The University of Texas at Austin Green Fee Committee Final Report 2012-2013

Executive Summary

The second full year of Green Fee grant activity featured more efficiency projects for campus and increased usage of campus as a research focus. Interest in waste reduction and energy efficiency was strong, and students and staff jointly launched more campus beautification projects. The Committee selected new members and amended the bylaws to establish a new timeline of service. The program established precedents for moving funds from one department to another when the Orange Bike Project was offered sponsorship in Parking & Transportation, and also reallocated funds when an original grantee withdrew from a project. Finally, for the first time, a few projects either did not launch or did not fully complete their objectives, causing funds to be withdrawn back into the main Green Fee account.

List of Projects and Grant Amounts

The *amount expended* is for fiscal year 2012-2013 only and does not include amounts that rolled over into September 2013 and continue to accrue expenditures. Projects that were funded in September 2011 and continued into fiscal year 2012-2013 are indicated in this section as well.

Projects Funded in September 2012

Original Proposal Name Replacing Impermeable Surfaces on Campus Grantee Names and Affiliations Jenna Hartin (student) Original Funded Amount \$55,100 Amount Expended \$44,032 Administrative Department(s) Office of Sustainability, Project Management & Construction Services Duration September 2012-February 2013

Original Proposal Name Air Quality Sensor Suites in Welch Labs Grantee Names and Affiliations Kevin Bone (student, Geosciences) Original Funded Amount \$50,000 Amount Expended \$50,000 Administrative Department(s) Facilities Maintenance Duration September 2012 – November 2013

Original Proposal Name Green Roof for the Ladybird Johnson Wildflower Center Grantee Names and Affiliations Andrea Delong-Amaya (staff, Wildflower Center) Original Funded Amount \$44,637 Amount Expended \$0 Administrative Department(s) Ladybird Johnson Wildflower Center Duration September 2012 - present, timeline amended

Original Proposal Name Optimization of the Campus Cooling System to Reduce Energy Usage Grantee Names and Affiliations Kody Merlin Powell (graduate, Chemical Engineering) Original Funded Amount \$36,300 Amount Expended \$20,064 Administrative Department(s) Chemical Engineering Duration September 2012 – November 2013

Original Proposal Name Resource Consumption Visualization Project Grantee Names and Affiliations Riley Triggs (faculty, Art & Art History) Original Funded Amount \$36,100 Amount Expended \$4,217 Administrative Department(s) Art & Art History Duration September 2012 – present, timeline amended

Original Proposal Name Green Points Pilot Grantee Names and Affiliations Jim Walker (staff, Office of Sustainability) Original Funded Amount \$32,000 Amount Expended \$0 Administrative Department(s) Office of Sustainability Duration Cancelled in May 2013 and funds returned to main account.

Original Proposal Name School of Music Landscape Beautification Grantee Names and Affiliations Aimi Tanada (student, Music & Environmental Science) Original Funded Amount \$30,000 Amount Expended \$0 Administrative Department(s) Office of Sustainability Duration September 2012 – current, timeline extended

Original Proposal Name UT MicroFarm Year II Grantee Names and Affiliations Daniella Lewis (student, Architecture) Original Funded Amount \$19,862 Amendment \$7,850, December 2012 Amount Expended \$19,530 Administrative Department(s) Office of Sustainability Duration September 2012-August 2013

Original Proposal Name Campus Environmental Center Year II Grantee Names and Affiliations Kristin Lee (student, LBJ School of Public Policy); Faith Shin (student, Psychology) Original Funded Amount \$27,100 Amount Expended \$12,956 Administrative Department(s) Facilities Services Duration September 2012-August 2013

Original Proposal Name Analysis of Processed Algae as an Organic Fertilizer for UT, Year II Grantee Names and Affiliations Rhykka Connelly (staff, Center for Electromechanics) Original Funded Amount \$26,117 Amount Expended \$30,852 Administrative Department(s) Center for Electromechanics Duration September 2012-August 2013

Original Proposal Name Outreach Forum for Green Fee Projects Grantee Names and Affiliations Eric James (staff, Environmental Science Institute) Original Funded Amount \$5,150 Amendment \$7,500 Amount Expended \$9,743 Administrative Department(s) Environmental Science Institute Duration September 2012-August 2013

