

# Economic Value of Working Lands





# Green Valley Institute

a partnership among

**The Last Green Valley's  
Quinebaug Shetucket National Heritage Corridor**

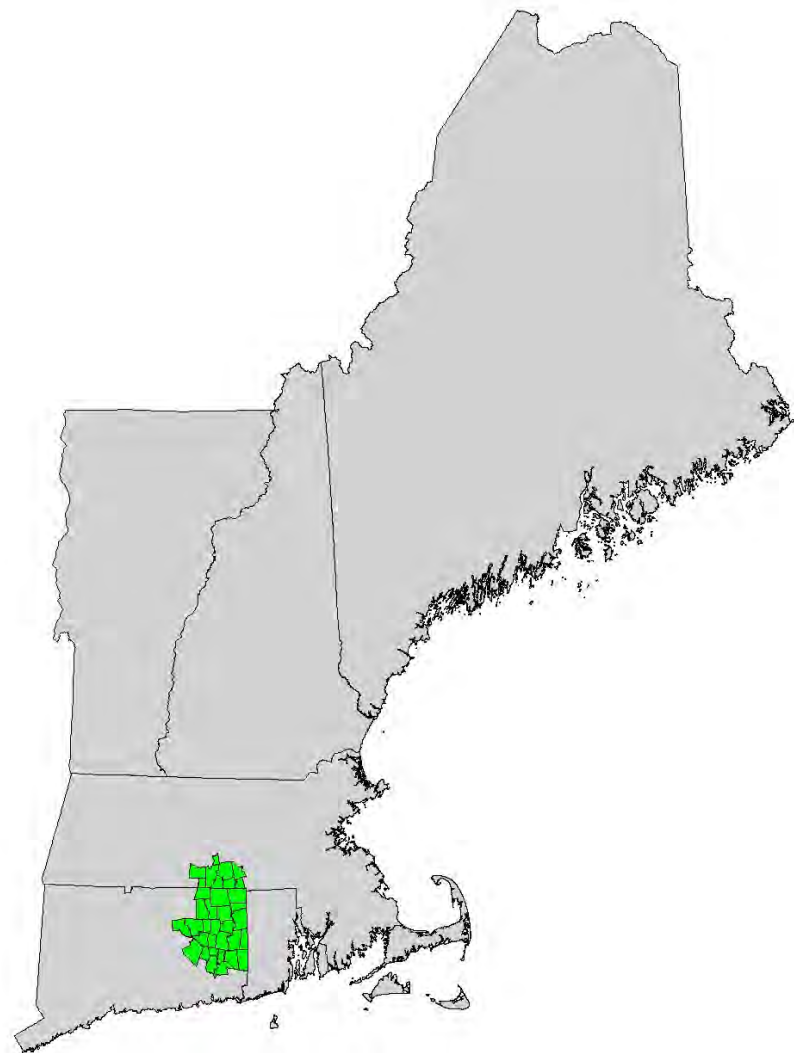
and the

**UConn College of Agriculture and Natural Resources  
UMass Extension, The Nature Conservancy, and others**

**Paula Stahl, LLA, ASLA, AICP**  
*Community and Finance Educator*  
*Co-Director of the Green Valley Institute*

## The Last Green Valley

- One of the first Heritage Regions in United States
- 1994 Act of Congress
- 1,086 square miles
- 35 Towns



[www.tlgv.org](http://www.tlgv.org)



*"The Last  
Green Valley"*

# Last Green Valley Farms

556 Agriculture and related businesses

TLGV survey – 331 respondents

		<u>Considering:</u>	<u>Primary Issue:</u>
70%	<b>Food production</b> <ul style="list-style-type: none"> <li>• Vegetable</li> <li>• Dairy and hay</li> <li>• Meat</li> <li>• Fruit</li> </ul>	<i>expansion</i> 47% <i>diversify</i> 50%	<i>financial</i> <i>marketing</i>
30%	<b>Other</b> <ul style="list-style-type: none"> <li>• Nursery</li> <li>• Forest</li> <li>• Equine</li> </ul>	<i>expansion</i> 46% <i>diversify</i> 45%	<i>economy</i>



# Economics of Land Use

## Municipalities

Need local tax revenue to support services

# Economics of Land Use

## A Balancing Act

Local tax  
revenue

Cost for  
services



# Economics of Land Use

## How the Mill Rate is determined

Town Assessor

Compiles list of Property Values:

Finance Board

Compiles Budget:

Real Estate – Homes

Anticipated Revenues

Real Estate – Commercial & Other

Board of Education Budget

Motor Vehicles

Town Government Budget

Personal Property (Commercial)

