

# Transylvania County Low Impact Development Roundtable #3 Summary



WATERSHED EDUCATION FOR COMMUNITIES AND OFFICIALS

November 2007

## What do you think about Low Impact Development?

...that was the question of the evening at the 3rd LID Roundtable, Sept 11, 2007.

At the 2nd Roundtable, in April 2007, participants were presented with the basics of Low Impact Development and given a number of mountain examples. At the end of the workshop, participants told us “more people need to hear this - come back and present the same information at a night meeting.” So, that is what we did.

Over the summer we had the opportunity to give updates about the EPA grant and the LID roundtables to: the Transylvania County Commissioners, the Brevard City Council, and the Brevard Planning and Zoning Board.

At Roundtable 3, Sept 2007, we again presented LID basics and a few examples, different from those presented in April.

All presentations can be found at:

[www.ncsu.edu/weco/transylvania](http://www.ncsu.edu/weco/transylvania)

Because our last newsletter (May 2007) reviewed RT2, covering the basics of LID and explaining many of the examples, we ask that you turn to that newsletter for a review.

It can be found on the WECO website, titled May 2007 Roundtable 2 under “Newsletters /Meeting minutes”

This newsletter focuses on the discussion of LID that followed the presentations at RT3, and reviews one of the examples given, about buildout analyses.

**Join us in December to determine the best course of action to allow and promote ecologically - sensitive development in Transylvania county.**

## Next Roundtable - December 4th, 6:30 - 9 pm, County Library

### December 4th AGENDA:

- ◆ Landslide Hazard Mapping in NC mountains - Rick Wooten, NC Geological Survey, will provide an overview of the Landslide Hazard Mapping. This information is a valuable piece of the natural resource inventory that is recommended BEFORE LOCATING development sites, prior to site design.
- ◆ Planning for a LID workshop for developers/land planners/land managers
- ◆ Mountain Ridge and Steep Slope Protection Program update. The Land of Sky Council of Governments Advisory Committee will have their final plan and we will receive an update it. This is another valuable piece of information in the development toolbox for NC mountains.
- ◆ Using the pros and cons found on page 3 and 4, how can we leverage resources and remove the hindrances to Low Impact Development.

### Inside this issue:

DEC 4TH AGENDA	1
WHAT IS HELPING US ?	2
WHAT IS HINDERING US?	3
WHAT IS LID?	4
DEVELOPMENT VISUALIZATIONS	4

## Participants speak up... answer 2 questions:

- ⇒ **What factors may help implement LID?**
- ⇒ **What factors may hinder LID implementation?**

### What are the Positive aspects that can help get LID implemented?

After learning about low impact development, audience members were asked to participate. At both the April and September meetings, we asked what they thought about LID? what is going on locally that could help implement LID? and, what might hinder the implementation of LID here in Transylvania county?

Participants had lots of feedback, but one of the most important things mentioned in April was that more people need to see this information and be a part of this discussion. That is why a similar workshop was held in September, and why updates were given to local decision makers over the Summer.

WECO has categorized the comments for ease of reporting, but the comments themselves have not been changed. Some comments appeared numerous times, but are only listed once. These lists can be used to gauge both community interest and need concerning LID. They are not meant to be a final tally, just the opposite, they are meant to be a starting point for conversation and education. Some of the comments may offend you, some may make you laugh, all of them offer something to think about. Maybe there is something here you can learn or teach about?

#### **The beauty of the area is worth preserving:**

- Bittersweet fact that existing agricultural areas maintain our rural stability but are vulnerable to develop
- Beauty of natural landscape encourages preserving as much as possible
- Potential for LID implementation because of population increase
- LID protects values that are important to residents
- Most people moving to Transylvania County value the natural resources here

#### **Educational opportunities are already in place:**

- Non-profit organizations, such as Sierra Club, RiverLink, Carolina Mountain Land Conservancy are able to help with education about LID
- Strong education through Cooperative Extension
- County officials education
- Clear Water Contractor Training
- Existing BMPs can be a place for educational signs
- Positive benefits of LID are already

apparent locally

- LID implementation could reduce storm-water runoff pollution entering our streams and the French Broad River System
- LID site and best management practice (BMP) examples on the ground, examples include: County Library, NC Arboretum, Food Lion, Brevard College and others

#### **Private sector is interested:**

- Developers want to do LID
- Consultants can design and push for LID in the area
- Community interest / concerned citizens / community support
- Huge interest by those relocating
- Owner-built homes
- Active Community Leaders
- Property owners moving here have money to pay any increased LID costs
- Al Platt (architect) is doing conservation easements
- LID is a valuable tool for developers in a competitive market
- The community is concerned with development issues

- Our economy is increasingly dependent upon outdoor recreation

#### **Availability of Resources:**

- Resources through non-profits
- EPA 319 grant money
- Clean Water Mngt Trust Fund
- many knowledgeable people to help
- NCSU resources
- Conservation easements for farmland/ forestry (Transylvania Farm Bureau sponsoring program)
- Carolina Mountain Land Conservancy works with landowners