Original Proposal Name PTS Bike Programs: Bike to UT Day, Increase Bike Parking Grantee Names and Affiliations Sam Cortez (staff, Parking & Transportation Services) Original Funded Amount \$15,500 Amount Expended \$9,433 Administrative Department(s) Parking & Transportation Services Duration September 2012-August 2013

Original Proposal Name Bikes for Environmental Scientists: Sustainable Transport for a Sustainable Degree Grantee Names and Affiliations Deborah Salzberg (staff, Environmental Science Institute) Original Funded Amount \$12,000 Amendment \$2,500 Amount Expended \$10,516 Administrative Department(s) Parking & Transportation Services Duration September 2012 – August 2013

Original Proposal Name UT Tree Nursery Grantee Names and Affiliations Vlad Codrea (graduate student) Original Funded Amount \$9,360 Amount Expended \$8,680 Administrative Department(s) Campus Environmental Center Duration September 2012 – August 2013

Original Proposal Name Energy Field Trip – UTeach Outreach Grantee Names and Affiliations Mary Miller (staff, UTeach Outreach) Original Funded Amount \$8,140 Amount Expended \$5,121 Administrative Department(s) College of Natural Sciences Duration September 2012 – August 2013

Original Proposal Name Styrofoam Recycling Pilot Grantee Names and Affiliations Karen Browning (faculty, Chemistry & Biochemistry) Original Funded Amount \$7,200 Amount Expended \$2,563 Administrative Department(s) Chemistry and Biochemistry Duration September 2012 – present; timeline and budget amended

Original Proposal Name Occupancy Sensors in McCombs Business School Grantee Names and Affiliations Sarah Cunningham (student, Environmental Science) Original Funded Amount \$5,635 Amount Expended \$1,894 Administrative Department(s) Office of Sustainability, Facilities Maintenance Duration Original portion September 2012 – February 2013; amended portion June 2013 - present

Original Proposal Name Shower Timers in Jester Residence Hall Grantee Names and Affiliations Lauren Tien (student, Environmental Science) Original Funded Amount \$2,600 Amount Expended \$899 Administrative Department(s) Office of Sustainability, Division of Housing & Food Service Duration September 2014 – August 2013

Original Proposal Name Composting at Darrell K. Royal Stadium Grantee Names and Affiliations Lauren Womack (student, Government & Environmental Science) Original Funded Amount \$2,500 Amount Expended \$1,365 Administrative Department(s) Office of Sustainability Duration August – December 2012

Original Proposal Name Longhorn Band Recycling & Waste Reduction Grantee Names and Affiliations Tess McKenna (student, Music) Original Funded Amount \$2,500 Amount Expended \$0 Administrative Department(s) Butler School of Music Duration September 2012 – present; timeline amended

Original Proposal Name Waller Creek Beautification Grantee Names and Affiliations Ezequiel Calderon, Jr. (student, Business) Original Funded Amount \$1,000 Amount Expended \$0 Administrative Department(s) Office of Sustainability Duration Cancelled October 2013 and funds returned to account

Projects Funded in September 2011, Continuing

Original Proposal Name Solar Charging Stations Grantee Names and Affiliations Megan Archer, W. Austin Jorn, Eric Swanson (undergraduates) Rollover Amount \$43,760 Amount Expended \$42,565 Administrative Department(s) Office of Sustainability Duration September 2011-present; new grant in 2013

Original Proposal Name Safe Cycling Campaign Grantee Names and Affiliations Kate Bedford (graduate student) Rollover Amount \$20,728 Amount Expended \$3,384 Administrative Department(s) Office of Sustainability, School of Architecture Duration September 2011-December 2012

Original Proposal Name Fountain Retrofits Grantee Names and Affiliations Pat Mazur, Karen Blaney (staff) Rollover Amount \$5,195 Amount Expended \$276 Administrative Department(s) Facilities Maintenance Duration September 2011-February 2013

Original Proposal Name UT Tree Nursery Grantee Names and Affiliations Vlad Codrea (graduate student) Rollover Amount \$1,747.66 New Funds \$9.360.00 (wages) Amount Expended \$9,659.89 Administrative Department(s) Campus Environmental Center, Ladybird Johnson Wildflower Center Duration September 2011-present



Nick Kuzola monitors the Styrofoam collection, November 2012.

