public Benefits from Trees and Forests
<p>3</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> High priority forest ecosystems and landscapes are identified and conserved. <input checked="" type="checkbox"/> Forests are actively and sustainably managed. 	<ul style="list-style-type: none"> <input type="checkbox"/> Fire-adapted lands are restored and risk of wildfire impacts is reduced. <input type="checkbox"/> Threats to forest and ecosystem health are identified, managed and reduced. 	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Water quality or quantity is protected or enhanced. <input checked="" type="checkbox"/> Air quality is improved or energy is conserved. <input type="checkbox"/> Communities plan for and reduce their risks from wildfire. <input checked="" type="checkbox"/> The economic benefits and values of trees and forests are maintained or enhanced. <input checked="" type="checkbox"/> Wildlife or fish habitat are protected, conserved or enhanced. <input checked="" type="checkbox"/> People are connected to trees and forests and are engaged in environment stewardship activities. <input checked="" type="checkbox"/> Trees and forests are managed and restored to help mitigate or adapt to changing conditions.

5 points. 500 characters including spaces.

Provides a succinct and relevant overview; could easily be used to communicate critical elements and value of the project.

Project Overview

4 Funded by a 1/2% voter approved Tucson sales tax, ongoing improvements along 5 miles of a major east-west intercity roadway requires phased property acquisition leaving remnants. This project will develop a linear forest park to buffer neighborhoods and provide access to urban trees, walkways, and transit by using remnants for green space. A demonstration site will be created, enhanced by sponsored amenities and a loop to Banner Hospital will encourage doctor-prescribed walks.

Grand Total							
	Grant Funds Requested	Leverage ¹			Source 3 rd Party Contributor/s	TOTAL Total Project Cost	
		Match Applicant	Non-Federal Contributors	Non-Match Applicant, Non-Federal, and/or Federal			
5	Personnel / Labor:	\$22,000				\$22,000	
	Fringe Benefits:	\$10,340				\$10,340	
	Travel:	\$3,150				\$3,150	
	Equipment:						
	Supplies:	\$2,104				\$2,104	
	Contractual:						
	Construction:						
	Consolidated ² :		\$153,200			\$153,200	
	Other:	\$250,000		\$146,800	\$655,200	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	\$1,052,000
	Indirect Costs ³ :	\$12,406					\$12,406
	TOTAL:	\$300,000	\$153,200	\$146,800	\$655,200		\$1,255,200

¹ Leverage includes all three categories: match, non-match, and source. Funds qualifying as "match" must meet the same program requirements as grant funds (e.g., program authorities, non-federal sources). Other "non-match" leveraged funds do not need to meet the same standards (e.g., may include funds for construction, funds from other federal partners). Partnership with other USFS programs outside of State & Private Forestry, as well as other federal and state programs is encouraged.

² If any part of your match requirement is being covered through a consolidated payment grant (i.e. state spending of non-federal funds on activities that meet S&PF program authorities but are not tied to this proposal), please place it here.

³ Indirect costs must be tied to an established rate. Waived indirect costs are an acceptable source of match.

Applicant Budget [AZ]							
	Grant Funds Requested	Leverage ¹			Source 3 rd Party Contributor/s	TOTAL Total Project Cost	
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15 points. 2000 characters including spaces.

Context clearly identifies priority landscapes and issues that are being addressed. Goals and objectives address the national themes being addressed by the project.

Context, Goals, and Objectives

PRIORITY LANDSCAPES & ISSUES: Arizona's low desert metropolitan areas account for 82% of Arizona's population and experience the highest temperatures. Urban forests are identified as high priority landscapes for their ability to improve air quality, reduce heat islands, and improve quality of life. Tucson's average urban forest canopy is 8%, though the City's goal is 20% canopy cover by 2030. Reaching this goal will require community engagement, green infrastructure, and creative solutions to urban transit needs.

GOAL: Provide the resources and tools to plan and develop a critical urban linear forest, sustainably managed as multi-use community open space with green infrastructure.