#### **City and County interest:**

- County currently looking at sedimentation and erosion control – good opportunity to tie in LID
- TNRC established and functioning
- Support from County Extension
- City of Brevard Unified Development Ordinance, including sediment/erosion control/steep slope/surface water protection/flood plain developments, can help move LID forward
- Erosion and Sedimentation Ordinance is in progress w/ county
- Agricultural Advisory Board for County
- Community Appearance Initiative (Stream clean ups)
- Land of Sky Land Care initiative

#### **Other**

- Unfortunately, we've had wake-up calls, in the form of hurricanes, about the effects of inadequate storm water mgmt
- Other current conservation efforts
- Newly adopted Jackson & Henderson Counties' development ordinances address stormwater – we are learning from each other

## What might hinder LID implementation?

### Need more examples:

- Need steep slope examples
- Need rural examples, not urban ones
- Too many 'bad developments', not enough 'good ones'

### Lack of education/training:

- Lack of contractor/engineer/landscape architect training
- Officials not recognizing LID principles as effective
- Inexperience of contractors, etc in implementing BMPs
- Learning curve for LID will be impaired by new growth of people
- Lack of understanding or information about LID
- Translating education of public and developers into on-the-ground projects
- Physical constraints of LID in mountains
- Perception that LID is more expensive
- Change in stormwater principles (old idea was move water as far away as possible)
- Lack of awareness – difficult to educate public & contractors
- No culture of cluster/conservation development
- Slow to recognize seriousness of problem
- Lack of education/understanding by different groups: land planners, landscape architecture/design firms, consulting engineering firms, developers
- Perception that LID interferes w/ private property rights
- Overcoming the myths of not getting max yield development
- Perception of limited space on existing properties to implement LID

### Lack of resources:

- Lack of staff time to work on policy changes needed for LID
- Lack of staff time to enforce policies, BMPs, or erosion control

### Outside interests may not share local interest to preserve beauty

- Increased profit in development brings outside interests who want our money but may not share values
- Big Box Stores – developed using their corporate methods
- Influx of new residents and developers from other states not familiar with mountain building
- The ideas are coming from outsiders
- People buying here want their house on a hill with view at top of ridge
- Clueless urban people moving to the country
- Developers from outside (and here) who don't value our environment – want quick money

### Resistance to change:

- General lack of desire by contractors, developers, and government to change or learn
- Fear within some segments of the population to zoning and new ordinances
- "Change? Why? Clearing and grading work good..."
- Reluctance of local government to change ordinances
- Reluctance from developers
- Resistance to new ways of doing things, to change
- That's the way we've always done it
- Elected officials and government staff may not be supportive of change
- "This is the way we've always done it/ if you're going to tell me what to do on my land you better buy it."
- This is new thinking, and not the way we've always done things
- The inertia of trying to change ordinances to enable LID



### Disconnect of various government regulations

- Local and county codes and ordinances don't match up
- Regulations can limit or inhibit LID applications
- All agencies must work together
- Not enough coordination
- Individual group efforts are not organized
- Discontinuity of regulations
- Building ordinances prevent LID
- Lack of regulation
- Lack of incentives or requirements

### Other, including costs

- Lack of leadership
- Involve elected officials
- Be cautious of being from Raleigh and knowing what is best for us here in the mountains
- It costs money...
- Development will be concentrated on road corridors, amplifying negative impact
- Cost of conservation easement transaction (even for donations) for farm/forest protection
- Lack of regulation
- Cost of "re-doing" existing parking lots, to implement better design

## What is LID?

Laura Szpir, of the NCSU Water Quality Group presented an LID overview

While conventional site design quickly directs stormwater away from the property, onto neighboring properties, causing runoff and possible economic and ecological damage, LID incorporates the natural environment into the design. The objectives of LID are to mimic the predevelopment hydrologic conditions, manage precipitation close to where it falls, and work with nature, rather than against it. This is done by following 5 objectives:

1. conserve natural areas
2. minimize development impacts through design and techniques
3. increase the amount of time water stays onsite
4. best management practices
5. pollution prevention and education

WECO

Campus Box 8109

Raleigh NC 27695-8109

patrick\_beggs@ncsu.edu 919-515-4525

christy\_perrin@ncsu.edu 919-515-4542



Check out the Roundtable 2 Summary/ May 2007 newsletter & the WECO website for more LID information and examples.

## Development scenario visualizations

Patrick presented examples of development scenarios. One of them is shown here. The others can be seen on the project website.

These pictures show the difference between traditional development and conservation-style development. These pictures, actual aerial photographs with computer graphics layered over, are from Union County, hence the flat landscape.

The center picture is the aerial photograph showing woods and farmland. In the upper picture, the farmland has been preserved with an easement, much of the forest has been saved, and homes have been set into them. Also, some of the forest has been permanently protected with easements. The lower picture depicts large lot single family development, as it was zoned. The branching shape of trees in the center is a 50 ft buffer left around the existing stream.



farmland saved, forest protected, homesites smaller



Original landscape with forest and working farm (semicircle)



no farm, no forest, biggest lots possible

there are choices

NCSU IS WRITING A LOW IMPACT DEVELOPMENT MANUAL WHICH WILL BE AVAILABLE IN WINTER 2008.