

# HAYWOOD COUNTY GROWTH READINESS ROUNDTABLE

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**The 3rd Growth Readiness Roundtable Workshop is:  
Wednesday, June 6, 2007**

**8:30 a.m.– 12:00 p.m. (registration begins at 8:00 a.m.)**

**Haywood County Extension Auditorium, 589 Raccoon Road, Waynesville**



## SECOND GROWTH READINESS ROUNDTABLE HELD

We were happy to see many participants return to the second Haywood County Growth Readiness Roundtable Workshop on May 2 at the County Extension Auditorium. Over 40 people participated in the second workshop. All the local governments were represented, as well as state, and federal government agencies, private businesses, non-profits, and residential areas. Snacks were provided by the Haywood Waterways Association.

Participants heard results from discussions during the first Roundtable workshop held in May, and were provided with some recent information about second home owners. Carter Cone, NC State University Water Quality Group, introduced participants to *low impact development* practices, and Duane Vanhook, Haywood Soil & Water Conservation District, shared an example of site assessment and planning to protect natural resources. Patrick Beggs, WECO, provided an overview of *Better Site Design Principles*.

Participants were introduced to *Code & Ordinance Worksheets* that were completed by local governments to provide a place to start discussions about reducing impacts of development, and discussed the results in small groups. They began identifying areas of opportunity for im-

provement.

This newsletter contains a summary of the workshop. Complete presentations are viewable online as Adobe Acrobat PDFs on the project website:

[www.ncsu.edu/WECO/haywood](http://www.ncsu.edu/WECO/haywood)

The third Roundtable Workshop will be held on Wednesday, June 6 at the Haywood County Extension Auditorium. Registration begins at 8:00 a.m. with the program starting at 8:30 a.m. Snacks and coffee will be served during the meeting.

Save Wednesday, August 8 as the date for the 4th Roundtable!

The June 6 agenda includes:

- Overview of Haywood Community College Resources
- Bethel Elementary low impact development case study from Equinox
- Continued discussion about the aspects of low impact development, and how they relate to Haywood County
- *Better Site Design* books provided to participants by Southeast Watershed Forum

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## WHO WAS REPRESENTED AT THE SECOND ROUNDTABLE?

Haywood Cooperative Extension  
Haywood County  
Haywood County Board of Realtors  
Haywood County Homebuilders Association  
Haywood Soil & Water Conservation District  
Southwestern NC RC&D  
Haywood Waterways Association  
Local consulting firms

NC Dept. of Agriculture & Consumer Services.  
NC Division of Water Quality  
NCSU Water Quality Group  
NC Wildlife Resources Commission  
Towns of Canton, Clyde, Maggie Valley, and Waynesville  
US Fish & Wildlife Service  
USDA NRCS  
And others!

## HAYWOOD COUNTY GROWTH READINESS ROUNDTABLE

### WHAT IS LOW IMPACT DEVELOPMENT?

Low impact development is a new approach to site design and stormwater management. The objectives are to:

- ◇ Mimic the site's pre-development hydrologic conditions (runoff and infiltration after a storm)
- ◇ Manage precipitation as close to where it hits the ground as possible.
- ◇ Work with nature, rather than against it, and
- ◇ Replicate natural water balance.

At the May workshop, Carter Cone, who works for the NCSU Water Quality Group at the NC Arboretum in Asheville, provided an overview of low-impact development, and then showed an array of best management practices (BMPs) used within low-impact development to reduce stormwater impacts. BMPs can also be installed to treat stormwater from existing development.

More common BMPs include:

Raingardens (bioretention)	Stormwater wetlands
Swales	Cisterns/rain harvesting
Green roofs	Pervious pavement

Some nearby BMPs include:

- ◇ Over 20 BMPs nestled on the NC Arboretum site
- ◇ Parking lot raingardens in Brevard (Food Lion parking lot)
- ◇ Stormwater wetland at Brevard College
- ◇ Bioretention, swales, and wetland at Bethel Elementary (editor's note— Equinox Consulting will provide a presentation about this project at the June meeting)

All LID practices together, including site assessment, design, BMPs, education and maintenance, constitute a toolbox for developers to choose from for treating stormwater onsite, using it as an amenity rather than sending it quickly downstream or into a detention pond. *There is not any one LID feature, or BMP, that will solve all problems!* We will provide more examples and information about LID at the next Roundtable Workshop. If anyone knows of local examples to share, please contact us!

The Water Quality Group professionals from NCSU who are stationed at the NC Arboretum focus on the Upper French Broad watershed. They provide outreach and education about water quality protection, including workshops on LID and stormwater management, and conduct research.

