

Growth Readiness

Having Growth and Water Quality Too

Water Water Everywhere
New Partners for Smart Growth Conference
January 26, 2006



Program helps communities

- Learn how land use decisions effect water quality
- Comply with regulatory requirements
- Make informed decisions about managing growth

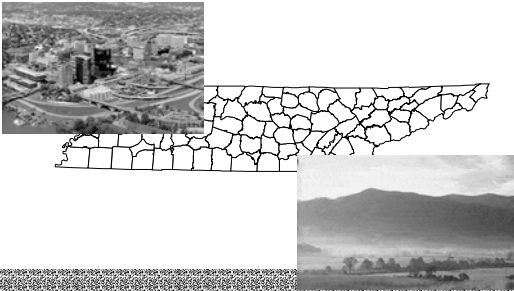


Built on existing best practices

- University of Connecticut's NEMO
- Center for Watershed Protection



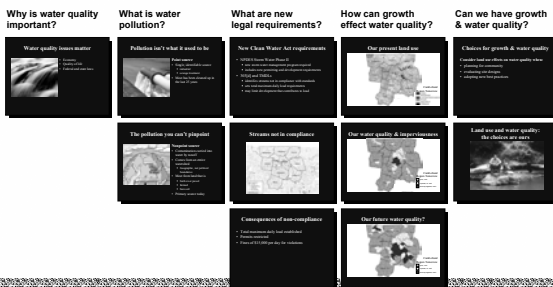
Developed with pilot communities



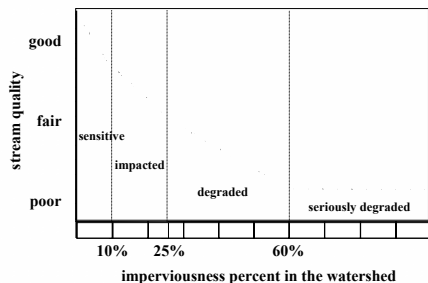
Training and Community Workshops

- Build awareness and support
- Consider model development principles
- Build consensus for change

Build awareness and support



Imperviousness effects stream quality



Impervious cover & stream quality



Consider Model Principles

Streets and Parking

1. Street width
2. Street length
3. Right-of-way width
4. Cul-de-sacs
5. Vegetated open channels
6. Parking ratios
7. Parking codes
8. Parking lot design
9. Structured parking
10. Parking lot runoff

Lot Design

11. Open space development
12. Setbacks and frontages
13. Sidewalks
14. Driveways
15. Open space management
16. Rooftop runoff

Natural Areas

17. Aquatic buffers
18. Buffer maintenance
19. Clearing and grading
20. Tree conservation
21. Conservation incentives
22. Storm water outfalls

Evaluate existing development rules

Center for Watershed Protection's Codes and Ordinances Worksheet

Rating Questions

Ratings Basis for Rating

1. Street Width

- a. What is the minimum pavement width allowed for streets in low density residential developments that have less than 500 average daily trips (ADT)?
- b. At higher densities are parking lanes allowed to also serve as traffic lanes (i.e., "quasi-streets")?

0 If the answer is between 18-22 feet, award 4 points

0 If the answer is YES, award 3 points

2. Street Length

- a. Do street standards promote the most efficient street layouts that reduce overall street length?

0 If the answer is YES, award 1 point

3. Right-of-Way Width

- a. What is the minimum right-of-way (ROW) width for a residential street?
- b. Does the code allow utilities to be placed under the paved section of the ROW?

0 If the answer is less than 45 feet, award 3 points

0 If the answer is YES, award 1 point

4. Cui-de-sac

- a. What is the minimum radius allowed for cui-de-sacs?
- b. Can a landscaped island be created within the cui-de-sac?
- c. Are alternative turn arounds such as "hammocks" allowed on short streets in low density residential developments?

0 If the answer is less than 35 feet, award 3 points if the answer is 30 feet to 45 feet, award 1 point

0 If the answer is YES, award 1 point

0 If the answer is YES, award 1 point

5. Vegetated Open Channels

- a. Are curbs and gutters required for most residential street sections?
- b. Are the established design criteria for easels that can accommodate quality treatment (i.e., dry swales, biofilters, or grass swales)?

