GreenCO BMP Expansion Advisory Team Meeting Minutes
Wednesday, November 14, 2007

In attendance: Tom Halverstadt, Kevin Reidy, Mike Reis, Sharon Harris, Donna Ralston, Harriet McMillan, Stu Feinglas, Alison Peck, Larry Lesser, Brenda O'Brien and Jane Clary. On the phone: Brad McKee, Jim Klett, Ram Dhan Khasla and Curt Swift.

Jane started the meeting with a refresher on "What BMP resources are available today?" A handout was provided from the Boulder Urban Landscape Symposium, which identified quite a few new resources since publication of the 2004 GreenCO BMP Manual. Continuing to brainstorm, the group discussed the following resources:

Topic	Author/Source	Mentioned by
Reducing Natural Gas/Propane use for Greenhouse Space Heating - State of Wisconsin	Scott Sanford, Outreach Specialist, Univ of Michigan	Tom H.
LEED Program for New Construction (Sustainability and Stormwater)	US Green Building Council	Larry L.
Western Colorado Publications: - Residential Landscape and Irrigation Guide - BMPs for Irrigating Golf Courses/Large Acreage Properties - Pond Construction for Residential and Commercial Properties	CSU Cooperative Extn	Curt S.
Effective Use of Recycled Water for Landscape Irrigation	Aqua Engineering, Inc.	Donna P.
Irrigation Audit Guidelines	Irrigation Association	Ram Dhan K.
Soil Baseline Study on Landscape Water Reuse Sites	Yaling Quian	Donna P.
GreenCO/CSU Shrub Study	Dr. Klett	Dr. Klett
Top 20 Annuals Study	Dr. Klett/Welby Gardens	Dr. Klett
Turfgrass Studies	RMSGA / Dr. Koski	
How plants are affected when planted in mulch vs. rock? (heat issues)	Not specified	
Tree Project	Institute for Environmental Solutions	Brenda O.
Irrigation: drip vs. subsurface, etc. Overall feedback obtained. Salinity issues?	Not specified	
City of Portland – City Benefits from Trees project	Clean Rivers Plan	Jane C.
Interception of Water – Washington DC report	Not specified	Larry L.

Quick Tips for Water Conservation	Western Resource Advocates 2007	Jane C.
Water Meter Report (issues at Top Drop Awards)		

Sustainable Sites Initiative:

Alison presented a preliminary report on the Standards & Guidelines for the Sustainable Sites Initiative, a partnership between the American Society of Landscape Architects (ASLA), the Lady Bird Johnson Wildflower Center at the University of Texas at Austin and the United States Botanic Garden. The goal of the project is to create voluntary guidelines and a rating system for sustainable landscape design. The full report is available at www.sustainablesites.org. Alison spoke to a few project highlights that could be useful to this project. They are:

Definition of sustainability: Alison prefaced that sustainability has various meanings dependent upon who you are talking to. But for the purposes of this initiative, site sustainability is *defined as design, construction, operations, and maintenance practices that meet the needs of the present without compromising the ability of future generations to meet their own needs*.

Vision: All site-related design, construction, operations and maintenance practices link natural and built systems to achieve balanced environmental, social, and economic outcomes, with the goal of improving the quality of life and the long-term health of communities and the environment.

Purpose: Establish Sustainable Sites as the standard which recognizes and provides direction for achieving sustainable land development and management through the creation and implementation of clear and rigorous design, construction, operations and maintenance criteria.

Guiding Principles are:

- Do no harm
- Precautionary principle (limit risk to human and environmental health)
- Design with nature and culture
- Use a decision-making hierarchy of preservation, conservation and regeneration
- Provide regenerative systems as intergenerational equity
- Support a living process
- Use a systems thinking approach (understand the value of the relationship in the ecosystem to sustain)
- Use a collaborative and ethical approach
- Maintain integrity in leadership and research

Goals for the Sustainable Sites Initiative:

- Establish standards
- Link research and practice
- Transform the market
- Drive decision making

General Goals:

- Soils – maintain and improve soil health
- Hydrology – value of water at the site

- Vegetation – design and maintain vegetation
- Materials – manage materials and resources efficiently
- Human Well-Being – Design and maintain conditions to promote health and physiological benefits.

Nursery/Greenhouse BMPs:

Jane inquired about existing "plant lists" and "case studies" to obtain specifics on nursery/greenhouse production BMPs.

- Look for more advanced greenhouse/nursery production BMPs.
- Kc Study: Crop coefficients were broken down by demographic region; West slope, mountain, and Front Range. Discussion included whether the Nursery/Greenhouse sector of the industry could provide Kc information on the production side.
- Survey nurseryman to document actual greenhouse/nursery water use by plant type. Dr. Klett/Sharon Harris indicated that this could probably be done.
- Inclusion of Wire baskets should be put on hold per Sharon.
- Look at technology in nurseries / greenhouses? Tom, will look at BMPs from Wisconsin regarding energy in the greenhouse. Look at NREL study on energy in the greenhouse.
- Dr. Klett/CSU Coop Extension may have some new fact sheets that should be considered or used to update existing BMPs.

Technology (General Discussion on What New Technologies Should Be Incorporated):

- Look at technology specification links - twilight series, nozzles, MP rotator, smart controllers, and ask questions of Brent.
- Add technology reference links from the Irrigation Association, and all irrigation manufactures, i.e., Hunter, Rainbird, etc.
- Review Water and Soil Moisture Based Irrigation Scheduling project from Mark Spears (Bureau of Rec) and Brent Mecham. Study is a comparative analysis on ET controllers. Study conducted in August 2006.
- Consider controllers with EPA WaterSense labels.
- Check CSU's COAgNet website for ET data. Dr. Howard Schwartz is the contact for CSU managed data information.
- Curt advised that the Western Slope will be compiling a city matrix of ET data with the Grand Valley Irrigation providers. May want to look at the report for this project. Check the Grand Junction irrigators website.

