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## The View from Laughing Springs: Hans Reimann's ecological notes

Spring 2009

### **Creative Approaches for Ecological Landscaping**

This was the theme of the ninth annual "Land Ethics Symposium", facilitated by Bowman's Hill Wildflower Preserve. The importance of this one day gathering of landscape professionals, municipal officials and natural area managers was underscored by the presenting sponsor of this event, the Bucks County Commissioners. Other premier sponsors included: North Creek Nurseries, Princeton Hydro Engineering and Temple University (Ambler campus). These sponsors share elements of the important mission of Bowman's Hill Wildflower Preserve; that is, to lead people to an appreciation of native plants, to an understanding of their importance to all life, and to a commitment to a healthy and diverse natural world. As one of your Watershed Association board members this last decade, attending this symposium enabled me to bring to our membership and community opportunities for education, native plant conservation and stewardship.

The first speaker at this year's "Land Ethics Symposium" was a land-planning engineer from Oregon, Grant Jones. His theme of "a marriage with the land" spoke to Native American principles of living. He believes that when you live in a place or community, you should allow yourself to be defined by the natural community that surrounds you. A feeling of oneness with nature can develop, making the land and water resources easier to read. Mr. Jones then spoke of how nature becomes a partner in your community and gives a voice to the place you live; for example: through poetry. He expressed the importance of accepting the mystery of nature to help guide us in forming new community frameworks including green infrastructure.

Using the concept of watersheds as a unifying spectral framework, he stressed the need to soften the distracting ideals of people's intent on possessing and controlling nature. Mr. Jones talked also of a land ethic triad in land planning that encompasses, green infrastructure services, scenic cultural infrastructure and the spiritual value of nature. Mr. Jones then advises us to interpret technical and "lyrical" aspects of nature to initiate landscape planning partnerships that foster green infrastructure services such as food production, climate mitigation and our collective spirit of well being. Two books for further study are: "Nature's second chance" by Apfelbaum and "Cities in the Landscape" by Bruce Babbitt.

Speaker number two, Jason Lubar, is an accredited arborist from the Morris Arboretum. He does forestry consulting on land development projects; commercial

and residential. Tree protection during construction was his theme at the “Land Ethic Symposium”. Stressing the aesthetic, ecological and economic value of trees, he prepares a report that includes accounting for all trees on a property to be developed, listing native and non-native species and showing impacts already underway among trees such as disease, earth compacting, flooding, etc. His report then shows tree protection zones protecting structural and nutritional roots. His tree protection zones are based on different trees’ tolerances to disturbance, with a formula used for calculating the radius of different zones. His report then moves to protect trees during construction phases. These may include foundation modifications, test trenches, causeway construction, pier and footing adaptations and raised decks and walls. A new technique uses an air tool to blow away dirt from roots to show where they are. More tree friendly access roads to move equipment and materials would use mulch and stone instead of plywood over root areas. Post construction guidelines including monitoring tree health for moisture, insect and disease control, soil aeration, and proper fertilizing, along with fill grade adjustments help insure trees’ abilities to live a full and productive lives.

Mark Gallagher, of Princeton Hydro was the third speaker at the symposium. His theme was “Changing Conventional Engineering Thought on Stormwater Mitigation”. The fundamental premise, according to Mr. Gallagher, is to think of stormwater as a water resource instead of a waste runoff. His forward-thinking principles use nature as a model for mitigating stormwater running off our impervious surfaces. He believes that all new stormwater facilities and especially the retrofitting of old facilities should be redesigned to become integrated into our communities as natively vegetated green infrastructure. He emphasized the eco-services that green, infrastructurally-designed stormwater facilities can perform are the same natural functions as riparian corridors, wetlands and flood plains.

Volume management, groundwater recharge, pollutant removal, aesthetically pleasing, and reversing flood channel instability are positive results of these new designs according to Mr. Gallagher. He also explained that these new designs for stormwater mitigation require minimal maintenance compared to conventional facilities. I was very pleased when he said that invasive plant management plans should be mandated into every new and retrofit plan. Mr. Gallagher stressed that Pennsylvania’s Stormwater Manual contains all these preceding principles to guide municipalities in their quest for the best ordinances to regulate stormwater. (Suggested reading: "Bringing Home Nature" by Doug Tallamy)

The fourth speaker of the day was Stephanie Cohen, with a rousing talk on the merits of attractive native perennial flowers. She kept our attention with humor and wit; straight talk and honest assessment. She stated her weariness with the word "sustainability" and substituted “Earth-friendly” when espousing the benefits of native plants in our landscapes. Many of her plants on the following list, I have recommended and planted at Laughing Springs and other native plant gardens in the area: Columbine for butterflies, foam-flower for a ground cover, nodding onion, thread leaf bluestar and eastern bluestar, variegated Jacob’s ladder, *Phlox divaricate*, for its spring flower, blue false indigo, fringed bleeding heart for its long bloom season in partial shade, wood geranium growing in partial shade, mountain

mint for its long bloom season and being a great pollinator, Joe Pye weed for butterflies and also drought and deer tolerant, sunflowers which are perennial, lobelia a moist and partial shade lover, ironweed, grasses such as Panicum, Andropogon, and Carex penna. This is just a partial list of her favorites.

The final speaker of the day was a research professor from Rutgers University who was doing research on urban tree planting. His concepts could be important in our village, commercial and industrial areas where impervious surfaces abound. Mr. Grabosky is experimenting with constructed soil mediums to enable the planting of trees in planting boxes underneath sidewalks, on bridge overpasses, parking lots and other urban environments. His work includes root growth issues of expansion, moisture, and nutrient absorption in artificial soil mediums.

The wildflower preserve staff hosted a wonderful day of information and networking with like minded individuals. One such person I met is tasked with implementing a riparian buffer project in our watershed, but that, is a narrative for our next issue. Regards: Hans, retrofitting for Spring!

More information on Bowman's Hill and native plants can be found at:  
<http://www.bhwp.org/native/index.htm>