*A raingarden at the NC Arboretum is pictured at right:*

### Key Strategies of LID for maintaining on-site hydrology\*

1. Conserve natural areas
  - ◇ Identify natural areas, set aside for conservation
2. Minimize development impacts through design and techniques
  - ◇ Reduce erosion
  - ◇ Reduce impervious surface
  - ◇ Protect certain soils
  - ◇ Reforestation
  - ◇ Landscape using native plants
  - ◇ Reduce pipes, curbs, gutters
3. Maintain time of water concentration
  - ◇ Use vegetative swales and green space to handle stormwater
4. Storage, detention and filtration BMPs
  - ◇ Small scales controls throughout a site to reduce runoff and remove pollution
5. Pollution prevention and education
  - ◇ To maintain practices and reduce pollution from household practices

*\*Courtesy of Laura Szpir, NCSU Water Quality Group*



## RESOURCE ASSESSMENT FOR MOUNTAINSIDE DEVELOPMENT

Duane Vanhook, Haywood Soil and Water Conservation District (SWCD), presented a demonstration project that is a collaboration between the SWCD, Haywood Community College, Haywood Waterways Association, and private developers.

The project involved:

- onsite field assessment by resource professionals.
- Inventory of soils, slopes, streams, plant communities
- Incorporating information and recommendations in a 3D GIS (geographic information systems, or computerized mapping) model
- Providing information and tools to developers to effectively utilize results of assessment

Two of nine properties suggested by developers were assessed. Road alignments and lot configurations were moved to better protect resources on the two sites.

Some key findings of the demonstration project include:

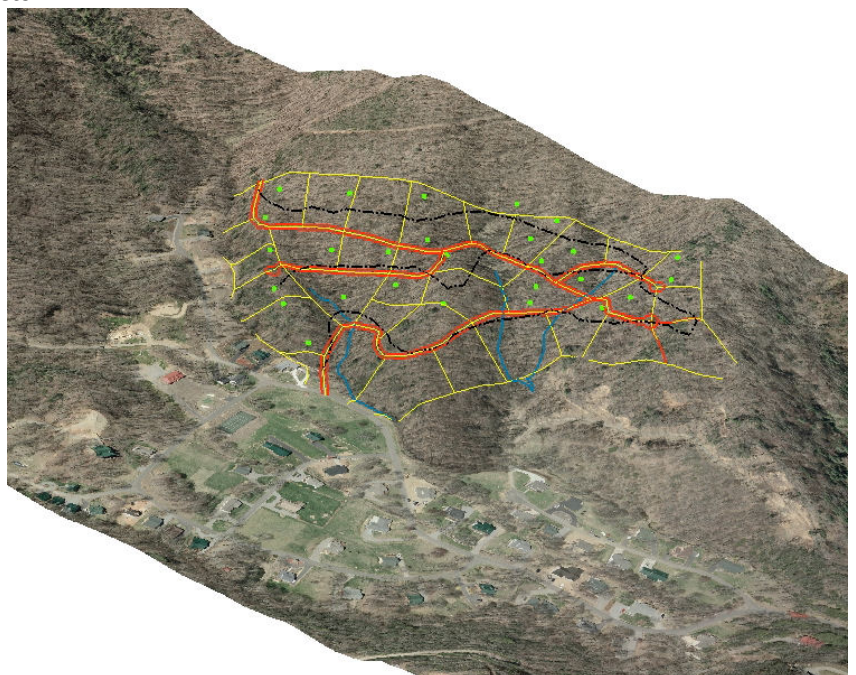
- Assess resources early in the process to save time and money, and avoid regulatory conflicts
- Having a watershed perspective is important (all water flows downhill!)

GIS technology allows professionals to map out resources, including slopes. Roads and lot lines can then be aligned to minimize impacts to these resources, as illustrated by the picture to the right that was presented by Duane.

- Getting resource professionals' boots on the ground is key, since published resources are not specific enough for mountainside parcels
- Allow site characteristics to define lot boundaries
  - ◇ for more stable homesites
  - ◇ reduced offsite impacts
  - ◇ reduced long-term road maintenance
- 3-D GIS/GPS are effective tools in the process
  - ◇ Creates easily understood displays
  - ◇ Provides excellent marketing tool!

In summary, the developers found real value in the process, saving money in the long term (by reducing road infrastructure, for example). Identifying natural resources upfront before creating a design, will result in safer, more stable homesites and roads, reduce long-term costs for lot owners, and reduce offsite impacts.

Duane's presentation is posted as a PDF on the project website.



