Proposal Details

G Hendrix

Section 1: Summary Information

*** Project Title:**	USF Campus Tree Mapping
*** Duration (months):**	24
*** Total Budget ($):**	$31,500.00
*** Requested SGEF Funds ($):**	$31,500.00
*** Matching Funds ($):**	$0.00
*** Proposed Starting Date:**	1/1/2018
PI Graduation Date (if applicable):	

Section 2: Applicant Information

	Full Name	Unit/Department	Phone	Email
*** Principal Investigator**	Ashley Denslow	Student	386-882-46	adenslow@mail.usf.edu
Investigator 1	Kebreab Ghebremichael	Patel Ctr for Global Solutions	813-974-90	kebreab@usf.edu
Investigator 2	Desai Nainan	Assistant Director : Planning	813-974-24	ndesai@usf.edu
Investigator 3	Shuang Hao	Facilities Project Manager : Planning	813-974-06	shuanghao@usf.edu
Investigator 4	Justin Jimenez	Student	jjimenez5@mail.usf.edu	305-218-18

Section 3: Project Description

*** Project background and purpose (reasons motivating request) (Max 500 words)**

This proposal is requesting funds from the SGEF council to complete a tree mapping project that is already underway. Through funding from the Florida Forest Service, The Patel College of Global Sustainability has been able to inventory close to 10,000 trees on campus in the past 2 years and develop an interactive tree map via a web based mobile app called Open Tree Map. The inventory collects information such as diameter, height, species type, precise geographic location and an image of each tree using different digital instruments. The data is then compiled and mapped on a digital platform. The interactive tree map then calculates the ecological benefits of the trees such as the energy conserved, storm water filtered, air quality improved, carbon dioxide reduced and overall money saved. This information is then freely available to the public and can be used to demonstrate sustainability initiatives at USF and will be used as a tool for research and education. The overall goal is to continue this project with SGEF funds and inventory 100% of the trees on the USF campus.

*** Project activities (Max 250 words)**

The inventory collects information such as diameter, height, species type, precise geographic location and an image of each tree using different digital instruments. The data is then compiled and mapped on a digital platform. The interactive tree map then calculates the ecological benefits of the trees such as the energy conserved, storm water filtered, air quality improved, carbon dioxide reduced and overall money saved. This information is then freely available to the public and can be used to demonstrate sustainability initiatives at USF and will be used as a tool for research and education. The proposal also plans to place tree plaques in selected locations to enhance education aspects of trees and to promote awareness among the USF community. This is beneficial to disseminate information of ecological benefits of trees and help protect and preserve the green areas of the campus.

*** Project results (Max 500 words)**

This project has a great return on investment in terms of facilitating campus tree management, enhancing sustainability reporting, and providing an excellent educational and research platform. It will improve USF's visibility among the nation's sustainable campuses. A database that is supported by a visual description is a vital asset to the management of green areas on campus.This will become a cost-effective way of planning for the maintenance and expansion of tree cover.

*** Outcomes of the project (Max 250 words)**

It will help develop strategies to reduce USF's GHG emissions and diversify tree species for optimal ecosystem services.It will aid USF's sustainability reporting efforts, where the data will be used for estimating GHG captured, air quality improved and storm water stored.Its rich information can be used for education and research at USF in several colleges that benefit student and faculty.It will serve as a useful source of information for USF's tree care planning, documenting, and for the annual application for Tree Campus USA designation.It will be vital tool for the planning and operation of the Grounds Department at Facilities Management and serve as a basis to plant more trees and enhance the green cover of the campus.

*** Annual Energy Savings**	0 kWh
Annual Cost Savings	$0.00
Return of Investment in %	0.00
Annual Green House Gas Reduction	0.00

*** Project Sustainability (Max 200 words)**

Our team has already discussed the long-term tree mapping operation and maintenance of the database with Facilities Management staff, who has agreed to maintain the database once a complete inventory has been established. Shuang Hao, a landscape architect and arborist from Facilities Management, has been trained on how to use the Tampa Tree Map tool and data collection instruments. The staff has also been granted editor privileges to the tool that will allow the department to update the database when trees are removed or new trees are planted.

Section 4: Workplan and Budget Details

*** Detailed work plan/schedule of activities (Max 250 words)**

The density and waterlogged nature of these areas will require students to work in pairs and it will take more time compared to the areas previously mapped. Therefore, we expect to map these areas over a 2-year period with a group of students working an average of 10 hours a week. In addition to the inventory work this will also require fine tuning of the data and correction of any errors based on desktop work.

*** Budget breakdown**

Category	Request from SGEF	Applicant contribution	Total
Personnel (include all involved)	$24,960.00	$0.00	**$24,960.00**
Equipment	$3,600.00	$0.00	**$3,600.00**
Supplies/Materials	$0.00	$0.00	**$0.00**
Contractual	$1,440.00	$0.00	**$1,440.00**
Construction	$0.00	$0.00	**$0.00**
Other (specify in budget justification)	$1,500.00	$0.00	**$1,500.00**
Total Project Cost	**$31,500.00**	**$0.00**	**$31,500.00**

*** Budget justification (Max 250 words)**

The $1500 is 5% contingency.

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