OBJECTIVES:

1. Complete an urban forest inventory and site assessment of 5-mile project area; identify remnant parcels feasible for public open space.
2. Complete a Return on Investment to determine value of open space vs. other land uses.
3. Facilitate neighborhood and stakeholder engagement to identify and incorporate preferences into 10-year Green Belt/ Stewardship Plan, the strategic vision for open space sustainability and stewardship.
4. Create a demonstration site that restores forest functions, enhances wildlife habitat/corridors, and increases canopy cover through green infrastructure techniques that harvest stormwater.
5. Establish community-based volunteer site stewardship through public outreach, trainings, and events.
6. Deliver conservation education through site features, interpretive signage and site-based events.

NATIONAL THEMES:

This project meets two national themes. An urban forest assessment (values determined using iTree suite) will be completed, and the linear forest will be sustainably managed under a Stewardship Plan.

Public benefits are enhanced through accessibility to urban linear trails (utilized through doctor-prescribed activities), reduced traffic noise and air pollution in residential areas, and opportunities for engagement and education.

20 points. 3000 characters including spaces.

Clearly describes with specificity, activities to be completed with grant funds and leveraged resources. Links specific project activities to funding amounts in the Project Budget and to stated project goals and objectives.

Proposed Activities

Obj. 1. Complete an urban forest inventory and site assessment of 5-mile project area; identify remnant parcels feasible for public green space. (Timeline: Months 01-03; Partners: DFFM, TCB, PAG, TDOT; Grant: \$22,000; Match: \$39,500) DFFM and

PAG inventories existing forest using GIS, iTree, and LiDar data from aerial surveys; TDOT identifies remnant parcels; TCB evaluates remnants for green space potential.

Obj. 2. Complete a Return on Investment (ROI) analysis to determine value of green space versus other land uses. (Timeline: Months 03-06; Partners: TCB, TBS, TDOT/SunTran, BHS; Grant: \$26,000; Match: \$36,500) Prepare green infrastructure/urban linear forest ROI analysis. Disseminate findings through public meetings, TCBs website, and earned/social media; reference for future road projects. TBS, SunTran and BHS provide locally relevant data for ROI analysis.

Obj. 3. Facilitate neighborhood and stakeholder engagement to identify and incorporate preferences into 10-year Green Belt / Stewardship Plan, the strategic vision for green space sustainability and stewardship. (Timeline: Months 02-08; Partners: TCB, DFFM, GRC, GRGT; Grant: \$36,900; Match: \$35,800) TCB hosts broad community charrettes creating a Green Belt/ Stewardship Plan and concept plan for a multi-use, linear urban forest demonstration site. GRC and GRGT contribute neighborhood input and long-term site stewardship.

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Obj. 4. Create demonstration site that restores forest functions, enhances wildlife habitat/corridors, and increases canopy through stormwater harvesting green infrastructure; site managed by nonprofit and volunteer stewards. (Timeline: Months 09-20; Partners: TCB, DFFM, RTA, TDOT/SunTran, TBS, PCNPN, Business Sponsors; Grant: \$130,200; Match: \$740,200) TCB, with partners, installs passive water harvesting, irrigation and linear forest; PCNPN provides vegetation. Businesses sponsor benches; SunTran and TBS establish on-site transit stations.

Obj. 5. Establish community-based volunteer stewardship through public outreach, trainings, and events. (Timeline: Months 21-26; Partners: TCB, GRGT; Grant: \$24,400; Match: \$56,600) Train and recruit volunteers for site maintenance using TCBs existing Adopt-A-Public Space program; GRGT monitors site conditions and green infrastructure performance, TCB trainings and public workshops maintain green infrastructure. Celebrate volunteer activity and disseminate site data through social media and on TCBs website.