Committee Membership

Corinne Wong, Chair (At-Large) graduate studies, Geosciences Collin Poirot, Vice-Chair (Student Government) College of Communications & Plan II Jay Banner (Provost) Donna Bellinghausen (Student Affairs) Leo Chen (Student Government) McCombs School of Business Victor Harris (Campus Environmental Center) Government Samantha Hermitte (Graduate Student Assembly) LBJ School of Public Policy Steven Moore (Provost, spring stand-in for Dr. Banner) Collin Roland (At-Large) Environmental Science Jim Walker (Operations)

Committee Activity

Points of Process & Procedural Decisions

There were a few major changes within the Committee procedures in 2012-2013. The Committee changed the bylaws to establish a member's term of service from October to the following August, with September being the primary solicitation and new appointment month. The second change was to implement a sub-granting program for research, with awards consisting of \$2500 for undergraduates and \$5000 for graduates with the condition that the researcher be overseen by a host department and that the research be reviewed by a faculty member.

The Committee also agreed to drop the custom of having the applicants apply anonymously. The lack of information on individuals and departments for the first two cycles made it difficult to assess whether funds were being distributed among students, staff, and faculty, and which departments were receiving the most funds. There was also some lack of ability to assess whether the projects were feasible and likely to succeed without knowing the members of the grantee teams and their affiliations.

The Committee established a policy of non-response after one of the projects (a proposed partnership with Zimride) did not respond to the conditional offer of funding. The policy states that should the Committee not receive any acknowledgement of the offer of funding within 30 days of an offer, the funding may be withdrawn. If the funding is offered conditionally and acknowledged, but the grantee does not respond to the conditions within 90 days, the award may also be withdrawn. Stricter language was added to the application about ensuring that the contact information provided therein is good for the date of submission through the following August (in this case, March-August 2013).

The Committee used the online project management system called Basecamp to share files during the year. The Committee also approved the hire of a Green Fee-focused intern within the Office of Sustainability (the intern was funded through Sustainability and not Green Fee, but the primary focus was helping keep projects on track).

Granting Timeline

The majority of 2012 funded projects received their funding in September 2012, and a surplus was identified. Additional funds were granted to existing projects before the annual call for proposals in January 2013. The call for proposals included prompts to apply around themes such as recycling, water, and research.

Funding Decisions Summary & Lessons Learned

The following are quick fire observations and suggestions from this year's funding cycle.

- The application booklets and instructions worked well. The onus was put on the applicants to prepare a single review document for each application, which made assembly easier.
- The number of applications (39) made it difficult for all nine reviewers to read all applications. Five people at minimum were assigned to score each application. While helpful in terms of workload, the assignments were confusing and it probably would have been helpful for more people to be familiar with the applications to ask questions about them.
- The intent was to score the applications with fewer readers so that some could be more quickly dropped from consideration, if there was a consensus that the application was not strong. The actual result was that very few were dropped; most were funded, even conditionally.



Project Results

General Comments & Lessons Learned

Twenty-one projects were offered and accepted funding in May 2012 for start dates around September 2012. There was one additional project, a roof garden, that was offered funding but the grantee team did not respond to the offer. Eighteen projects either completed work or continued into 2013-2014, and three were cancelled.

Overall, a few major themes stood out. Projects with physical changes to campus (see next section) require a significant amount of Project Management & Construction Services oversight, and may also require additional funding to accommodate that oversight. Related to this, projects that alter campus features continued to be difficult for students to feel engaged with. Projects like motion sensors or

landscape alterations mostly hold the satisfaction of having proposed a good idea; it is difficult for students to be hands on with making the changes.

Physical Changes to Campus

Physical changes were a dominant theme this year. The list of changes and their completion date is as follows:

UT tested new construction materials with a permeable concrete installation at San Jacinto Garage: this was successfully installed by April 2013. It did not use all the available funds because the square footage was smaller than originally proposed.

Air Quality Sensors in WEL Labs were installed as a small-scale pilot test of a particular air quality measurement system (Aircuity. The project was completed in October 2013, slightly into the new fiscal year.

The MicroFarm on Leona Street broke ground in November 2012, after nearly a year of leadership changes and soil testing. The area rapidly transformed from a nondescript vacant lot into a vibrant and attractive garden. The MicroFarm also became a testing ground for procedures on student- and faculty-led changes to campus, as first a student-designed pallet shed was disallowed for not following construction safety procedures, and then a second student design, for creative reconstruction of a pre-fabricated shed, was modified and left incomplete for the MicroFarm employees to finish.

