



TEL 802.846-4490 FAX 802.846-4494

EMAIL info@ccrpcvt.org WEB www.ccrpcvt.org

30 Kimball Avenue • Suite 206 • South Burlington • Vermont 05403

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November 27, 2006

MEMORANDUM TO: FULL COMMISSION
FROM: PLAN REVIEW & UPDATE COMMITTEE
SUBJECT: HOUSEHOLD & EMPLOYMENT FORECASTS

The Plan Review and Update Committee recommends that CCRPC endorse the household and employment forecasts described in this memo that will be used by CCMPO when it develops the *2030 Metropolitan Transportation Plan (MTP)*.

Background

To perform transportation analyses, CCMPO has divided the County into 335 areas called Transportation Analysis Zones (TAZs). To prepare the *2030 Metropolitan Transportation Plan (MTP)*, CCMPO will use its Transportation Model to examine conditions in the 335 TAZs in five-year increments from 2005 to 2030. To support this analysis, CCRPC is to prepare TAZ-level household and employment forecasts, in keeping with the 2000 CCMPO/CCRPC Memorandum of Understanding that provides,

The CCMPO's MTP shall be developed in consultation with the CCRPC and incorporate land use and demographic assumptions endorsed by the CCRPC.

At the November 9, 2005 meeting of the CCMPO/CCRPC Joint Executive Committee, the two organizations agreed that forecasts prepared for the *2006 Regional Plan* and the *2030 MTP* should describe the future as we expect it to be, not as what we want it to be.

The first step in preparing the TAZ-level forecasts was to forecast Countywide households and employment. At the October 23, 2006 CCRPC meeting, the Commission endorsed such Countywide household and employment forecasts (see Table 1) that are in keeping with the County's recent historical growth trends (see Table 2).

The next step in preparing the TAZ forecasts is to allocate the Countywide forecasts to TAZs. In 2005, CCRPC staff proposed using CCMPO's/CCRPC's Decision Support System (DSS) to do this, because it was hoped that DSS would consider many of the factors used by households and employers to choose locations. However, a defect in the way that the DSS' Forecast Module calculates future employment precluded using DSS.

This meant that the Land Use Allocation Module (LUAM) of CCMPO's Transportation Model is the only available model to allocate the Countywide forecasts to TAZs. CCRPC Staff used a two-part method with LUAM to generate TAZ forecasts (see below).

MISSION

To serve Chittenden County and its communities through an effective regional planning process characterized by communication, facilitation, education, collaboration, and technical assistance.

Table 1
 2006 REGIONAL PLAN'S FORECASTED POPULATION,
 CCRPC FORECASTED HOUSEHOLDS, &
 LOUIS BERGER'S FORECASTED EMPLOYMENT, 2005-2030

| County Totals | 2005 | 2010 | 2015 | 2020 | 2025 | 2030 |
|-------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Population | 151,500 | 157,400 | 163,000 | 170,000 | 180,000 | 190,000 |
| Households* | 59,580 | 63,210 | 66,800 | 71,200 | 77,000 | 83,000 |
| Employment** | 129,791 | 137,465 | 145,116 | 153,809 | 163,000 | 172,718 |
| Average Annual Rate of Growth | 2000-2005 | 2005-2010 | 2010-2015 | 2015-2020 | 2020-2025 | 2025-2030 |
| Population | 0.65% | 0.77% | 0.70% | 0.84% | 1.15% | 1.09% |
| Households | 1.11% | 1.19% | 1.11% | 1.28% | 1.58% | 1.51% |
| Employment | 0.89% | 1.16% | 1.10% | 1.17% | 1.17% | 1.17% |

*CCMPO's Transportation Model adjusts the household forecasts for 2005, 2010, and 2015 to account for developments that already have been permitted by municipalities. It also adjusts the forecasted numbers of trip attractions (employees) so that they "balance" with forecasted trip productions (households).

**These estimates of employment include wage & salary workers, proprietorships & self-employed, and farm workers. CCMPO's Transportation Model requires that these forecasts be adjusted to reflect only wage & salary employment ("covered employment"). This adjustment is done on the basis of the ratio of covered employment to total employment in the year 2000.