Capital Projects

Subtracts Non-Taxable Property

Bond Payments

Grand List

Divide

Amount of Local Tax

=

MILL RATE

MAKE CHECKS		REAL ESTATE 2003			TAX BILL		DESCRIPTION	
<p>PAYABLE TO:            TOWN OF CORRIDOR            P.O. BOX 487            CORRIDOR TOWN CT 06525-0487</p> <p>See the back of this bill for information on the reverse side. Questions involving assessments or exemptions should be directed to the assessor.</p> <p>If payment is not received within one month of the Date Due, the installment will become delinquent and accrue interest at the rate of 1 1/4% per month (18% annually) from the Date Due. The minimum interest charge is \$2.00 as specified by Connecticut State Statute.</p> <p>THIS IS THE ONLY TAX BILL YOU WILL RECEIVE. No separate mailings will be made. Mail proper stub with each payment, or bring entire bill when paying in person. If receipt is desired, mail this entire bill and a stamped self-addressed envelope.</p>								
PLAT NUMBER	DIST.	BANK	ON GRAND LIST	TOTAL TAX DUE	FIRST PAYMENT DUE	SECOND PAYMENT DUE		
02 3 0084313	2		OCTOBER 1, 2002		07/01/2002	01/01/2003		
TOWN	MILL RATE	GROSS ASSESSMENT	EXEMPTION	NET ASSESSMENT				
51447900				\$12,670				
<p>123 CENTER ST            CORRIDOR TOWN CT 06525-2715</p> <p>TOWN MILL 37-20</p>								

# Economics of Land Use

## Types of Land Use

### Developed:

**Residential**

**Commercial / Industrial**

### Undeveloped:

**Vacant land**

**Protected open space**

**Working lands**

# Economics of Land Use

## Analytical Methods

- ❖ **Cost of Community Services Study**

Fiscal analysis by land use category

- ❖ **Fiscal Impact Analysis**

The long term fiscal effect of one project

- ❖ **Build-out Analysis**

The maximum development possible

# Cost of Community Services Study

- ❖ **Developed by American Farmland Trust in 1986**
  
- ❖ **Tool to show cost to provide town services on a land use basis**
  
- ❖ **Land use categories used**
  - **Residential - including apartments**
  - **Commercial / Industrial**
  - **Vacant / Protected Open Space / Working Lands**

# Cost of Community Services Study

## **Pros:**

- ❖ **Establishes the Fiscal Effect of Development**
- ❖ **Valuable as Trend Analysis**
  - ❖ Land use costs in general by category
  - ❖ Change in study results over time as land use shifts
- ❖ **Compare to other towns**

## **Cons:**

- ❖ **Does not differentiate new development**
- ❖ **Development benefits limited to fiscal**
- ❖ **Effect on Community as a whole omitted**

## BUDGET

Town of Lebanon  
Cost of Community Services  
Fiscal Year 2006-07

	2006-2007 Budget Total
<b>General Fund Revenue</b>	
Tax Revenue	
Real Estate Tax Revenue at 25.3 mills	10,548,025
Personal Property Tax Revenue	488,894
Motor Vehicle Tax Rev(incl prorated)	1,319,797
Prior Tax	50,000
Interest/Liens	108,600
	<hr/> 12,515,316
<b>Intergovernmental Revenues</b>	
Education Assistance	4,650,179
Transportation	204,848
Vo-Ag Grant	70,520
State-Const. Prin	417,375
State Const. Interest	92,772
Boats	2,507
PILLOT (In Lieu Taxes)	37,951
Circuit Breaker	33,000
Elderly Freeze	1,600
Add Vets Exemption	4,100
Disabled	300
New Machinery	29,000
Mash-Pequot	62,866
Misc - State	100
Misc	
	<hr/> 5,607,118
<b>Local Revenue</b>	
Interest	75,000
Utilities Direct	62,000
Town Clerk Fees	75,000
Conveyance Tax	100,000
Misc	19,730
Copier	7,500
Building Permits	80,000
Sexton, COA Van, Bd Ed Reimb,Tsf	20,086
PZC,ZBA,WC fees	26,000
Solid Waste Facility	115,000
Recreation	
School Tuition	1,532,109
Misc	
	<hr/> 2,112,425
Transfers from LoCIP	
Transfers from TAR	98,517
Use of Fund Balance	
	<hr/> 98,517
<b>Total General Fund Revenues</b>	<hr/> 20,333,376