More bike racks were purchased by Parking & Transportation Services throughout the year as part of their Green Fee funded bicycle programs.

Shower timers (small digital displays) were added to Moore-Hill showers to encourage reduction of water use. These were installed in the spring semester of 2013.

A Green Roof project was launched at the Ladybird Johnson Wildflower Center. It suffered delays due to unexpected PMCS oversight (a structural engineering review was called for that was unanticipated by the proposal, and the funding had to be found to complete and stamp the review), so the construction schedule was pushed into the next fiscal year.

Similarly, a landscape rehabilitation and improvement project was launched on the west side of the Music Building & Recital Hall of the Butler School of Music. The project was reviewed by Larson & Burns, an architecture firm, and the analysis revealed major erosion and sinkage problems for the site. Between deciding an approach to these problems that would marry the cosmetic and structural, and the university's pursuit of a Landscape Master Plan, the project was delayed until the next fiscal year.

Two of the cancelled projects would have made improvements to campus. The Bat House proposed by Environmental Health & Safety would have been installed at Centennial Park. However, the rapidly approaching medical school and the concerns about maintenance caused the proposal to be cancelled before funds were spent. By contrast, the Waller Creek Beautification project funded for only \$1,000 was directed to build a coalition for major improvements to the area of the creek between the Alumni Center and the new Liberal Arts building on 23rd St. While the students had several meetings and made connections, no new proposal was ever offered to the Committee and the funds were eventually withdrawn. The potential for restoring that area, which was used at one time for gatherings and leisure, remains unfulfilled.

Academic and Research Outcomes

A few projects had significant academic and research outcomes. The Processed Algae as Fertilizer project continued into a second year with a second grant, and ultimately proved that the dead algae would improve soil health for campus grass and planting areas. A student group in the Cockrell School of Engineering designed and tested software to monitor the cooling system of a campus chilling station; they presented on their research at conferences and had the benefit of interacting with Utilities staff to improve their project.

The UTeach Outreach field trips continued into a second year, developing additional curriculum for the K-12 tours and creating video trainings for the incoming student teachers. The ESI Outreach project produced more videos about Green Fee projects, and hosted a first-of-its-kind environmental justice lecture by Dr. Robert Bullard from Texas Southern University. Finally, the Resource Consumption & Visualization project proposed by Riley Triggs in Art & Art History (Design) gave students and faculty the opportunity to flex design and user experience (UX) knowledge to create original visualizations of campus energy consumption. The project experienced some delays while arrangements for access to campus data were made, and as of August 2013 the visualizations were not public.

Student Employment & Volunteerism

Nine projects provided opportunities for paid student employment and an additional few provided direct student engagement without pay. The highest amount of student involvement, representing a few students for long-term (2-semester+) positions, are in the Campus Environmental Center, the MicroFarm, UTeach Outreach, and Orange Bike programs. The students working for these programs coordinate dozens of visitors and volunteers in their various programs. The research projects for the Chilling Station Optimization, Algae as Fertilizer, and Resource Consumption also provided student employment that added to their academic portfolios. Styrofoam Recycling and the ESI Outreach Forum also provided campus jobs that contributed directly to sustainability improvements.

Non-paid student leadership also formed an important part of this year's projects. Students were a driving force behind the School of Music Landscape Rehabilitation (despite lack of actual progress), Shower Timers at Moore-Hill, Composting at DKR Stadium, and Longhorn Band Recycling. None of the students were paid, yet they encouraged their peers and led by example to promote water use savings and waste diversion. The Longhorn Band consists of nearly 400 students who became more aware of recycling and personal consumption through receiving reusable water bottles and increasing recycling and composting in their regular operations.

This year also illustrated a problem with student engagement when projects are proposed with heavy project management oversight, such as the permeable concrete installation, the air quality and occupancy sensors in Welch and McCombs, the green roof at the Wildflower Center, the increase in bike parking and (should it have gone ahead) the bat house at Centennial Park. All of these projects were construction or installation-based and required professionals in various fields to carry out the physical requirements of the project. This left little room for current students to be directly involved. To some extent, the students have to be satisfied with the physical change to campus and its foreseeable impacts, rather than the satisfaction of a hands-on installation. The university is unlikely to ever allow commercial products to be permanently installed by students.