0 If the answer is NO, award 2 points

0 If the answer is YES, award 1 point

6. Parking Rates

- a. What is the minimum parking ratio for a professional office building (over 1000 sq ft of gross floor area)?

0 If the answer is less than 3.0 spaces, award 1 point

YES, award 2 points

YES, award 2 points

YES, award 3 points if the answer is 30-45

YES, award 1 point

NO, award 1 point

YES, award 2 points

YES, award 1 point

22 feet or less, award 1 point

20 feet or less, award 1 point

5 feet or less, award 1 point

less than 60 feet, award 2 points

4 feet or less, award 2 points

NO, award 2 points

YES, award 1 point

For example...

Center for Watershed Protection's Codes and Ordinances Worksheet

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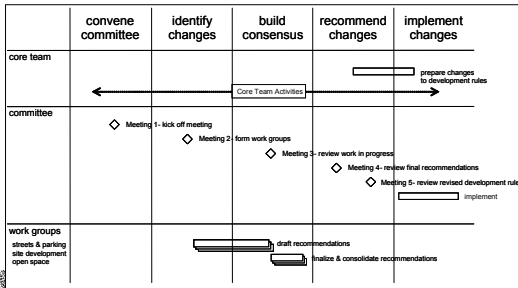
NO, award 2 points

10 points out of possible 17

Build consensus for change

- Planners
- Road department
- Land trusts
- Real estate lenders
- Fire Marshall
- Land use lawyers
- Homeowner associations
- Elected officials
- Municipal insurance
- Storm water mgt authority
- Dept. of public works
- Developers
- Realtors
- Civic associations
- Health department
- Engineering consultants
- Chamber of Commerce
- Urban forester
- Watershed advocates

Using a lean, well-managed process



Community consensus building

Common understanding of issues and choices

- Growth's affects on water resources
- Water resources economic, legal and quality of life importance
- Imperviousness
- 22 model principles
- Projected growth



Community consensus building

Agree on what's right for the community

- Issues raised by maps made from first workshop
- Decide which principles are right for community
- Tailor selected principles to their community



Community consensus building

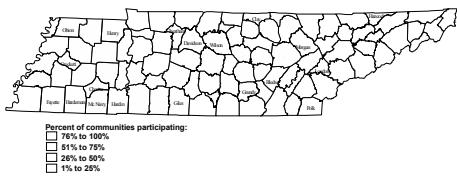
Get organized for change

- Agree on recommendations
- Develop action plan



Tennessee Growth Readiness

- 370+ participants representing 280+ cities & counties
- 199 communities evaluated development rules
- 40 are making changes



Scores of Participating Communities

Score	CWP Characterization	Communities
80-100	Few or no changes needed	0
60-79	Opportunities for improvement	8
<60	Reform needed	191

New Scores of 40 Communities Making Changes (Completed or Planned)

Score	CWP Characterization	Communities Original/New
80-100	Few or no changes needed	0/2
60-79	Opportunities for improvement	4/12
<60	Reform needed	36/26

Amount of Change Varied

- 30 communities: < 20 points
- 10 communities: increased by as much as 38 points
 - Multiple Jurisdiction Codes and Ordinances Review Workshop
 - Community Site Planning Roundtable Workshop Series

Predominant types of changes

- Street width and length
- Vegetated open channels
- Parking ratios
- Set backs and frontages
- Open space development and management
- Aquatic buffers and their management
- Storm water treatment

Blount Pilot

- Drivers
 - Storm Water Phase 2 regulations
 - Community interest in preserving stream quality
- 9 months
- 10 participants
- Codes and ordinance worksheet scores
 - Alcoa 49 → 71
 - Blount County 54 → 64
 - Maryville 45 → 71

Knox Pilot

- Drivers
 - Storm Water Phase 2 regulations
 - state water quality standards compliance
 - community concerns about growth and quality of life
- 3 years – 2 phases
- Core of 45 participants – 85 contributed ideas
- Codes and ordinance worksheet scores
 - regulations 53
 - practice 31

Getting to the finish line...