Table 2
 CHITTENDEN COUNTY POPULATION, HOUSEHOLDS & EMPLOYMENT, 1960-2000

| County Totals | 1960 | 1970 | 1980 | 1990 | 2000 |
|-------------------------------|-----------|-----------|-----------|-----------|---------|
| Population* | 74,425 | 99,131 | 115,534 | 131,781 | 146,571 |
| Households* | 19,907 | 27,582 | 38,529 | 48,475 | 56,452 |
| Employment** | - | 49,427 | 67,242 | 99,747 | 124,203 |
| Average Annual Rate of Growth | 1960-1970 | 1970-1980 | 1980-1990 | 1990-2000 | |
| Population | 2.91% | 1.54% | 1.32% | 1.07% | |
| Households | 3.31% | 3.40% | 2.32% | 1.54% | |
| Employment | - | 3.13% | 4.02% | 2.22% | |

*U.S. Dept. of Commerce, Bureau of the Census, U.S. Decennial Census.

** Bureau of Economic Analysis, Regional Economic Information System. These estimates of employment include wage & salary workers, proprietorships & self-employed workers, and farm workers. The BEA estimated employment in 2000 is 119,559. To properly calibrate Berger's forecasting model requires reestimating the base year (2000) employment to be 124,203.

Overview of LUAM

To prepare TAZ-allocations of the Countywide forecasts, LUAM requires data on the existing numbers of households and employment in each TAZ. The only available estimates of this information are two GIS data layers developed and used by CCMPO/CCRPC:

- ◆ Housing Points – Identifies the locations of housing units* and
- ◆ Employment Points – Identifies the locations of employers (and their numbers of employees).

For 2005, LUAM estimates the number of households (or employment) in each TAZ by totaling

- ◆ The Housing Points data (or the Employment Points data) and **
- ◆ The amount of households (or employment) corresponding to developments approved by municipal development review processes (the Permitted Land Use file).***

For 2010-2030, LUAM allocates to each TAZ the proportion of the total Countywide households or employment forecasted for that year equal to the proportion of that TAZ's attractiveness score to the total of the attractiveness scores for all TAZs. Each TAZ's attractiveness score is calculated on the basis of

- ◆ The estimated travel times on the planned transportation network from each TAZ to every other TAZ and the amount of households and employment in each of those TAZs (a TAZ with lower travel times to TAZs with more households and employment has a better attractiveness score) and
- ◆ The amount of developable land in each TAZ (a TAZ with less developable land has a better attractiveness score).

In making allocations, LUAM constrains its applications of the attractiveness scores in two ways:

- ◆ It includes in each TAZ the households and employment corresponding to developments that already have been approved in municipal development review processes (the Permitted Land Use File) and
- ◆ It limits the total households and employment in each TAZ to totals calculated on the basis of municipal and State development regulations (the Allowable Land Use File).

In summary, LUAM allocates portions of the County's forecasted growth in households and employment to those TAZs that

- ◆ Are more accessible (relative to all other TAZs) to development in all of the TAZs and
- ◆ Are themselves more developed (relative to all other TAZs)
- ◆ Until these TAZs are built-out (reach the maximums set by the Allowable Land Use File).

* The Housing Points data layer counts "housing units," which are different from the "households" used by LUAM. A housing unit is a building or a part of a building that could be occupied by a household;. A household is one or more people that reside together. Consequently, the housing points data have been adjusted by deducting estimates of the number of unoccupied housing units from total housing units in order to estimate the number of households.

**The Housing Points data have been updated to reflect 2004 amounts. The Employment Points data have been updated to reflect 2006 amounts.

***The Permitted Land Use data are as reported by Louis Berger Group in its preparation of the CIRC-Willison Environmental Impact Statement.

Initial LUAM Allocations

LUAM's TAZ-level allocations can be aggregated to yield household and employment allocations for each of the County's 19 municipalities. In many of the 11 municipalities located outside of the County's more urbanized core (see Map 1), the initial LUAM allocations of the forecasted County-wide households and/or employment are less than what would be expected, given recent trends* in these municipalities (see the shaded rows of Table 3 and Table 4). In many of these 11 communities, the bulk of forecasted household and employment growth results from the Permitted Land Use data reported for 2005 and 2010. That is, LUAM's TAZ-attractiveness scores account for very little forecasted growth in many of these communities.

In recent decades, the percentage of total County households in these 11 non-core municipalities increased slightly (1980: 20.46%, 1990: 22.16%, and 2000: 22.29%) as well as the percentage of total County employment in these 11 non-core municipalities (1980: 5.1%, 1990: 6.1%, and 2000: 6.5%). Contrary to these trends, the initial LUAM allocations would result in declining shares of households and employment in the 11 non-core municipalities (2030 households: 16.1% and 2030 employment: 6.0%). Regardless of whether such declines are or are not desirable, they are not in keeping with the County's recent historical experience.

