# **RDL 1 Form**

Date Submitted:	4/19/04

#### ACE Workgroup date: October TBD

1. F	Requestor:	James R. Garey
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# 2. Description of Project alignment with USF Mission and purpose of Project:

The GeoPark aligns with all four facets of the USF Mission listed on the USF Website: teaching, research, service, and community engagement.

**Teaching**: The GeoPark is, has been, and will forever be, a teaching resource. It has been used for classroom laboratories in the field by both the Geology Department and the Environmental Science and Policy Department; demonstrations by local environmental geophysical companies; expositions put on by the Geological Alumni Society. With the signage developed with the SWFWMD Community-education grant, the teaching will expand to the broader university community, including visitors to the Botanical Gardens.

**Research**: Already, the sinkhole at the GeoPark has provided vital insight about the subsurface anatomy of a sinkhole, the structure in the sand mantle above sinkholes, and the significance of sinkholes in the recharge to the Floridan aquifer. With additional wells, and outfitting them with recorders in the future – all of which will happen as we continue along the trajectory that has already been established – the site will continue to contribute insights to the environmental hydrogeology of the covered karst terrain, which Tampa's urban sprawl is encountering.

**Service**: Included in USF's responsibility to the community are discovering and spreading knowledge concerning matters vital to the well being of our citizens. What is more vital than water? Add to that the Florida environment, and interaction of urban development with the geological substrate. These are the educational themes that the GeoPark will bring to the community. At the same time, we hope, the GeoPark will provide a welcome haven within our ever-too-busy campus. Noteworthy, too, is the fact that this quiet, renewing area is available with only a short walk to patients and families at Hope Lodge, Moffitt Cancer Center and Shriners Hospital for Children.

**Community engagement**: By definition, the Geology Alumni Society and the Community Education Grant from SWFWMD bespeak of community

engagement. You might enjoy visiting the GeoPark web page and noting the response of the community to the APB put out by the Geology Department to show up one cold December Saturday morning to help mulch some pathways. As it has become known that we are developing signage for the outdoor educational facility, volunteers have joined our task force from the U.S. Geology Survey, the Department of Environmental Protection, and SWFWMD, and we haven't yet begun to ask for input.

3. Camp	5. Campus: (check one)		
Х		Tampa	
		Sarasota	
		St. Petersburg	
		Lakeland	

## 4. Physical Boundaries (see graphic attachment: Figure 1)

The research sinkholes, the wells, and "The Rock" lie nicely in the small area labeled ABCDEFGA in aerial photograph of Figure 1. The northeast boundary corner (A) is the intersection of the turnoff to the Medical Center from Magnolia Dr. The southwest corner (C) is 440 ft south of the drainage canal (along the western part of AB) and 208 ft west of the parking lot at D, which is 120 ft south of the northwest corner of the parking lot (E). The enclosed area is 5.3 acres. At a minimum, we request this area (ABCDEFGA) for the Geology Alumni Society GeoPark.

More expansively, we note that the open space and Florida-friendly vegetation extend through the area to the southwest to the corner (H) of Alumni Drive and Pine Drive (front entrance to Shriners Hospital for Children). This area is indicated by the larger outline AHIJEFGA on Figure 1, and covers 15.8 acres. It also contains sinkholes (most notably an exquisite one labeled "deep sinkhole" in Fig. 1). This larger area, which abuts against the Botanical Gardens, would contain the exposition site in its northeastern corner and be a bridge – eventually with mulched pathways – between the Botanical Gardens and the exposition site. More ambitiously, then, we request this larger area (AHIJEFGA) for the Geology Alumni Society GeoPark.

## 5. Acreage: 5.3 to 22

#### 6. Fund Source of Study: SWFWMD

**Scope of Work:** The community-education grant from SWFWMD to develop the GeoPark into a community-education facility is administered with a purchase order that reads as follows:

This project will educate approximately 1,000 USF GeoPark and Botanical Gardens visitors on sinkholes, the hydrologic system, stormwater runoff, and Florida-friendly vegetation and its relation to the hydrology. Education will be accomplished through signage, brochures, fliers and kiosks located at the GeoPark and the Botanical Gardens. In addition, educational workshops and self-guided tours will be conducted at these sites. All materials and products resulting from this grant will acknowledge the Hillsborough River Basin Board of the Southwest Florida Water Management District and are subject to review and approval by the District's Project manager. Funds are released on a reimbursement basis only. Final report due July 30, 2004.

The signage referred to in the purchase order will be mostly at the GeoPark (we anticipate 4-6 signs, depending on cost). The kiosks with the brochures (including a self-guided tour looping over to the GeoPark), and one sign, will be at the Botanical Gardens. We anticipate that the signs will be ~ 3 ft by ~4 ft, inclined low to the ground, fiberglass, like signs at National Parks. For more details, including the subjects of the signage, please see the attached proposal that was submitted to SWFWMD.

Two signs might be of particular interest to USF Administration: (1) Concerning the stormwater drainage ditch along the north side of the GeoPark – Stormwater drainage in a karst (sinkhole-ridden) terrain is of great interest and relevance to water management in this part of Florida, and so the sign will explain the geological and hydrological reasons for policies about such things, and how USF complies with them; (2) Concerning the hydrologic community – USF is one of several places with educational exhibits developed under the SWFWMD Community Education program, and so one sign will include a map of the Hillsborough River Basin with arrows pointing out other water- and environment-related displays (e.g., Lettuce Lake Park; the Florida Aquarium; Hillsborough River State Park). Both of these signs underscore how the GeoPark can promote USF's role as an environmental leader in our community.

**7. Impact to Campus Master Plan:** The GeoPark takes the best piece of the Master Plan and makes it better. How many urban universities have a Greenway (Fig. 2) that goes from one end of the campus to the other? The Greenway enhances the University in the same way that the National Mall enhances Washington DC. It is something that USF can be proud of. The GeoPark will add tasteful, educational signage, near the southwest anchor of the Greenway. In a quiet, modest way, the GeoPark will add an outdoor museum element to it.

**9. Maintenance Requirements:** Maintenance is expected to increase only marginally as improvements outlined in the proposal (mostly signage) are implemented.

Approval by:			



Figure 1. Requested area for Geology Alumni Society GeoPark. ABCDEFGA is small area of approximately 6 acres. ABHIJDEFGA is larger area of approximately 16 acres