

Sustainability at the Scott Arboretum

By Andrew Bunting

October 20th, 2008 (4:00-5:00)-Lang Center

[Carr Everbach's notes in square brackets and red]

- 1) Green Roofs
 - a. Alice Paul
 - b. Kemp Hall
 - c. Papazian
 - d. Wister Education Center and Greenhouse (future) – [will be LEED silver/gold]
 - e. Performing Art Center (future) – [will possibly include viewing platform, interpretive signs]
- 2) Stormwater Management
 - a. Science Center
 - b. Sporobolus beds
 - c. Bio-stream – [between McCabe and Ben West; cost \$10k more but much prettier]
 - d. Rain Garden at Kemp Hall
 - e. Pervious paving
 - f. Wister Education Center and Greenhouse
 - i. Storm water cistern – [7500 gallon volume, for irrigation]
 - ii. Rain Gardens
 - iii. Storm water management system
- 3) Composting
 - a. Swarthmore College-Swarthmore Borough-Nether Providence composting
 - b. Collecting green waste at Arboretum
 - c. Dining Hall Composting program – [need to talk to Claire Sawyers about issues with student workers brought to us by the Good Food Club students in our previous meeting]
- 4) Garden Maintenance
 - a. Water metering – [talk to Tom Cochrane, who has the water use data]
 - b. Reel Mower
 - c. Reduction in chemical use – [now use horticultural oils and soaps, except for Rose Garden. Andrew would like to choose lower-maintenance rose varieties]
 - d. IPM – [integrated pest management, e.g. ladybugs]
 - e. Using mulches from compost and wood chips – [not peat, which forms over thousands of years]
 - f. Organic Mechanic soil – [a product of rice hulls, worm castings, mushroom compost]
 - g. Drip irrigation-Science Center, Cosby, Rose Garden, Alice Paul, Kemp Hall
- 5) Tree Harvesting
 - a. Metasequoia shingles-Education Center

- b. Picea abies-Education Center
 - c. Malus sp.-Education Center
 - d. Other woods used for bowls by local craftsman – [including “Stubby Warmbolts” of CitiLogs, who makes useful things out of cut down trees, etc.]
- 6) Lawn alternatives
- a. Innovative plantings of sedges and rushes – [talk to Chuck Hinkle about grass alternatives. It is not good practice to mow lawns. Idea: student turf analysis to propose meadow areas or alternatives. Attract more birds.]
 - b. Increased planting areas
 - c. Use of Mustang tall fescue-slower growing, drought resistance
- 7) Sustainable Education
- a. Green roof tours/once per month
 - b. Green roof installation documented on Arboretum’s blog Garden Seeds [see <http://blogs.scottarboretum.org/gardenseeds/2008/08/building-layers-green-roof/>],
 - c. Sustainable Series Education
 - i. Great Native Ferns for the Garden
 - ii. Lawn Alternatives for the Real World
 - iii. Guest lecturer: Doug Tallamy – [January 2009]
 - d. Nature’s Narratives-book discussion group [led by Liz Hagley, half of whose duties involve sustainability. Idea: invite her to join our committee]
 - e. “Green Issue” of the Hybrid
 - f. Green Design-brochure [see <http://www.scottarboretum.org/publications/brochures.html>]
- 8) Collaborations/Partnerships
- a. Springfield Township-Bio-swale storm water management system
 - b. Public lectures on green roof technology-Jeff Jabco
- 9) Wister Education Center and Greenhouse-Silver or Gold LEED Certification – [\$237k paid by College, rest from donations or Scott Arboretum endowment]
- a. Enhance Refrigerant System
 - b. LEED Accredited professional
 - c. Site Selection
 - d. Storm water design-quality control
 - e. Storm water design-quantity control
 - f. Water efficient landscaping-reduce by 50%
 - g. Water efficient landscaping-no potable use or no irrigation
 - h. Water use reduction-20% reduction
 - i. Alternative transportation-public transportation
 - j. Alternative transportation-bicycle storage and changing rooms
 - k. Construction Waste Management-divert 75% from disposal
 - l. Regional materials-10% extracted
 - m. Certified Wood in collaboration with CitiLogs™

- n. Increased ventilation
 - o. Construction IAQ Management Plan-during construction
 - p. Low-emitting materials-adhesives and sealants
 - q. Low-emitting materials-paints and coatings
 - r. Controllability of system-lighting
 - s. Daylight and views-views for 90% of spaces
- 10) Forest Stewardship Council process used for all major publications
- 11) Invasive Species policy: priority removal list
- 12) Collaboration with the Swarthmore Environmental Studies Concentration: 1 lecture/year directed specifically for the students of this program along with our constituents (2009: Doug Talamy)
- 13) Management of Community Garden
- 14) Future Projects
- a. Weed control-goats [rent goats and tether them in English Ivy areas to eat the ivy and fertilize the soil. Goats are about the only animal, absent “little lambs,” who eat ivy. Andrew estimates several dozen acres of invasive English ivy on campus.]
 - b. Nursery pot recycling program – [thousands of black plastic pots annually. Idea: collect from homeowners in the area and put them all in a truck for transport to recycling center that will take them (Lancaster, PA).]
 - c. Rain water harvesting-Rain barrels, etc
 - d. Plant Conservation Plan – [save seeds, catalog and store, share with seed banks worldwide]
 - e. Crum Woods Stewardship Committee-more active role, advocate for full-time professional land steward. – [possibly a faculty member. Should SusCom offer an opinion about this?]
 - f. Install water in community garden
 - g. Paper usage-assist College in reducing its paper usage – [Arboretum has many conferences with brochures (idea: give out thumb drives?)]
 - h. The Scott Arboretum is a non-academic department of the College, but would like to involve more students and faculty, pique their interest in horticulture and sustainability.
 - find homes for recyclables
 - coordinate Good Food club’s student positions, student interns (lawn analysis)
 - examine possibilities for more sustainable playing fields (talk to Jeff Jabco, who answers to Stu Hain and Claire Sawyers), must meet NCAA standards, though.
 - i. SusCom should look to Arboretum as a resource for increasing sustainability education of the Swarthmore community.