Recommended Forecasts

Table 5 presents recommended forecasts that adjust the LUAM allocations in Table 3 as follows.

In each of the **11 non-core municipalities** (shaded in Table 5)

- ◆ **2005** households and employment are based on adding the the Permitted Land Use file to the 2000 Housing Points and Employment Points data layers.
- ◆ **2010 to 2030** households and employment are based on
 - ◇ The municipality's average annual rates of change over a recent period that represents its anticipated 2005-2030 growth (determined after consulting with the plans, planning staff, and/or planning boards of these municipalities). If the number of households or employment in the Permitted Land Use file in 2010 or 2015 is greater than the amount based on the rate of anticipated change, then the Permitted Land Use file data are substituted.
 - ◇ Households or employment never exceeds the amounts in the Allowable Land Use file.
- ◆ Forecasted households and employment are assigned to the **TAZs** in the municipality
 - ◇ In proportion to the average of two factors:
 - ◆ Each TAZ's share of the municipality's total Allowable Land Use (used as a summary measure of the municipality's community development policies) and
 - ◆ Each TAZ's share of the municipality's remaining undeveloped development capacity.
 - ◇ If the number of households or employment in the Permitted Land Use file in 2010 or 2015 for a TAZ is greater than the forecasted amount based on the expected municipal rate of change, then the Permitted Land Use file data are substituted.

* The 20-year period from 1980 to 2000 is close in duration to the 25-year forecast period. However, the County experienced relatively high rates of growth from 1980 to 1990 that are less likely to occur during 2005-2030 than the 1990-2000 growth rates. Consequently, most evaluations of the forecasts are based on the 1990-2000 period which is regarded to be more representative of the County's anticipated growth from 2005 to 2030.

