Land Use & Environment Committee
Rappahannock-Rapidan Regional Commission

Meeting Minutes – June 11, 2009

Attendees:

Joshua Bateman	Town of Orange
Deirdre Clark	Rappahannock-Rapidan Regional Commission
Hal Hunter	Rappahannock County Resident
Terry Lasher	Virginia Department of Transportation
John McCarthy	Rappahannock County
Dale Medearis	Northern Virginia Regional Commission
Mary Sherrill	Fauquier County
Julie Still	Rappahannock-Rapidan Regional Commission
Jeff Walker	Rappahannock-Rapidan Regional Commission

Planning for Sustainability

Dale Medearis, Senior Environmental Planner
Northern Virginia Regional Commission

Mr. Medearis leads NVRC's regional climate mitigation and energy programs and manages their environmental partnerships through the European Network of Metropolitan Areas and Regions (METREX). Prior to his association with NVRC, Mr. Medearis worked as the program manager for western Europe and urban environmental programs at the Office of International Affairs, U. S. Environmental Protection Agency.

Mr. Medearis presented information on the challenges and threats of our country's current energy management policies and land-use practices in contrast with more sustainable strategies used in other nations, particularly Germany. Focusing on innovative urban environmental policies that could be implemented in Northern Virginia, Mr. Medearis cited expected population increases in Northern Virginia and associated escalation of greenhouse gas emissions as reasons for aggressively pursuing alternatives strategies. In order to mitigate these anticipated impacts, the Northern Virginia region has adopted the Cool Counties Initiative. Implementation of recommended practices is expected to result in an 80% reduction in GHG emissions by 2050 along with:

- An inventory of Fairfax County Government GHG emissions;
- Implementation of Fairfax County Transit Program / Metrocheck / Teleworking
- Preservation of 45% of Fairfax County's tree canopy;
- Purchase of 5.8 million kWh of wind energy;
- Methane recapture;
- LEED certification requirement for county projects greater than 10,000 $ft^{2.}$

Mr. Medearis stressed the need for quantifiable benchmarks for effective planning and referenced the

following as elements that should be included in a community energy plan:

- Energy Efficiency
- Heat Recovery
- Renewable Options
- Energy Distribution
- Large-Scale Planning
- Transparency and Outreach
- Leadership and Community Engagement
- World-Class Energy Efficiency Targets
- Integrated Utility Approach

Among the growth/energy management strategies that have been effectively implemented in Germany the following were discussed:

- compact urban form;
- multimodal transport systems;
- energy efficient construction practices; and
- district heating and power systems.

Comparisons were made between available alternative energy sources and their use in the U.S and Germany. Adaptive re-use of industrial sites and structures, the retro-fitting of urban spaces to accommodate LID practices and the use of energy performance building labels to promote energy efficiency were discussed. Germany's focus on alternative energy has created over 250,000 employment opportunities since 1998 and substantially reduced their greenhouse gas emissions.

Despite the considerable gap in energy efficiencies between Northern Virginia and its regional counterpart in Stuttgart, Germany, it was noted that the Northern Virginia region has adopted one of Stuttgart's signature practices, green roofs, and currently claims the highest concentration in the U.S.

Mr. Medearis announced NVRC's community energy planning initiative in Loudoun County. The rural perception of urban areas as primary culprits in energy demands and impacts was mentioned along with the interesting dynamic this will present in developing Loudoun's plan.

Form-Based Code – Town of Orange, Virginia

Joshua Bateman, Town Planner
Town of Orange, Virginia

The Town of Orange is in the process of developing a form-based code to replace its existing traditional code based on land use. Mr. Bateman explained that adoption of this approach will help preserve the unique and historic character of the town (population: ~4,500) while allowing infill and new development to occur.

As described by Mr. Bateman, form-based code emphasizes building design and form as applied to fenestration, building height and type, lot sizes and parking lot layout rather than designated land use as is typical of traditional codes where design requirements or recommendations are secondary or non-existent. Focus on the built form rather than the land use allows for mixed uses; however, as Mr. Bateman pointed out, form based codes usually include some requirements or limitations on types of uses. With a broad range of possible constraints and opportunities, form-based codes may specify only very basic building design requirements or may contain very detailed requirements for building types and architectural details. As currently proposed, the Town of Orange will focus only on basic building design requirements.

Mr. Bateman noted that the implementation of form-based code will encourage compact, higher density mixed-use development which will result in more efficient land use and reduce the need for automobile travel within the town. In addition, in may reduce the pressure for development in other areas. Mr. Bateman acknowledged that high density development generally results in increased stormwater runoff; however, it has been demonstrated that innovative stormwater management practices (low impact development) may be used to moderate such impacts. Once Virginia's new stormwater regulations are approved, he will work to incorporate LID requirements into the town's stormwater management requirements. Mr. Bateman stated that his experience in promoting the change to form-based code has been positive with overall support from a wide spectrum of stakeholders. He attributes this to the fact that the proposed changes are easily understood and the outcome is predictable.

Update on Upper Hazel TMDL-IP

It was noted that the Upper Hazel TMDL Implementation Plan has been completed. The plan, along with the technical report, will be post on R-RRC's website as soon as copies are received from Engineering Concepts, Inc.

Round Table Discussion

Due to time constraints, Round-Table Discussion was postponed.

Announcement – SAVE THE DATE!

R-RRC/CRRES Green Infrastructure Workshop
September 17, 2009
Daniel Technology Center, Culpeper, VA

NEXT LAND USE & ENVIRONMENT COMMITTEE MEETING: September 24, 2009

For future topics, please contact Deirdre Clark at the Regional Commission.