## HAYWOOD COUNTY GROWTH READINESS ROUNDTABLE

### HOW CAN LOCAL POLICIES ENABLE OR PREVENT LOW IMPACT DEVELOPMENT?

Participants heard a brief review of the Center for Watershed Protection's *Better Site Design Principles* from Patrick Beggs. Local governments gamely agreed to complete a *codes and ordinance worksheet* based on these principles. The principles provide a good starting point for discussions, with the recognition that they may not all be relevant here, and they may also not be completely inclusive of what participants want to discuss. The scores from the worksheets are not meant to rank local governments. There is subjectivity to how they are filled out, and to what the scores mean.

High scores in a category can indicate areas where local governments encourage low-impact development, while low scores can indicate opportunities for improvement. Participants were asked to self-select into the following 3 categories to discuss the worksheet results in those categories. Results were averaged among the local governments.

*Streets and Parking (Habitat for Cars)*— few volunteers for this group, so it was rolled into the lot design group  
*Lot Design (Habitat for People)*  
*Natural Areas (Habitat for Nature)*

Summaries of the small group discussions follow.

#### Lot Design/Streets & Parking Group

Encourage Planned Unit Development

- Clyde PUD Ordinance allows things is not specific about numbers

Developer incentives are needed

- Tax incentive rewards or tax credits
- Insurance breaks could be an incentive - reduced risks of flooding, landslides
- Faster permitting

Conservation design/cluster development

- Do you need availability of sewer and water to cluster?
- Cluster development, as usually presented, is not wanted by many people (houses placed close together) - perhaps we need to refer to it as conservation development, or "rural by design" (Bethel)

Infrastructure needed for LID

- Is shared infrastructure a possibility for increasing den-

sities to preserve open space?

- Usually can share wells easily enough, but septic sharing brings about its own problems, such as maintenance responsibility, and shared damage. Developers mention these problems.
- Septic tail lines can run into open space
- (editor note: a de-centralized wastewater management chapter will be included in the NC LID manual. NCSU has resources)

Natural resource planning services

- Forest Service and NRCS provide free planning services like forest and farm plans to citizens, but developers don't get free services.
- SWCD doesn't have resources to provide inventory and planning services such as the mountainside work.
- Developers are interested but don't have anyone to conduct these assessments.

Education for developers, banks, insurance agents on LID needed

- Can LID sell itself by simply educating developers?
- Educate everyone about how it saves and makes money.
- Banks need to be educated - they dispense money at different intervals. Landscape money often comes out later, but needs to be dispensed early on so the planning / grading, etc can occur.

Erosion & Sedimentation control

- Local and state Soil and Erosion Control offices are understaffed
- In grading practices, and erosion and sedimentation, 'what is acceptable' constitutes a very broad range, so things that should not be approved are approved

Need for collaboration

- More agency collaboration is needed at all levels- local level, between banks, insurance, permitting offices, contractors.
- Site designers, planners, engineers, stormwater management staff - don't always work together at the same time. These LID principles need to be incorporated early on so reviews and approval can be made/ amended while there is time to change things.

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## HAYWOOD COUNTY GROWTH READINESS ROUNDTABLE

### HOW CAN LOCAL POLICIES ENABLE OR PREVENT LOW IMPACT DEVELOPMENT?

Continued from page 4

#### Natural Areas (Habitat for Nature)

##### What are we doing well?

That there is a Buffer Ordinance

- 25' Buffer for Trout Streams  
No disturbance allowed in buffer
- 30' Buffer for Stormwater Phase II governments (Canton, Clyde, Waynesville) Allows disturbance and grading, but no building.  
Can landscape; needs to be vegetated
- Issues include: how streams are designated, the type of vegetation and width required, maintenance, a need for site specific flexibility

Haywood County is rich in natural resource professionals  
Reversion of floodplain in Clyde to a more natural state

- Buildings will be removed, will be used for gardens, greenways
- Maggie Valley's Landscape Ordinance is moving ahead with planning board
- Improvements in clearing and grading

##### Where are there opportunities for improvements?

Buffer improvements (forested and 50-100' on streams)

- Should consider site specific features, such as slope percentage, requiring woody Vegetation

Clearing and Grading

- "Clearing as you go" model
- "Re-seed" as you go

Enforcement of "All Natural Areas" Categories, including buffers and erosion/sedimentation control

Tree Conservation

- Regulation for placing back woody material after development disturbance
- More incentives for landscaping
- More incentives for preserving natural areas
- More incentives for reducing paving requirements
- Landscaping sells homes

Natural Resource Inventory- incentives needed for conducting

- Savings on construction is an incentive
- Faster environmental review process
- \$5,000 investment in inventory can reduce road lengths, save money in long run
- Need to document cost savings
- Private consultants can charge \$50,000 for inventory. Most developers will pay land surveyor instead to divide lots (not an engineer). Developers reluctant to provide the up-front capital if it increases risk.
- Need cost-effective natural resource inventory

Conservation design is difficult with second home market

- Market drives what is built
- People don't want neighbors nearby
- No regulations about what is cleared and planted
- Trade-offs are required

Greater upfront planning

Stakeholders who need to be involved include

- Faith Based Community (Baptist Association- Jim Trantham has info, Presbyterian)
- Neighborhood associations
- Non-profit community groups

Tax Structure Issue needs to be addressed

- Increasing land values mean taxes are very high
- Tax incentives for conservation  
Some exist, but do landowners know about them or understand them?