Map 1
TRANSPORTATION ANALYSIS ZONES (TAZs)
IN 8 MUNICIPALITIES INSIDE THE CORE AND 11 MUNICIPALITIES OUTSIDE THE CORE

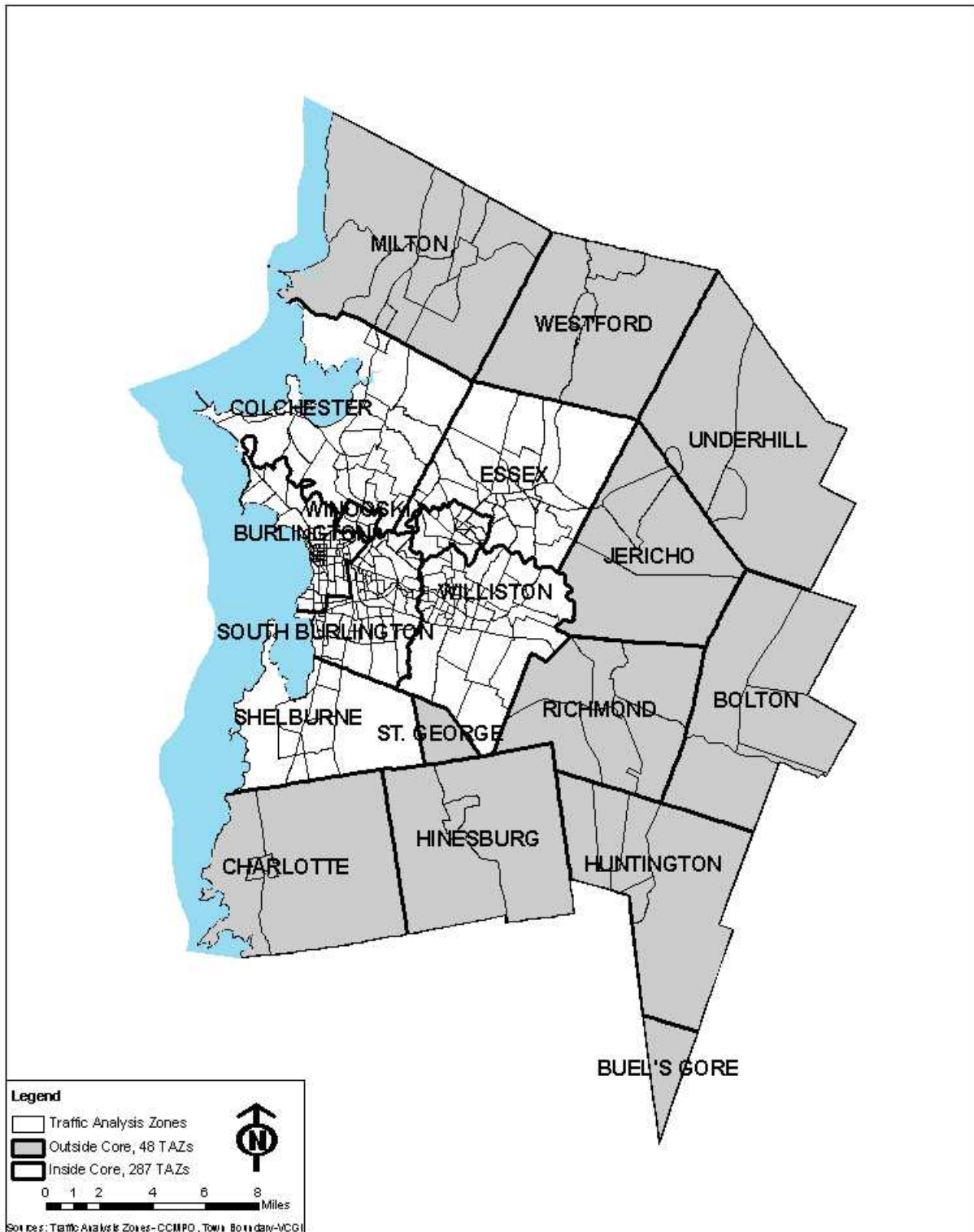


Table 3
INITIAL LUAM 2005-2030 ALLOCATIONS

| Municipal Households (H) & Employment (E) ^a | | LUAM | | | | | | | | | | | Average Annual Rate of 1990-2000 Change | |
|--|------|---------------------------------|------------------------|---------------------------------|-----|---|---------------------|--------|--------|--------|--------|--------|---|---|
| | | Data Assumptions | | | | | Initial Allocations | | | | | | | |
| | | Allowable Land Use ^f | 2000 Data ^e | Permitted Land Use ^d | | | 2005 | 2010 | 2015 | 2020 | 2025 | 2030 | | Average Annual Rate of 2005-2030 Change |
| 2005 | 2010 | | | 2015 | | | | | | | | | | |
| Bolton | H | 959 | 414 | 7 | 0 | 0 | 422 | 422 | 422 | 422 | 425 | 430 | 0.08% | 0.03% |
| | E | 285 | 176 | 0 | 0 | 0 | 176 | 176 | 176 | 176 | 176 | 176 | 0.00% | 0.59% |
| Buel's Gore | H | 10 | 10 | 0 | 0 | 0 | 10 | 10 | 10 | 10 | 10 | 10 | 0.00% | 47.88% |
| | E | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00% | 0.00% |
| Burlington | H | 25,282 | 19,898 | 396 | 212 | 0 | 20,295 | 20,857 | 22,320 | 24,679 | 25,182 | 25,342 | 0.89% | 0.79% |
| | E | 39,072 | 30,062 | 231 | 125 | 0 | 30,337 | 30,586 | 30,911 | 31,235 | 31,536 | 31,840 | 0.19% | 0.22% |
| Charlotte | H | 1,370 | 1,304 | 32 | 11 | 0 | 1,336 | 1,347 | 1,347 | 1,347 | 1,348 | 1,350 | 0.04% | 1.62% |
| | E | 846 | 560 | 30 | 0 | 0 | 590 | 591 | 592 | 594 | 596 | 599 | > 0.01% | 2.62% |
| Colchester | H | 13,104 | 6,533 | 240 | 388 | 0 | 6,775 | 7,168 | 7,195 | 7,327 | 7,748 | 8,576 | 0.93% | 1.99% |
