The Land Use-Transportation-Energy Connection

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4.7.11
Overall, vehicle miles traveled declined as accessibility, density and/or land-use mixing increased.

- Ewing and Cervero, 2001
Nodes & Connections
Land Use Goals

Trend

Workshop

Core

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Land Consumed by Development

- Trend: 124 square miles
- Workshop: 25 square miles
- Core: 25 square miles

Annual Transit Ridership

- 2005: 1,900,000 riders
- Trend: 4,100,000 riders
- Workshop: 5,800,000 riders
- Core: 10,800,000 riders

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Drive to Work?

- Nationally, transportation costs account for 21% of all household expenses.
- Most families spend more on driving than health care, education, or food.
- Driving is Vermont’s single largest contribution to greenhouse gas emissions (more than 40%).

Drive to Work?

- **Suburban Avg. (239 MBTU)**: 125 Millions of BTUs per Year
  - Transportation Use: 114
  - Household Use: 71

- **Suburban Green (158 MBTU)**: 87
  - Transportation Use: 71
  - Household Use: 71

- **Urban Avg. (136 MBTU)**: 35
  - Transportation Use: 101
  - Household Use: 56

- **Urban Green (82 MBTU)**: 26
  - Transportation Use: 56
  - Household Use: 56

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Land Use-Energy
How we grow matters
State Policies
State Land Use Programs

Municipal and Regional Planning Development Act
Supports mixed-use development through comprehensive planning and implementation

Programs are intended to help . . .

- Develop a comprehensive local or regional plan that implements the State’s land use goals
- Implement regulatory and non-regulatory tools to guide growth
- Support development in appropriate places
- Integrate various land use needs
State Smart Growth Incentives

1st Generation Programs
   Designates Downtowns / Villages
   Target resources to fix what we have

2nd Generation Programs
   Growth Center / Vermont Neighborhoods
   Plan for compact growth in and adjacent to designated areas

Programs are intended to help . . .
   • Preserve rural character and the working landscape
   • Conserve natural and historic resources
   • Support development in appropriate places
   • Invest efficiently in public infrastructure
White River Junction, Vt. in the future.
Everyone plays an important part

- Directing limited funding (infrastructure, grants...)
- Location of buildings
- Clear goals and strategies in regional and local plans
- Local energy committees
- Developing for community energy systems
- TOD – working with providers
- Designing for transportation alternatives
- Site orientation – for renewable
- Location – near homes/services/transit
- Incentives for employees
questions?

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