BMP Brainstorming:

- Mulch: Rock versus organic mulch – what are the differences in plant health?
- Tree topics:
    - Preservation – protect trees during construction
    - Structural soils in LID designs
    - Beetle kill issue – disease etc.—probably not something to get into
    - Importance of tree diversity in urban forestry – pests come through and could destroy neighborhood if all are the same.
    - If plant/tree specifications change, nurseryman need to know 10 yrs in advance
    - ISA should list what should be used – diversity is important.

- Open discussion on the production side connecting to the landscape design side: nurseries start growing trees in demand roughly 10 years in advance, so good

communication between growers and designers is needed. Supply and demand govern the plant varieties grown.
- 90% of LAs are specifying the same plants; unusual plant specifications are often not available.
- One idea would be to encourage ASLA members to take field trips to nurseries to see what is new.
- Side discussion: Could the GI assign dollars to Western Center for Urban Forest Research (Southern California)?
- Trees provide stormwater benefits.
- Create checklists or tools. Answers the question of "am I meeting the mark?" "Is it measurable?" It would be good for GreenCO associations to identify what checklists are available for each segment of the industry and bring the findings back to the advisory committee. Industry reps can go through and look for BMPs that would be included in the checklist and what is omitted?
- Interactive postings of GreenCO Manual – at some point in the future, it could be good to keep site live with Wiki format (not in current project scope).
- GCC- education and communication is driven by customer needs.
- Look at "energy" side of BMPs.

Comments:
- Larry discussed the LEED approach that illustrates the How-To's of implementing the
- The green industry ought to showcase the benefits of landscape and how BMP implementation can make the ecosystem better. Explain how the green industry benefits the ecosystem.
- Move from conventional to green to sustainability. Push the bounds of what is possible.
- GI environmental issues are coming. What will impact the GI – drought, pesticides, restrictions, non-point source pollution, energy, etc? Variety of issues that could impact the industry, but as a whole fall under sustainability.
- Remind the GI what sustainability means – a long process and threaded throughout BMPs.
- Integrate sustainability concepts as a tool to raise awareness for the Green Industry to begin considering where they need to make changes, what they need to do, and shift way to thinking in how we can become more sustainable.
- Can you survive if you are not sustainable?
- Do members need to create new business models?
- On February 14, 2008, Denver Botanic Gardens is hosting a one-day conference with speakers from different landscape industries to share what resources they use, what the benefits are, and where is the low hanging fruit. For example, with composting what was used and what was saved, etc. Industry is one day with professional talks with a summary of what materials are used (local), benefits realized, and indicate the low hanging fruit.
- What are member obstacles to sustainability through BMP implementation? Are we very far or close? Is it because some have money and others don't? Larry recommended the DBG presenters add costs to determine if sustainability actually costs more. For example, a 2% higher cost to build sustainable is not necessarily true.

BMP Training:

- Some discussion occurred regarding the appropriate level of detail: don't want to be too basic, but don't want too be too detailed, either.
- Intent was not to replace existing "certification" programs.
- Training should reflect the "big picture."
- Training should reflect the "big picture" and include basic practices – a wide scope with basic content.
- Industry should encourage training for new hire orientation, offer continuing education credits, and those who need a refresher (Learn the "new school" and break the "old school" habits.)
- Tie in ProGreen's Green School. Perhaps BMP training should be added to eight classes.

Other Stakeholders:

- US Green Building (USGB) – meets monthly. Advise of GreenCO's BMP project and tie to LEED. Advise LEED what GreenCO is doing for the landscape industry.
- Colorado Municipal League (CML) – presentation by the green industry at their next annual meeting (Nov 2008). Attendees are usually small utilities that GreenCO could partner with.
- Home Builders Association (HBA) – Advise HBA what GreenCO is with its BMP program. Update Built Green checklist.
- AWARE – Cynthia Peterson is focusing on education of local political leaders (decision makers)/ local governments regarding LID and stormwater BMPs.
- Colorado Water Conservation Board (CWCB) – funded BMP Expansion project. Work with CWCB to communicate BMPs. Work with entities across the state with focus on "planners"
- Colorado Department of Public Health and Environment (CDPHE) - Tom Plant
- Center for ReSource Conservation - Mona Newton
- State Board of Landscape Architects
- Get revisions out to the public

BMP Housekeeping:

- Possibly consider revising the title of the BMP manual. Add sustainability into name of practices?
- GreenCO associations should generate some discussion on what BMPs means to their own entity? All segments of GreenCO need to be involved to generate awareness, creative thinking, and industry action.

To Do's

- ☐ GreenCO association representatives should identify what checklists are available for each industry segment and bring back findings to advisory committee.
- ☐ Ram Dhan will compile information on salinity issues.
- ☐ Jane will set up an FTP site for committee information.
- ☐ Brenda will transfer BMPs to FTP site in Word format.
- ☐ Larry will research manufacture's websites and CSU's AgNet to determine what types of data (ET) is available, and what might be helpful for industry.
- ☐ Curt will provide a copy of matrix compiled with the assistance the Grand Valley Irrigation District.
- ☐ Tom will look at Greenhouse BMPs from the University of Wisconsin.

Next meeting: The December 4th meeting is CANCELED!

Our next meeting is scheduled for Wednesday, December 19, 2008 from 9:00 a.m. to 11:00 a.m. at Wright Water Engineers, Inc.

The December 4th meeting is canceled so resource information can be synthesized in preparation for the next meeting.