| | E | 49,728 | 7,545 | 502 | 601 | 0 | 8,148 | 9,003 | 9,657 | 10,403 | 11,227 | 12,126 | 1.61% | 5.71% |
| Essex Junction | H | 6,144 | 3,570 | 34 | 504 | 0 | 3,604 | 4,119 | 4,177 | 4,420 | 5,047 | 5,805 | 1.93% | 0.43% |
| | E | 24,791 | 8,608 | 85 | 19 | 0 | 8,701 | 8,774 | 8,992 | 9,248 | 9,509 | 9,787 | 0.47% | 1.66% |
| Essex Town | H | 7,351 | 3,895 | 123 | 328 | 0 | 4,020 | 4,351 | 4,371 | 4,462 | 4,748 | 5,296 | 1.11% | 2.63% |
| | E | 23,884 | 4,618 | 155 | 826 | 0 | 4,786 | 5,665 | 5,859 | 6,099 | 6,342 | 6,621 | 1.31% | 1.66% |
| Hinesburg | H | 3,073 | 1,532 | 54 | 127 | 0 | 1,586 | 1,713 | 1,715 | 1,724 | 1,751 | 1,807 | 0.52% | 1.73% |
| | E | 5,031 | 795 | 0 | 0 | 0 | 796 | 799 | 810 | 822 | 834 | 849 | 0.26% | -0.07 |
| Huntington | H | 1,146 | 682 | 63 | 7 | 0 | 746 | 753 | 753 | 753 | 755 | 761 | 0.08% | 1.91% |
| | E | 1,002 | 144 | 10 | 0 | 0 | 154 | 154 | 154 | 155 | 156 | 157 | 0.76% | 7.53% |
| Jericho | H | 2,262 | 1,711 | 32 | 35 | 0 | 1,743 | 1,778 | 1,778 | 1,781 | 1,792 | 1,813 | 0.16% | 2.00% |
| | E | 2,345 | 759 | 26 | 0 | 0 | 785 | 786 | 791 | 797 | 803 | 811 | 0.13% | 2.67% |
| Milton | H | 6,014 | 3,357 | 126 | 119 | 0 | 3,485 | 3,604 | 3,607 | 3,626 | 3,693 | 3,829 | 0.38% | 1.84% |
| | E | 22,355 | 2,601 | 227 | 0 | 0 | 2,844 | 2,881 | 2,969 | 3,069 | 3,196 | 3,342 | 0.65% | 5.46% |
| Richmond | H | 5,228 | 1,377 | 80 | 37 | 0 | 1,458 | 1,495 | 1,499 | 1,517 | 1,573 | 1,686 | 0.58% | 1.16% |
| | E | 1,713 | 836 | 10 | 0 | 0 | 847 | 850 | 858 | 867 | 878 | 890 | 0.20% | 2.59% |
| St. George | H | 670 | 260 | 11 | 0 | 0 | 271 | 271 | 272 | 276 | 288 | 312 | 0.57% | -0.03% |
| | E | 267 | 46 | 0 | 0 | 0 | 47 | 48 | 51 | 54 | 58 | 62 | 1.11% | 8.85% |