SPR Recommendation Topic	2005												2006	Affected Document(s)				
	F	M	A	M	J	J	A	S	O	N	D	J	F	SW Ordinance	Design Manual	Subdivision Regs.	County Zoning Ord.	Other
1 Reduced road widths																	X	
2 Call-deck radius														X	X		X	
3 Vegetated channels														X				
4 Open channel design standards																X		
5 Parking ratios																X		
6 Shared parking incentives																X		
7 Stormwater treatment for parking areas																X		
8 Connected open space															X	X	X	
9 Street and pedestrian connections																X		
10 Non-standard sidewalk designs																X		
11 Roof-top runoff																X		
12 Open space stormwater mechanism															X	X		X
13 Stream buffers						1	2								X	X		
14 Stormwater performance standards															X	X		
15 Conservation plan requirements															X	X		
16 Pre-development plan meeting															X			
17 Priority for state/federal permitting															X			
18 Eros. Sediment feature protection															X	X		
19 Development process flowchart																X		
20 Define stormwater BMPs															X	X		
21 BMP priorities & enforcement															X	X		
22 BMP liability and ownership															X	X		

The Future of Growth Readiness

- Tennessee
 - Duck River Watershed Site Planning Roundtable
 - New Site Planning Roundtables – 29 communities indicated possible interest
 - Land Use Planning for Water Quality
- Expansion to other states
 - Kentucky – training
 - Virginia – Tazewell Co., Wise Co. workshops
 - Georgia – North Georgia pilot

Water Quality May Not Be a Community's Priority Issue

- Preserving open space, farmland and historic sites
- Increased tax base and job opportunities
- Transportation systems
- Air and water pollution
- Adequate schools

But addressing these issues may improve water quality!

Cumberland Region Tomorrow

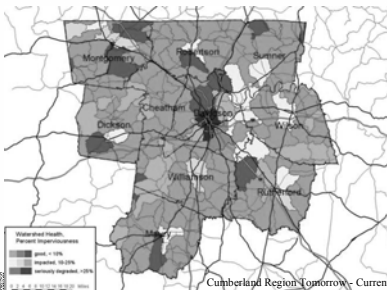
Goals

- Preserve unique community character and heritage
- Preserve critical open spaces
- Encourage high quality development practices

Present land use



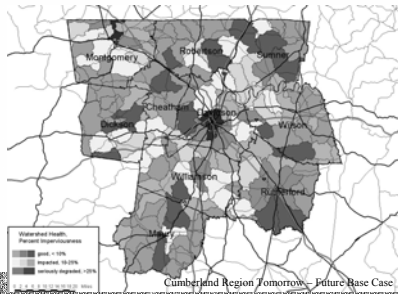
Water quality & imperviousness



Future land use – base case



Future water quality?



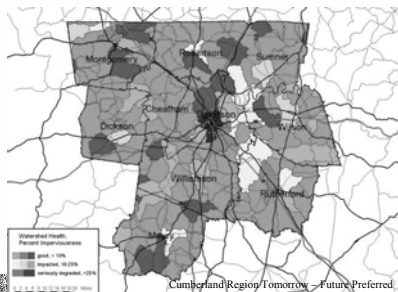
Cumberland Region Tomorrow - Future Base Case

Future land use – preferred



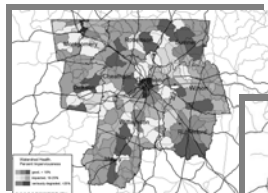
Cumberland Region Tomorrow - Future Preferred

Growth & water quality too!



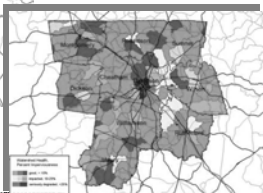
Cumberland Region Tomorrow - Future Preferred

Growth & water quality & everything else



The Future
business as usual

The Future
with best practices



Contact Information

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