**Town of Lebanon**  
 Cost of Community Services  
 Fiscal Year 2006-07

BUDGET	Residential		Commercial/ Industrial		Open Space Farm Vacant		
	2006-2007 Budget Total	Residential	Commercial Industrial	Open Space Farm/Vacant			
<b>General Fund Revenue</b>							
Tax Revenue							
Real Estate Tax Revenue at 25.3 mills	10,548,025	8,798,418	83.4%	899,498	8.5%	850,109	8.1%
Personal Property Tax Revenue	488,894	0		488,894	100.0%	0	
Motor Vehicle Tax Rev(incl prorated)	1,319,797	1,201,016	91.0%	118,782	9.0%	0	
Prior Tax	50,000	41,706	83.4%	4,264	8.5%	4,030	8.1%
Interest/Liens	108,600	90,586	83.4%	9,261	8.5%	8,753	8.1%
	<u>12,515,316</u>	<u>10,131,726</u>	<u>81.0%</u>	<u>1,520,699</u>	<u>12.2%</u>	<u>862,891</u>	<u>6.9%</u>
<b>Intergovernmental Revenues</b>							
Education Assistance	4,650,179	4,650,179	100.0%	0		0	
Transportation	204,848	204,848	100.0%	0		0	
Vo-Ag Grant	70,520	70,520	100.0%	0		0	
State-Const. Prin	417,375	417,375	100.0%	0		0	
State Const. Interest	92,772	92,772	100.0%	0		0	
Boats	2,507	2,507	100.0%	0		0	
PILOT (In Lieu Taxes)	37,951	0		37,951	100.0%	0	
Circuit Breaker	33,000	33,000	100.0%	0		0	
Elderly Freeze	1,600	1,600	100.0%	0		0	
Add Vets Exemption	4,100	4,100	100.0%	0		0	
Disabled	300	300	100.0%	0		0	
New Machinery	29,000	0		29,000	100.0%	0	
Mash-Pequot	62,866	50,893	81.0%	7,639	12.2%	4,334	6.9%
Misc - State	100	81	81.0%	12	12.2%	7	6.9%
Misc		0	81.0%	0	12.2%	0	6.9%
	<u>5,607,118</u>	<u>5,528,175</u>	<u>98.6%</u>	<u>74,602</u>	<u>1.3%</u>	<u>4,341</u>	<u>0.1%</u>
<b>Local Revenue</b>							
Interest	75,000	60,716	81.0%	9,113	12.2%	5,171	6.9%
Utilities Direct	62,000	0		62,000	100.0%	0	
Town Clerk Fees	75,000	71,250	95.0%	2,250	3.0%	1,500	2.0%
Conveyance Tax	100,000	95,000	95.0%	3,000	3.0%	2,000	2.0%
Misc	19,730	15,972	81.0%	2,397	12.2%	1,360	6.9%
Copier	7,500	7,500	100.0%	0	0.0%	0	0.0%
Building Permits	80,000	76,000	95.0%	4,000	5.0%	0	
Sexton, COA Van, Bd Ed Reimb,Tsf	20,086	20,086	100.0%	0		0	
PZC,ZBA,W/C fees	26,000	24,700	95.0%	1,300	5.0%	0	
Solid Waste Facility	115,000	109,250	95.0%	5,750	5.0%	0	0.0%
Recreation		0	100.0%	0		0	
School Tuition	1,532,109	1,532,109	100.0%	0		0	
Misc		0	81.0%	0	12.2%	0	6.9%
	<u>2,112,425</u>	<u>2,012,583</u>	<u>95.3%</u>	<u>89,810</u>	<u>4.3%</u>	<u>10,031</u>	<u>0.5%</u>
Transfers from LoCIP		0	81.0%	0	12.2%	0	6.9%
Transfers from TAR	98,517	79,754	81.0%	11,971	12.2%	6,792	6.9%
Use of Fund Balance		0	81.0%	0	12.2%	0	6.9%
	<u>98,517</u>	<u>79,754</u>	<u>81.0%</u>	<u>11,971</u>	<u>12.2%</u>	<u>6,792</u>	<u>6.9%</u>
<b>Total General Fund Revenues</b>	<u>20,333,376</u>	<u>17,752,238</u>	<u>87.3%</u>	<u>1,697,081</u>	<u>8.3%</u>	<u>884,056</u>	<u>4.3%</u>



# COCS Study + 20 years

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**20 years - 2027**

# COCS Study + 20 years

## Assumptions:

No inflation

State Aid same

State Reimbursement rate same

Salaries are fixed

Mill rate is same

# COCS Study + 20 years

## Growth Assumptions:

- 10% population growth per decade
- Vacant land would be developed

## Budget Assumptions:

- Grand list would increase – tax revenue increase
- Some expenses would not change
- Some would increase at a higher rate
- Most would increase at the rate of growth