(Continued)

Table 3
INITIAL LUAM 2005-2030 ALLOCATIONS
(Continued)

| Municipal Households (H) & Employment ^a (E) | LUAM | | | | | | | | | | | | Average Annual Rate of 1990-2000 Change |
|--|---------------------------------|------------------------|---------------------------------|-------|------|---------------------|---------|---------|---------|---------|---------|---|---|
| | Data Assumptions | | | | | Initial Allocations | | | | | | | |
| | Allowable Land Use ^b | 2000 Data ^c | Permitted Land Use ^d | | | 2005 | 2010 | 2015 | 2020 | 2025 | 2030 | Average Annual Rate of 2005-2030 Change | |
| | | | 2005 | 2010 | 2015 | | | | | | | | |
| Shelburne H | 3,997 | 2,452 | 330 | 175 | 0 | 2,782 | 2,960 | 2,974 | 3,031 | 3,198 | 3,487 | 0.91% | 1.97% |
| E | 9,001 | 3,093 | 154 | 0 | 0 | 3,253 | 3,268 | 3,312 | 3,363 | 3,413 | 3,464 | 0.25% | 2.89% |
| South Burlington H | 15,292 | 5,912 | 1,170 | 1,100 | 184 | 7,091 | 8,252 | 8,716 | 9,946 | 13,027 | 15,224 | 3.10% | 2.03% |
| E | 72,290 | 18,098 | 371 | 404 | 0 | 18,971 | 20,457 | 22,943 | 25,853 | 28,897 | 31,931 | 2.10% | 2.57% |
| Underhill H | 2,087 | 1,150 | 4 | 0 | 0 | 1,154 | 1,154 | 1,155 | 1,157 | 1,167 | 1,188 | 0.11% | 1.21% |
| E | 2,060 | 207 | 0 | 0 | 0 | 207 | 207 | 208 | 209 | 210 | 214 | 0.13% | - .71% |
| Westford H | 1,419 | 734 | 24 | 35 | 0 | 758 | 793 | 793 | 795 | 802 | 816 | 0.29% | 1.93% |
| E | 3,951 | 219 | 0 | 0 | 0 | 219 | 219 | 221 | 224 | 227 | 234 | 0.26% | 7.92% |
| Williston H | 8,352 | 2,934 | 360 | 389 | 275 | 3,294 | 3,684 | 3,981 | 4,110 | 4,512 | 5,337 | 1.95% | 5.18% |
| E | 40,792 | 12,105 | 1,024 | 1,149 | 0 | 13,423 | 15,257 | 16,808 | 18,523 | 20,371 | 22,463 | 2.08% | 7.59% |
| Winooski H | 3,595 | 2,608 | 322 | 300 | 330 | 2,930 | 3,235 | 3,586 | 3,680 | 3,802 | 3,802 | 1.05% | 0.41% |
| E | 7,623 | 2,745 | 320 | 273 | 0 | 3,071 | 3,372 | 3,492 | 3,620 | 3,752 | 3,887 | 0.94% | - 1.52 |
| 8 Core Munic. H | 83,117 | 47,802 | 2,975 | 3,396 | 789 | 50,791 | 54,626 | 57,320 | 61,655 | 67,264 | 72,869 | 1.15% | 1.53% |
| E | 267,181 | 86,874 | 2,842 | 3,397 | 0 | 90,690 | 96,382 | 101,974 | 108,344 | 115,047 | 122,119 | 1.19% | 2.01% |
| 11 Non-Core Munic. H | 24,238 | 12,531 | 433 | 371 | 0 | 12,969 | 13,340 | 13,351 | 13,408 | 13,604 | 14,002 | 0.31% | 1.61% |
| E | 39,855 | 6,343 | 303 | 0 | 0 | 6,665 | 6,711 | 6,830 | 6,967 | 7,134 | 7,334 | 0.38% | 2.77% |
| County Totals H | 107,355 | 60,333 | 3,408 | 3,767 | 789 | 63,760 | 67,966 | 70,671 | 75,063 | 80,868 | 86,871 | 1.25% | 1.54% |
| E | 307,036 | 93,217 | 3,145 | 3,397 | 0 | 97,355 | 103,093 | 108,804 | 115,311 | 122,181 | 129,453 | 1.15% | 2.07% |

