Challenges to Sustainable Forestry: Fragmentation
Forest Land Ownership in Virginia

- Federal & State: 2.8 million acres (18%)
- Corporate (TIMO’s/REIT’s): 2.81 million acres (19%)
- Individual/Family: 10 million acres (62%)
- Forest Industry: 186,700 acres (<1%)

Virginia Forest Landowner Education
Helping Virginians Keep Their Forests Healthy & Productive
Real Forestry for Real Estate
• In 2010, 27,000 acres of forestland were converted to other uses
Percentage of Private Forest to Experience Increased Housing Density

- **90th percentile (36.51 to 72.35% private forest to be developed)**
- **75th percentile (23.47 to 36.50% private forest to be developed)**
- **50th percentile (10.86 to 23.46% private forest to be developed)**
- **Less than 50th percentile (0.00 to 10.85% private forest to be developed)**
- **Insufficient private forest for this analysis**
Trends

- Forest landbase
- Number of private landowners
- Ownership tract acreage
- Tenure of ownership
- Development pressure
- New/different owners
Large-lot Zoning

• Requires a minimum lot size for homes – generally at least 10 areas

• Intent is to maintain open/rural atmosphere
Large-lot Zoning

- Loudoun County – 2/3 limited to 1 house per 10 or 20 acres
- Fauquier County – 3/4 of land outside standard subdivision densities
- Two times as much land is being consumed by residential development in ‘rural’ and other preservation areas as in designated growth areas
Large-lot Zoning

• Promotes sprawl
• Example: A 700 home development has been proposed for Montgomery County Maryland
  • Normal subdivision zoning allows 30 homes every 6 acres, or 0.2 acres/home)
  • 700 homes x 0.2 acres/home = 140 acres impacted
• However, Montgomery County has a large lot ordinance requiring 25 acres per home
  • 700 homes x 25 acres/home = 17,500 acres impacted!
Definitions

• **Parcelization:**
  The division of large, contiguous forest tracts into smaller properties; promotes forest fragmentation and land-use conversion.

• **Fragmentation:**
  The conversion of forests to non-forest uses; leads to diverse land uses on former forest land. Tends to isolate and separate forested tracts from each other.
Graphic from: USDA Forest Service
Negative Effects

- Timber
- Wildlife
Negative Effects

• Increases disturbance by humans and domesticated animals
• Encourages exotic and invasive species
• Lack of cohesive management policy may make some goals unattainable
Opportunities

• Landowners working together to meet shared goals
• USDA Forest Service’s Cooperating Across Boundaries
Benefits

• Manage for species which have large habitat requirements
• Create wildlife corridors
• Provide different habitat elements
Opportunities

- Increasing & enhancing natural areas on small lots
Opportunities -
Natural Resource Professionals

• Change how we think about management
• Target new audiences
• New programs
• New services
• New service providers
Resources

Private Forests, Public Benefits: Increased Housing Density and Other Pressures on Private Forest Contributions
Susan M. Stan, Ronald E. McRoberts, Lisa G. Mahal, Mary A. Cam, Ralph J. Aig, Sam J. Cornee, David M. Theobald, and Amanda Carroll

Forests on the Edge: Housing Development on America's Private Forests
USDA Forest Service
Pacific Northwest Research Station
General Technical Report
PWG-GTR-530
May 2015

The Woods in Your Backyard
By Johnathan Keys, Joy Graham, Adam Downing, Jim Finley

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