

Agenda

October 22th, 2014, 7:00 PM – The Arts Center

- **Climate Protection Planning in Carrboro** *Randy Dodd, Town of Carrboro Environmental Planner*
 - **Urban Trees**, *David Jantzen, Town of Carrboro Landscaping/Grounds Supervisor,*
 - **Naturalizing Landscapes for Healthier Soils and Plants and Happier People**, *Matthew Arnsberger, Professional Landscape Design Contractor and Environmental Advisory Board Member*
 - **Why Native Plants?** *Johnny Randall, Director of Conservation Programs, North Carolina Botanical Garden*
 - **Rain Garden Uses, Benefits and Resources**, *Betsy Kempter, Watershed Educator*
 - **Interactive Discussion**
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Energy and Climate Protection Fall Forum: October 22, 2014

Final Report (December 4, 2014)

Climate Protection and Energy Use: The Role of Land and Water Management

The Issue

The lands and waters of Carrboro are important for sustaining the Carrboro community, the economy, and nature. Urban forests sequester carbon, provide natural cooling, absorb storm water, remove pollutants from the air and water, and provide areas for recreation, aesthetic views and habitat for wildlife. Lakes, rivers, and streams act as natural reservoirs, convey runoff, mitigate floods, provide recreation, enhance aesthetics, and support wildlife. The ways in which we manage pollution, storm water, and energy use also affects the health of our community and nature.

Climate change presents a risk to these natural resources because it could negatively impact their health and reduce the services they provide. At the same time, these resources present opportunities for helping the community mitigate and adapt to climate change.

Key Areas of Concerns and Scope

- The Town can address these issues through:
 - Management of Town buildings, operations, and public lands
 - Town regulations, in particular the Land Use Ordinance

- Education and outreach and role modeling for the public
 - Public-private partnerships
- Citizens can address these issues through:
 - Land management, landscaping
 - Water use, management
 - Voting
- The Town is legally limited to what it can directly control, therefore it is imperative that the community as a whole finds ways that citizens can make changes
- More street trees
- Urban forestry: expanding a community urban forestry program
 - Promotion of increased shading town-wide – both on Town (including streets) and private property.
- Sustainable landscaping
 - promoting ecosystem services, supporting native plants, and reducing non-native plants
 - more sustainable “yard waste” management, pick-up/delivery, and reduced leaf blowing
- Composting
 - Program for free, low-cost bins
 - Enhanced redistribution system for compost
- Rain water capture
 - Implement program for free or low-cost rain barrels (as in Chapel Hill).
- Trade-offs between alternative means of mitigating climate change need to be addressed – e.g., tree shading and solar energy access need to be carefully coordinated to support residents and minimize the community working at cross-purposes
- There is potential for HOAs to more actively support sustainability, although it is unclear how to best foster doing so
- Town needs to set an example, be a role model
- A goal should be reaching lower income citizens and those who live in multi-unit dwellings, as well as landlords
 - Example: provide a rebate on insulation for landlords

Significant Data Points

- Most of the residential property in Carrboro is rental property (~60%)
- There is limited right-of-way and public land that the Town can use for environmental enhancements.
- As NC is not a home-rule state, there are limits to what the Town can do legislatively.
- The community rather than municipal section is the largest source of greenhouse and CO₂ emissions by volume (98% versus 2%).

Recommendations

Based on the forum input and subsequent discussions, the EAB makes the following recommendations:

1. Promote/improve an Integrated Urban Forest Management Program
 - Manage trees to best provide ecosystem services
 - Choose trees that will be suited to future climate conditions
 - Raleigh, NC State developing management guide
 - The Town can plant more street trees
 - The Town can partner with private land owners to plant trees
 - Example programs in DC, Falls Church
2. Create a storm water utility (or join Chapel Hills) to enhance the storm water management capacity of the Town
 - Utility could charge based on percent impervious surface to incent reduction in impervious surface and investment in green infrastructure
 - New capacity is needed for stormwater management activities such as:
 - Education and outreach
 - Inspection of BMPs
 - Illicit discharge elimination and detection
3. Create a citizen guide or guides that has a decision tree to help citizens identify things they can do to help with climate adaptation and mitigation, save money, improve their own well-being and that of their community and environment.
 - Provide guidelines on how to manage stormwater using structural and non-structural approaches
 - Provide information on tax rebate programs, loan programs, community education programs, that encourage climate change mitigation;
 - Provide guidelines and enhance the Land Use Ordinance for residential and commercial tree planting that meets shading goals through provision of the tree canopy while encouraging such shading and tree canopy heights and placement so as to not interfere with current or future active or passive solar energy designs.
4. Improve two-way communication with community to understand concerns and interests and how to get buy-in and promote behavioral change. Ask questions about lifestyle, residence type and other factors which could lead to options about waste management (e.g., composting), land management (e.g. sustainable landscaping), energy use (e.g., shade trees, solar panels and trade-offs), etc.
5. Continue with efforts to mitigate climate change within the governmental purview.
6. Focus private sector outreach on areas where the biggest benefit vs cost can be achieved, such as on the subpopulation and economic sector which, in aggregate, contributes most to climate change – private, rental residential, lower income and student populations.
7. The Town should work with other jurisdictions to lobby the State legislature for increases in Town's jurisdictional ability to legislate additional climate change mitigation on the local level.