Campus Engagement

Staff engagement for this group of projects was relatively low. The 2011 water bottle filler project carried over, but did not need or receive new funds in this cycle. Staff and the campus community were engaged in the following ways:

- Project oversight was provided for the permeable concrete installation, new bike racks, occupancy sensor installation, installation of shower timers, and the new green roof at the Wildflower Center.
- Utilities & Energy Management staff collaborated with students for the Chilling Station Optimization project.
- Staff proposed or co-proposed five projects. Two did not go forward due to unavoidable conflicts with other administrative areas: the Green Points mobile phone app would have been a major campus engagement initiative, but the administrative and legal questions about the app were unresolvable in a reasonable timeframe. The Bat House fell victim to future land use planning for the whole university.
- Faculty proposed or co-proposed four projects, all of which proceeded essentially as planned.
- The ESI Outreach Forum successfully carried out a public lecture with Dr. Robert Bullard from Texas Southern University, which was open to the whole community.
- The Campus Environmental Center coordinated tailgate recycling for the football season, engaging student, staff, faculty, and community fans.
- Styrofoam recycling reached a new audience in the research labs, targeted at labs that receive a certain type of refrigerated samples in hard Styrofoam packaging.
- The Orange Bike Project added a rental option for short-term rentals (approximately 5 days), which made the program more appealing to faculty and campus visitors, including incoming students and their parents.

Waste and Energy Use Reduction

The following is a list of projects with a relationship to creating reductions in energy, water, and waste, and the status of their measurable outcomes at the end of the projects. Overall, while these projects had some benefit to campus, they illustrated the need for better measurement.

- Air Quality Sensors in WEL Labs one of the more successful projects, the sensors decrease the number of air changes in a lab according to how much and what type of particulate matter is in the air. The sensors were installed in October of 2013.
- **Chilling Station Optimization** while this project provided a valuable research experience for a handful of graduate and undergraduate students, the model was not able to produce a significant energy savings calculation (the station was far too efficient on its own) and therefore the software was never applied.
- **Green Roof at Wildflower Center** the installation was not complete at the end of the year; no savings calculated to date.
- Campus Visualization/Resource Consumption This is another academic/theoretical project using actual campus data. Should a visualization dashboard be produced and linked to real-time campus data, incentives for savings could be created from there. But the dashboard was not completed by the end of the grant year and an amendment was proposed to extend into 2013-2014.

- **Styrofoam Recycling** provided an option for official Styrofoam disposal for the first time. The program ran in December 2013 through August 2014 and was extended for a second year. The first year's collection averaged 235 lbs. per month (according to the measurement by HDi plastics).
- Occupancy Sensors at McCombs this project put in occupancy sensors to reduce light usage in eighteen classrooms. The actual dollar savings are low but are in concordance with the overall campus goal of 20% energy reduction by building by 2020. The unused funds for this project were passed along to the newly formed Energy & Water Conservation Program and channeled into a pilot test of lighting controls at the Harry Ransom Center, where lights would sometimes be left on for days at a time. Data review immediately after installation showed a dramatic drop in energy usage at the HRC, and the collections are also less vulnerable to light damage.
- Shower Timers in Moore-Hill a student led effort to install small digital timers in showers, backed by an informational sign encouraging students to reduce water by timing their own showers (voluntarily). The digital timers were not connected to the water flow. Issues arose with communicating with the users once the timers were installed; the grantees did not live in Moore-Hill and it was difficult to enlist the focused cooperation of the resident assistants. There was also not a lot of time in one spring semester to run a campaign. Finally, the timers themselves did not stand up to the frequent usage and constantly wet environment, even though the product had been well-researched. The water savings were minimal, although the pilot was valuable in terms of lessons learned.
- **Composting at DKR Stadium** also a successful project due to the dedication of a few student volunteers, the composting program expanded from the North End Zone to the UT Club kitchen during each home football game. The amount of compost collected in 2012 doubled in size from 2011, and the program effectively demonstrated that it was possible to compost the kitchen materials. Composting has been continued throughout the year in the Club kitchen.
- Longhorn Band Recycling this project helped instill a culture of waste reduction in the Longhorn Band by providing compost and recycling at band events (pre-game meal, practice, game day) and giving each band member a reusable, labeled bottle to use during the year. The band also increased its paper collection at the end of each semester.