^aEmployment in Table 3 is “covered employment,” not “total employment” that is depicted in Tables 1 & 2.

^bAllowable Land Use File = CCMP’s / CCRPC’s GIS file that estimates the maximum number of households and employees authorized by municipal and State regulations.

^c2000 Data = CCMP’s / CCRPC’s Housing Points Data Layer (housing units) and Employment Points Data Layer.

^dPermitted Land Use File = Number of households and employees already authorized by municipalities as reported by Louis Berger Group.

Table 4
RECENT GROWTH IN HOUSEHOLDS & EMPLOYMENT^a

| Municipal Households (H) & Employment (E) | | Historical Data ^b | | | Growth Trends | |
|---|---|------------------------------|--------------|--------------|---|---|
| | | 1980 | 1990 | 2000 | Average Annual Rate of 1980-2000 Change | Average Annual Rate of 1990-2000 Change |
| Bolton | H | 260 | 367 | 368 | 1.75% | 0.03% |
| | E | 120 | 199 | 211 | 2.86% | 0.59% |
| Buel's Gore | H | 4 | 1 | 6 | 2.05% | 47.88% |
| | E | 0 | 0 | 0 | 0.00% | 0.00% |
| Burlington | H | 13,107 | 14,680 | 15,885 | 0.97% | 0.79% |
| | E | 25,966 | 30,801 | 31,493 | 0.97% | 0.22% |
| Charlotte | H | 824 | 1,096 | 1,287 | 2.25% | 1.62% |
| | E | 389 | 437 | 566 | 1.89% | 2.62% |
| Colchester | H | 3,872 | 5,047 | 6,144 | 2.34% | 1.99% |
| | E | 1,894 | 4,915 | 8,562 | 6.50% | 5.71% |
| Essex Junction | H | 2,480 | 3,267 | 3,409 | 1.60% | 0.43% |
| | E | ^a | ^a | ^a | 1.92% ^a | 1.66% ^a |
| Essex Town | H | 2,204 | 2,779 | 3,604 | 2.49% | 2.63% |
| | E | 10,716 | 13,295 | 15,672 | 1.92% ^f | 1.66% |
| Hinesburg | H | 895 | 1,345 | 1,596 | 2.93% | 1.73% |
| | E | 633 | 860 | 854 | 1.51% | - 0.07 |
| Huntington | H | 383 | 573 | 692 | 3.00% | 1.91% |
| | E | 26 | 91 | 188 | 9.58% | 7.53% |
| Jericho | H | 1,052 | 1,436 | 1,751 | 2.57% | 2.00% |
| | E | 325 | 538 | 700 | 3.91% | 2.67% |
| Milton | H | 2,080 | 2,777 | 3,333 | 2.39% | 1.84% |
| | E | 560 | 1,390 | 2,366 | 7.47% | 5.46% |
| Richmond | H | 1,025 | 1,340 | 1,504 | 1.94% | 1.16% |
| | E | 414 | 777 | 1,004 | 4.53% | 2.59% |
| St. George | H | 236 | 265 | 264 | 0.56% | - 0.03% |
| | E | 35 | 18 | 42 | 0.92% | 8.85% |
| Shelburne | H | 1,613 | 2,165 | 2,632 | 2.48% | 1.97% |
| | E | 1,278 | 2,528 | 3,362 | 4.95% | 2.89% |
| South Burlington | H | 3,819 | 5,178 | 6,332 | 2.56% | 2.03% |
| | E | 7,409 | 13,545 | 17,469 | 4.38% | 2.57% |
| Underhill | H | 673 | 935 | 1,055 | 2.27% | 1.21% |
| | E | 153 | 312 | 289 | 3.23% | - .71% |
| Westford | H | 454 | 599 | 725 | 2.27% | 1.93% |
| | E | 70 | 91 | 195 | 5.26% | 7.92% |
| Williston | H | 1,217 | 1,763 | 2,921 | 4.48% | 5.18% |
| | E | 1,549 | 4,678 | 9,724 | 9.62% | 7.59% |
| Winooski | H | 2,330 | 2,826 | 2,944 | 1.18% | 0.41% |
| | E | 2,314 | 3,171 | 2,657 | 0.69% | - 1.52 |
| 8 Core Municipalities | H | 30,642 | 37,705 | 43,871 | 1.81% | 1.53% |
| | E | 51,126 | 72,933 | 88,939 | 2.81% | 2.01% |
| 11 Non-Core Municipalities | H | 7,886 | 10,734 | 12,581 | 2.36% | 1.61% |
| | E | 2,725 | 4,713 | 6,194 | 4.19% | 2.77% |
| County Totals | H | 38,528 | 48,439 | 56,452 | 1.93% | 1.54% |
| | E | 53,851 | 77,546 | 95,133 | 2.89% | 2.07% |

^aThe VT Department of Labor reports employment data for Essex Jct. as a part of Essex Town. Consequently, the Village's and Town's employment growth rates are the same.

Sources: Households = US Decennial Census;
Employment = VT Dept. of Labor "Annual Average Covered Employment, All Ownerships."