Obj. 6. Deliver conservation education through site features, interpretive signage and site-based events. (Timeline: Months 26-36; Partners: TCB, DFFM, PAG, TW, TBS, TDOT, BHS; Grant: \$60,500; Match: \$46,600) Develop/install interpretive and wayfinding signage describing benefits of urban linear forests, green infrastructure, and active transportation. Signage contributed by DFFM, PAG, TW, TCB, BHS, TBS. Promote healthy lifestyles through doctor-prescribed activities and community events.

15 points. 2000 characters including spaces.

Defines deliverables and outcomes which will achieve the national themes addressed by the project. Provides clear, quantitative measures of success.

Deliverables and Outcomes

Obj 1. Complete urban forest inventory and site assessment

- Completed forest inventory and mapping for 5-mile project area.
- 50 acres of remnant parcels assessed for viability as open space.

Obj 2. Complete a ROI analysis and synthesis

- Completion of a regional report that evaluates the public benefit of park space.
- Report published online reaching 5,000 people.

Obj 3. Facilitate neighborhood and stakeholder engagement to identify and incorporate preferences into 10-year Green Belt/ Stewardship Plan.

- 2 public meetings held; 250 residents and stakeholders engaged.
- Completion of a concept plan and design for a multi-use linear park.
- 10-year Green Belt/Stewardship plan completed with long range goals and priorities for forest improvements within the project area.

8 - A permanent citizens involvement group from the stakeholder planning process will meet quarterly to ensure institutional memory, oversight, and stewardship of linear forest.

Obj 4. Create demonstration site

- Site preparation completed for linear forest and multi-use space.
- Install (temporary) irrigation, plant groves of trees (200 trees and 100 plants), and install 7 water harvesting basins. 5 workshops will train 75 volunteers in green infrastructure installation.

Obj 5. Establish volunteer site stewardship

- Recruit, train, and supply 15 site stewards from current and potential stakeholders (neighbors, student groups) through email, social media, participation in stakeholder process and word of mouth.
- Host 4 green infrastructure maintenance days including tree pruning; 4 trainings, 60 participants.
- 20 acres linear urban forest maintained by volunteer stewards and TCB.

Obj 6. Deliver conservation education through site features, signage and events

- 11 Interpretive signs covering urban forest functions, passive harvesting strategies to sustainably support trees, how trees reduce air pollution and cool the city, and wayfinding to support physical activity.

15 points. 2000 characters including spaces.

Project uses coordination and partnerships with complementary state and federal programs to improve outcomes. Clearly describes how partners are committed and will add value during project development and implementation. Collaboration will clearly result in a successful cross-boundary

project.

Collaboration/Cross Boundary

The Tucson Forest Pathway concept was first proposed and published as a white paper by the Grant Road Coalition, a group of adjacent neighborhood associations. This proposal, with wide-based support, takes advantage of a 5-mile, large-scale, roadway improvement and a hospital expansion to bring recreational and public health amenities to multi-ethnic inner city urban neighborhoods.

Partners include state/local government representatives; local/regional transportation authorities; local businesses; and residents. Primary partners (TCB, DFFM, RTA COT & GRC) lead the 6 project objectives by: (1) conducting technical assessments in the project area; (2) completing a ROI analysis and synthesis; (3) facilitating multi-year stakeholder engagement; (4) creating a demonstration site; (5) establishing and strengthening volunteer-driven stewardship; and (6) developing public outreach/ education materials and public events.

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TCB will be the local lead to ensure all project objectives are met through direct and contracted services; and will contribute ~\$13K match in labor and equipment. PAG will provide ~\$9K in-kind match for LiDar data, mapping support and educational signs. PCNPN will provide trees and plants (~\$13K value).

RTA will provide \$655K leverage through lien forgiveness on the demonstration site remnant parcels; the COT/TDOT/SunTran/ TW will provide \$39K match for meeting space, bus stop/shelter installation, and interpretive and wayfinding signage. TBS will establish a bike share station at the demonstration site (value ~\$18K match). GRC will provide ~\$4K in-kind match through stakeholder engagement, and the GRGT will provide ~\$15K match for site stewardship. Business sponsors will contribute ~\$31K match for benches and site amenities.