Financial Review

Main Account Budget

FY 2011-2012 had a rollover of \$114,731.30, primarily due to not granting the full amount of available funding. Income for September 2012 was \$506,975. This was the first year of contingency funding, a \$20,000 reserve created for projects that may incur expenses due to UT-Austin requirements for oversight, safety, management, or other similar eventualities. \$25,000 was reserved for the Coordinator salary and \$8,200 was budgeted for publicity and to 'buffer' project expenses purchased with a university procurement card. Therefore, \$53,000 was reserved for administrative purposes.

The projects in 2012 were projected to expend \$503,090 with the majority of funds drawing on the new 2012 income; some projects also had rollover funds from previous years.

The main Green Fee account concluded the year with a positive balance of \$76,776 including \$3,271 of unspent 'buffer' funds, \$18,000 in contingency and \$55,505 in project funds.

Record of Transfers

This table is for project costs only and does not include the administrative funds described above.

20120901	TRANSFER FROM 1951008695	INTRAFND TRANSFER IN C	\$506,975.00	Annual Income
20120901	BALANCES FORWARD-2	ROLLOVER	\$114,731.30	Rollover
20120913	1986405375-1986405395	TRANSFER FROM ACCOUNT	\$7,500.00	Amendment to Solar Stations
20120914	1986405395-1986406420	TRANSFER FROM ACCOUNT	(\$12,102.00)	MicroFarm Wages
20120914	1986405395-1974231295	TRANSFER FROM ACCOUNT	(\$22,187.00)	Initial Algae as Fertilizer Transfer
20120914	1986405395-1917683495	TRANSFER FROM ACCOUNT	(\$8,140.00)	Uteach Outreach Field Trips
20120914	1986405395-1902301850	TRANSFER FROM ACCOUNT	(\$10,860.00)	Campus Env Center Supplies
20120914	1986405395-1902301820	TRANSFER FROM ACCOUNT	(\$19,550.00)	Campus Env Center Wages
20120914	1986405395-1986406450	TRANSFER FROM ACCOUNT	(\$7,760.00)	MicroFarm Supplies
20120920	1986405395-1900156195	TRANSFER FROM ACCOUNT	(\$12,000.00)	Orange Bike Daily Rental Program
20120920	1986405395-1900156095	TRANSFER FROM ACCOUNT	(\$6,050.00)	Orange Bike Project Supplies
20120926	1986405395-1986407650	TRANSFER FROM ACCOUNT	(\$1,000.00)	Waller Creek Beautification
20120926	1986405395-1986407350	TRANSFER FROM ACCOUNT	(\$5,635.00)	Occupancy Sensors in McCombs
20120926	1986405395-1986407250	TRANSFER FROM ACCOUNT	(\$50,000.00)	Air Quality in Welch Labs
20120926	1986405395-1986406950	TRANSFER FROM ACCOUNT	(\$32,000.00)	Green Points Phone App Program
20120926	1986405395-1986406850	TRANSFER FROM ACCOUNT	(\$55,100.00)	Permeable Surfaces
20120926	1986405395-1986407450	TRANSFER FROM ACCOUNT	(\$30,000.00)	School of Music Landscaping
20120928	1986405395-1974231295	TRANSFER FROM ACCOUNT	(\$3,930.00)	Amendment to Algae as Fertilizer
20120928	1986405395-1972501095	TRANSFER FROM ACCOUNT	(\$39,543.00)	Green Roof at Wildflower Center
20120928	1986405395-1917163195	TRANSFER FROM ACCOUNT	(\$7,200.00)	Styrofoam Recycling Pilot
20120928	1986405395-1917300395	TRANSFER FROM ACCOUNT	(\$9,000.00)	ESI Outreach Forum
20121012	1986405395-1986407795	TRANSFER FROM ACCOUNT	(\$2,600.00)	Shower Timers in Moore-Hill
20121012	1986405395-1934652495	TRANSFER FROM ACCOUNT	(\$2,500.00)	Compost at DKR Stadium
20121012	1986405395-1930255895	TRANSFER FROM ACCOUNT	(\$31,300.00)	Chilling Station Optimization
20121018	1986405395-1934906595	TRANSFER FROM ACCOUNT	(\$36,100.00)	Campus Visualization (Design)
20121018	1986405395-1986405495	TRANSFER FROM ACCOUNT	(\$43,760.00)	Solar Charging Stations - second
				phase
20121022	1902301820-1986405395	RETURN TO ACCOUNT	\$5,200.00	Return from CEC, Excess Wages
20121022	1986405595-1986405395	RETURN TO ACCOUNT	\$4,620.71	Return from Waller Creek
			A 1 1 A A A	Invasives, 2011 unused funds
20121022	1986406295-1986405395	RETURN TO ACCOUNT	\$1,490.00	Return from Bicycle Parking, 2011 unused funds
20121206	1917300395-1986405395	RETURN TO ACCOUNT	\$4,675.00	Return from ESI Outreach, 2011
				unused funds
20121218	1986405395-1930255895	TRANSFER FROM ACCOUNT	(\$5,000.00)	Amendment, Chilling Station Optimization
20121218	1986405395-1917300395	TRANSFER FROM ACCOUNT	(\$8,000.00)	Amendment, ESI Outreach
20121218	1986405395-1900156250	TRANSFER FROM ACCOUNT	(\$15,500.00)	Increase Bike Parking, PTS
20121218	1986405395-1986406450	TRANSFER FROM ACCOUNT	(\$7,850.00)	Amendment, MicroFarm Supplies
20121218	1986405395-1972501095	TRANSFER FROM ACCOUNT	(\$5,094.00)	Amendment, Green Roof at WFC
20121218	1986405395-1900156195	TRANSFER FROM ACCOUNT	(\$2,500.00)	Amendment, Daily Rental Program
20120201	1086405750-1096405250	RETURN TO ACCOUNT	¢13 594 30	rij
20130201	GEN		φ13,304.20	Return Hom Sale Cycling Campaign 2011 unused funds
20130304	1986405395-1986405450	TRANSFER FROM ACCOUNT	(\$7,500,00)	Amendment Solar Charging
20100004			(\$1,000.00)	Stations