Steep slope issues are missing from the 22 Better Site Design Principles

Conservation Easements education is needed

*Editor's note: Much of discussion focused upon natural resource inventory, riparian buffer, and tree conservation. The group did not have time to talk about prioritizing issues for the next meeting.*

Watershed Education for Communities and Officials  
NC State University  
Campus Box 8109  
Raleigh, NC 27695-8109

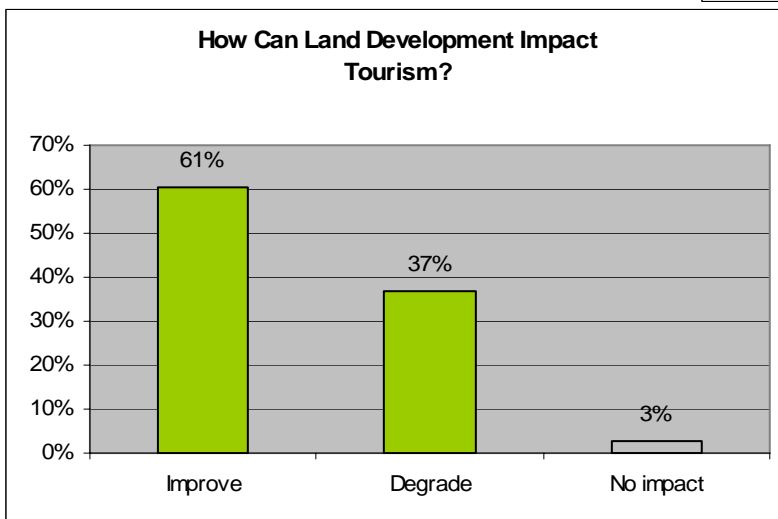
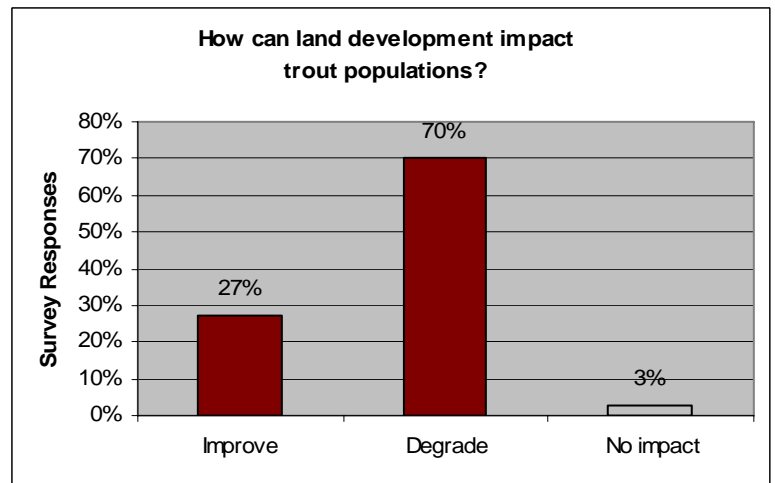
Phone: 919-515-4542  
Fax: 919-515-1824  
Christy\_perrin@ncsu.edu

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## CAN DEVELOPMENT AND NATURAL RESOURCE PROTECTION BOTH OCCUR?

We posed this question to participants at the first Roundtable Workshop. Over 60% of respondents think it is somewhat likely or likely for both to occur, while 21% thought it very likely. Less than 15% thought it unlikely.

Survey respondents overall felt that development could *positively* impact economic development (75% of respondents), recreation (55%), and tourism (61%). More than half of the respondents felt that development could *negatively* impact drinking water (65%), protection from flooding (58%), protection from landslides (68%), and trout populations (70%).



As one participant noted, with proper planning, development could result in improvements in all categories, but without this thoughtful planning, all categories may be negatively impacted.

We realize there are no easy solutions to such complex problems. However, with so many participants willing to openly discuss how to make Haywood County a better place, we feel that positive gains are definitely possible, and encourage participants to continue discussions with minds that are open to considering creative possibilities.

*Pictured— Graphs depicting some survey results*