BHS will provide ~\$10K in match for pertinent health data and assistance developing health education signage, as well as time committed by doctors to prescribe walks/outdoor activities that utilize the linear forest.

10 points. 1250 characters including spaces.

Clearly describes the need for the proposed project and relates it to one or more priority landscapes, issues, areas, or strategies identified in the Forest Action Plan.

Forest Action Plan Integration

The project promotes and sustains an urban linear forest targeting high priority activities intersecting multiple critical foci of Arizonas Forest Action Plan (2010): People and Forests, Ecosystem Health, Water and Air, and Climate Change. The project also integrates multiple DFFM programs: Urban/Community Forestry, Forest Health, Stewardship and Conservation Education.

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Key tasks outlined in this project support a variety of priorities identified in the state plan:

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- Improve access to forests and trees for healthy lifestyles, recreation and education (Objs. 1,2,3,4,5,6)
- Build sustainable urban forestry programs as part of community core functions (Objs. 2,3,4,5)
- Engage people in community-based environmental stewardship activities (Objs. 3,4,5,6)
- Protect and enhance wildlife habitat and promote establishment of wildlife corridors (Objs. 1,2,3,4)
- Integrate collaborative planning processes and public education into urban development (Objs. 1,2,3,4,5,6)
- Enhance urban forests to improve air quality (Objs. 1,2,3,4)
- Assist communities in planning for and improving access to trees (Objs. 1,2,3,4,5,6); and
- Collaboratively develop outreach and education programs on urban tree and water issues (Objs. 3,4,5,6)

10 points. 1250 characters including spaces.

Scale of the project is clearly based on and is appropriate for the stated goals, objectives, and outcomes including cross boundary goals. The scale is sufficient to address the national theme and priority landscape and issues.

Meaningful Scale/Cross Boundary

Strategic long-term urban forest planning in metro areas is needed in arid regions. Trees improve livability in a hot/dry desert. Tucson has excellent natural amenities on the edges (National Forest, National Monument, National Park, Conservation Lands, etc.), but less access to native landscapes in the interior. Creating tree corridors east/west across the city improves wildlife habitat and corridors and increases public access to native forest.

1

1 This project occurs along 5-miles of multi-lane roadway adjacent to residential properties exposed to traffic sounds and deleterious air quality. Protection and enhancement of this urban linear forest produces local and regional benefits. The urban forest assessment enables cross boundary collaboration to address critical issues within the City of Tucson Ward 3 and its neighborhoods; the assessments support city and regional tree and shade planning efforts. The stakeholder engagement activities, including doctor-prescribed walks, demonstrate community involvement for future roadway development, and the installed linear forest is a regional example for community development and road enhancement that incorporates green infrastructure and healthy lifestyle amenities.

10 points. 1250 characters including spaces.

Project clearly results in skills and enhanced capability that extend beyond the life of the project. Project displays how this investment will lead to a specific, quantifiable, cost effective, replicable benefit that addresses national themes.

Sustainability of Outcomes

Development of the Tucson Forest Pathway is a unique opportunity. Through this project, the remnant parcels will be managed

by a local non-profit, and used as a training/demonstration site for urban forestry development with storm water harvesting. The Stewardship Plan for the project site will provide strategic guidance for future maintenance in the project area.

- 1 A variety of water harvesting elements will be on display accompanied by interpretive signage. These elements will be maintained by TCB through ongoing trainings and workshops, and by neighborhood stewardship groups, exemplifying a public/
- 2 private model for developing and maintaining landscapes by non-profits in a long term sustainable way.

Use of the walking paths and trails will be encouraged by nearby Banner Health hospital through doctor-prescribed activities geared toward healthy lifestyle habits. A multimodal hub within the demonstration site will combine bus access, bike share and pedestrian paths while providing shaded urban open green space. Access to attractive and safe amenities for residents, patients, transit users and others will increase the value of the linear urban forest and enhance the environmental services provided and available in Tucson.