20130311	1986405390-3631234751 GEN	CONTINGENCY USE	(\$2,000.00)	Contingency, MicroFarm site preparation
20130521	1986406950-1986405395	RETURN TO ACCOUNT	\$32,000.00	Return, Green Points Program unused funds
20130624	1986405395-1986407995	TRANSFER FROM ACCOUNT	(\$5,000.00)	Biodiesel Assessment Study
20130802	1986405395-1917721095	TRANSFER FROM ACCOUNT	(\$5,000.00)	Drought Tolerant Plants Research
20130808	1986405395-1902301895	TRANSFER FROM ACCOUNT	(\$39,950.00)	Campus Environmental Center
				Programs (2013)
20130830	1986405395-1986405650	TRANSFER FROM ACCOUNT	(\$1,000.00)	LBJ Green Dining
20130830	1986405395-1917163195	TRANSFER FROM ACCOUNT	(\$9,500.00)	Styrofoam Year II
20130830	1986405395-1930956595	TRANSFER FROM ACCOUNT	(\$2,500.00)	Piezoelectricity Research
20130830	1986405395-1914107495	TRANSFER FROM ACCOUNT	(\$500.00)	Thermal Lab Admin Grant
20130830	1986405395-1986406520	TRANSFER FROM ACCOUNT	(\$9,360.00)	Tree Nursery Wages Year III

Financial Status of Projects

Projects That Used Full Funding, No Amendments

Air Quality Sensors in Welch Labs (Aircuity). The vendor, Aircuity, agreed on the overall budget with UT-Austin and used the entire amount, similar to the utility sensors in the Honors Quad in 2011-2012.

Analysis of Processed Algae as an Organic Fertilizer appeared to use more than allocated, in fact; the Green Fee was not asked for additional funds after the beginning of the year, so the Center for Electro-Mechanics must have assumed the additional cost.

Amended Projects

Solar Charging Stations (from 2011) received an amendment of \$7,500 to assist with the cost of an oncampus workshop for solar design.

The Algae as Organic Fertilizer project received an amendment of \$3,930 to support undergraduate student workers.

Similarly, the Chilling Station Optimization project received an amendment of \$5,000 to support their graduate and undergraduate student workers.

The Green Roof at the Wildflower Center project received an amendment of \$5094 to support unexpected engineering review costs required by UT Austin. Contingency was not used in this case because funds were available in the main account.