# 20 Year Forecast

	2006-2007 Budget	2026-27 Adjusted for Growth
Tax Revenue	12,515,316	14,571,213
Intergovernmental Revenue	5,705,635	5,710,561
Tuition Paid	1,532,109	-
Other Local Revenue	580,316	683,979
	<u>20,333,376</u>	<u>20,965,753</u>
Expenditures - Gen Government	3,857,863	4,649,539
Expenditures - Debt Pmts	1,475,513	-
Expenditures - Education	15,000,000	15,000,000
43% student population growth		
assume costs at 35%		5,250,000
less CT reimbursement of 32.4%		(1,701,000)
	<u>20,333,376</u>	<u>23,198,539</u>
Net Budget	0	(2,232,786)

575,937 Value of 1 mill in 2027  
3.9 Additional mills  
needed to balance

# 20 Year Forecast

Net Budget 

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 0 (2,232,786)

## Operating Expenses

575,937 Value of 1 mill in 2027  
3.9 Additional mills  
needed to balance

## Capital Expenditures:

Elementary and Middle School Expansion  
at \$45,000,000, less state reimbursement  
annual bond payment would be appx.

(1,800,000)  
3.1 Additional mills

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 7.0 Total Mills  
30% increase

# Development's Fiscal Impact

## New Residential Development

- ❖ Immediate – Additional tax revenue
- ❖ Gradually see need for increased municipal services:
  - Education
  - Public Works – new roads
  - Other town services – safety, library, recreation
- ❖ In time the population growth will mean capital expenditures for schools and other municipal buildings



# Development's Fiscal Impact

## Additional Commercial Development

- ❖ Immediate – Additional tax revenue
- ❖ Gradually see need for increased municipal services:
  - Increased workers from out of town using town services
  - Additional residential development
  - Shoppers from neighboring towns using town services
- ❖ Commercial real estate values appreciate much slower than residential reducing the grand list percentage mix over time



# Working Lands & Open Space Impact

- ❖ Maintaining and preserving farms, forest and open space may lower future taxes



- minimal municipal services required
- provides balance
- counters impacts of other uses both economically and environmentally

# Mill Rates

A thick, dark blue horizontal bar with rounded ends, positioned below the title.





1997



2009

# Mill Rates 1997-2007 CPI 29%

## Manchester

1997	24.26
1998	23.99
1999	23.79
2000	23.59
2001	24.79
2002	27.41
2003	32.90
2004	34.31
2005	36.07
2006	38.07
2007	40.14

**15.88 Mills 65%**

## Lebanon

1997	17.50
1998	18.50
1999	19.20
2000	19.90
2001	24.10
2002	25.30
2003	26.20
2004	27.40
2005	23.30
2006	27.20
2007	25.30

**7.8 Mills 45%**

## Thompson

1997	17.56
1998	17.56
1999	17.90
2000	18.40
2001	19.89
2002	21.64
2003	22.64
2004	23.63
2005	24.63
2006	15.91
2007	16.65

**-.9 Mills -5%**

Population Change

**9%**

**15%**

**2%**

# Community Growth Considerations

What's it all mean .....

Development is good–

provides needed tax revenue

brings new people into the community

Development comes with a price–

cost for added services

possible change in community character

# Community Growth Considerations

What's it all mean .....

Counterintuitive –

more development can mean higher taxes

And, the more land available for development, the more there is cause for concern for the fiscal future of the town

# Community Growth Considerations



# Summary

- ❖ **COCS Studies determine the cost to a community of various land uses**
- ❖ **COCS Studies show development over time increases mill rate**
  - ❖ **Property taxes are on average:**
    - Higher in more developed towns
    - Lower in more rural towns
- ❖ **‘Growing the Grand List’ may increase taxes**



TOWN	MILLRATE	GROSS ASSESSMENT	EXEMPTION
003	0064311	2	OCTOBER 2
003	07.00	112,818	0

51487900

JANE RESIDENT  
135 CENTER ST  
QUINNIPPOC TOWN CT 06469-2110

TOWN MILL 33.20

# Summary

- ❖ **Residential land use**
  - uses more in services than it brings in revenue



# Summary

- ❖ **Commercial / Industrial development**
  - brings in more revenue than it uses in services
  - usually increases residential development
  - possible town infrastructure costs
  - impacts rural feel of community
  - may have environmental concerns



# Summary

## ❖ Open Space

- brings in more revenue than it uses in services
- no/low demand for services
- retains rural character
- environmentally friendly



# Summary

## ❖ **Agriculture / Working Lands**

- **brings in more revenue than it uses in services**
- **part of the local economy**
- **high local multiplier effect**
  - **hire local workers**
  - **buy local supplies and services**
- **smart economic development**

**BONUS: tourism and rural character**



**Thank you.**

aerial photos courtesy of: Les Sweetnam  
[GLSweetnam.com](http://GLSweetnam.com)