The Daily Rental program in Parking & Transportation Services, Orange Bike Project was amended for \$2,500 to support an additional student worker.

The MicroFarm received an amendment of \$7,850 and a contingency fund of \$2,000 to support site preparation costs required by UT-Austin, primarily soil remediation to ensure safety.

ESI Outreach received \$8,000 to support a lecture on environmental justice for the Hot Science, Cool Talks series.

Over-funded Projects

Most of the over-funded projects were simply circumstantial.

The pervious surfacing project ("Replace Impermeable Surfaces") was redirected to a smaller square footage location that would need less site preparation, resulting in less expense overall.

The Campus Environmental Center had excess funds from a calculation mistake in wages that was not caught in Committee review; these will be reconciled and returned.

The overage in Bicycle Parking (racks to be purchased by PTS) was slight and was redirected to other bicycle resources on campus.

The Styrofoam Recycling project did not cost as much as estimated due to not needing to buy a bin for Styrofoam collection. This project will be reconciled after its second year in 2013-2014 and overages returned to the fund.

The Occupancy Sensors for McCombs expended some funds on the sensors, and excess was then redirected to the Energy & Water Conservation Program to use on similar projects. This was approved by Committee and the original grantee. After the transfer, all funds were expended.

The Shower Timers in Moore-Hill project did not cost very much in terms of materials (the Division of Housing and Food provided some assistance for low or no cost, as well), and opportunity to expend the remaining funds was lost when the students left for summer 2013. They subsequently declined the remainder of funding.

The UT Tree Nursery used the majority of wage funds as proposed (on the student coordinator) and directed the excess funds to supplies. The inability to use wage funds was due to restrictions on the number of hours the graduate student could work.

Cancelled Projects (no funds expended)

Three projects were cancelled. The Green Points Pilot Program (\$32,000) was unable to clear hurdles in Trademark, Legal Affairs, and Information Technology and was cancelled in favor of building more support and returning at a later date. The Bat House (\$30,000) proposed by Environmental Health and Safety was ultimately a casualty of the Dell Medical School plans to utilize the Centennial Park area south of campus. And the Waller Creek Beautification proposal (\$1,000), somewhat too narrow in scope originally, elected to also regroup and re-propose a project at a later date if the right coalition of stakeholders could be assembled.

Conclusion

This report reveals an appropriate 'sophomore year' for the Green Fee program, in which some projects comfortably moved ahead based on knowledge gained in the first year, while others foundered due to additional challenges, inevitable when a program begins to stretch its wings and expand throughout campus. Representation among students, staff and faculty, and campus departments, continued to be diverse and robust. The projects uniformly pursued new and interesting ideas in campus sustainability, and provided several notable environmental services to campus. And finally, the relatively modest number of active projects opened the opportunity for many more ideas to be funded in 2013.

Appendix: Press & Media

KSAT San Antonio

http://www.cleanenergyauthority.com/solar-energy-news/lab-grows-solar-charging-business-103112

http://geostellar.com/site/geo-blog/geostellar-and-solarpump-together-sxsw

Safe Cycling Campaign (Light Night) <u>http://www.dailytexanonline.com/life-and-arts/2012/10/31/event-light-night-will-give-out-free-bike-lights</u> <u>https://vimeo.com/60040801</u> <u>http://alcalde.texasexes.org/2013/01/lightnight/</u>

Styrofoam Recycling http://dailytexanonline.com/news/2012/12/03/ut-labs-recycle-foam-packaging-using-green-fee-funding

Solar Panel Installation <u>http://dailytexanonline.com/news/2013/01/15/austin-energy-ut-take-different-approaches-to-solar-panels</u>

Tree Nursery http://kut.org/2013/01/ut-students-to-give-tree-seedlings-to-bastrop/

Harry Ransom Center Landscaping <u>http://www.dailytexanonline.com/news/2013/04/04/campus-saves-water-with-native-plants-</u> landscaping-design

ESI Outreach Videos (produced in 2012-2013) Composting at LBJ: <u>https://www.youtube.com/watch?v=KjGBwiBkP0c</u>

Tree Nursery: <u>https://www.youtube.com/watch?v=K4EwaSr4PPs</u>

Safe Cycling Campaign: https://www.youtube.com/watch?v=brb5Py4ML8A