Table 5
RECOMMENDED MUNICIPAL HOUSEHOLD & EMPLOYMENT FORECASTS^a

| Municipal Households (H) & Employment (E) ^a | | Recommended Forecasts | | | | | | | | | | | | Average Annual Rate of 1990-2000 Change |
|--|-----------------|---------------------------------|------------------------|---------------------------------|-----|---|-----------------------------------|-------|-------|-------|--------|--------|---|---|
| | | Data Assumptions | | | | | Adjusted Allocations ^e | | | | | | | |
| | | Allowable Land Use ^f | 2000 Data ^c | Permitted Land Use ^d | | | 2005 | 2010 | 2015 | 2020 | 2025 | 2030 | Average Annual Rate of 2005-2030 Change | |
| 2005 | 2010 | | | 2015 | | | | | | | | | | |
| Bolton | H ^{e1} | 959 | 414 | 7 | 0 | 0 | 421 | 422 | 422 | 423 | 424 | 424 | 0.03% | 0.03% |
| | E ^{e1} | 285 | 176 | 0 | 0 | 0 | 176 | 181 | 187 | 192 | 198 | 204 | 0.59% | 0.59% |
| Buel's Gore | H ^{e1} | 10 | 10 | 0 | 0 | 0 | 10 | 10 | 10 | 10 | 10 | 10 | 0.00% | 47.88% |
| | E ^{e1} | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00% | 0.00% |
| Burlington | H | 25,282 | 19,898 | 396 | 212 | 0 | 20,294 | | | | | | | 0.79% |
| | E | 39,072 | 30,062 | 231 | 125 | 0 | 30,293 | | | | | | | 0.22% |
| Charlotte | H ^{e3} | 1,370 | 1,304 | 32 | 11 | 0 | 1,336 | 1,387 | 1,387 | 1,387 | 1,387 | 1,387 | 0.10% | 1.62% |
| | E ^{e2} | 846 | 560 | 30 | 0 | 0 | 590 | 648 | 711 | 781 | 846 | 846 | 1.46% | 2.62% |
| Colchester | H | 13,104 | 6,533 | 240 | 388 | 0 | 6,773 | | | | | | | 1.99% |
| | E | 49,728 | 7,545 | 502 | 601 | 0 | 8,047 | | | | | | | 5.71% |
| Essex Junction | H | 6,144 | 3,570 | 34 | 504 | 0 | 3,604 | | | | | | | 0.43% |
| | E | 24,791 | 8,608 | 85 | 19 | 0 | 8,693 | | | | | | | 1.66% ^f |
| Essex Town | H | 7,351 | 3,895 | 123 | 328 | 0 | 4,018 | | | | | | | 2.63% |
| | E | 23,884 | 4,618 | 155 | 826 | 0 | 4,773 | | | | | | | 1.66% ^f |
| Hinesburg | H ^{e4} | 3,073 | 1,532 | 54 | 127 | 0 | 1,586 | 1,713 | 1,713 | 1,745 | 1,802 | 1,860 | 0.64% | 1.73% |
| | E ^{e2} | 5,031 | 795 | 0 | 0 | 0 | 795 | 857 | 924 | 995 | 1,073 | 1,156 | 1.51% | -0.07 |
| Huntington | H ^{e3} | 1,146 | 682 | 63 | 7 | 0 | 745 | 792 | 841 | 894 | 949 | 1,009 | 1.22% | 1.91% |
| | E ^{e1} | 1,002 | 144 | 10 | 0 | 0 | 154 | 221 | 318 | 458 | 658 | 946 | 7.53% | 7.53% |
| Jericho | H ^{e1} | 2,262 | 1,711 | 32 | 35 | 0 | 1,743 | 1,963 | 2,211 | 2,262 | 2,262 | 2,262 | 1.05% ¹ | 2.00% |
| | E ^{e1} | 2,345 | 759 | 26 | 0 | 0 | 785 | 896 | 1,022 | 1,166 | 1,330 | 1,517 | 2.67% ¹ | 2.67% |
| Milton | H ^{e3} | 6,014 | 3,357 | 126 | 119 | 0 | 3,483 | 4,115 | 4,861 | 5,743 | 6,014 | 6,014 | 1.30% | 1.84% |
| | E ^{e1} | 22,355 | 2,601 | 227 | 0 | 0 | 2,828 | 3,891 | 5,352 | 7,358 | 10,120 | 13,929 | 5.46% | 5.46% |
| Richmond | H ^{e1} | 5,228 | 1,377 | 80 | 37 | 0 | 1,457 | 1,577 | 1,708 | 1,849 | 2,001 | 2,167 | 1.16% | 1.16% |
| | E ^{e1} | 1,713 | 836 | 10 | 0 | 0 | 846 | 961 | 1,092 | 1,241 | 1,411 | 1,603 | 2.59% | 2.59% |
| St. George | H ^{e2} | 670 | 260 | 11 | 0 | 0 | 271 | 280 | 290 | 300 | 310 | 320 | 0.67% | -0.03% |
| | E ^{e2} | 267 | 46 | 0 | 0 | 0 | 46 | 49 | 51 | 54 | 57 | 61 | 1.13% | 8.85% |

(Continued)

Table 5
RECOMMENDED MUNICIPAL HOUSEHOLD & EMPLOYMENT FORECASTS^a,
(Continued)

| Municipal Households (H) & Employment (E) ^a | Recommended Forecasts | | | | | | | | | | | | Average Annual Rate of 1990-2000 Change |
|--|---------------------------------|------------------------|---------------------------------|-------|-----|-----------------------------------|--------|--------|--------|--------|--------|--|---|
| | Data Assumptions | | | | | Adjusted Allocations ^e | | | | | | | |
| | Allowable Land Use ^f | 2000 Data ^c | Permitted Land Use ^d | | | 2005 | 2010 | 2015 | 2020 | 2025 | 2030 | Average Annual Rate of 2005-2030 Change ^e | |
| 2005 | | | 2010 | 2015 | | | | | | | | | |
| Shelburne H | 3,997 | 2,452 | 330 | 175 | 0 | 2,782 | | | | | | | 1.97% |
| E | 9,001 | 3,093 | 154 | 0 | 0 | 3,247 | | | | | | | 2.89% |
| South Burlington H | 15,292 | 5,912 | 1,170 | 1,100 | 184 | 7,082 | | | | | | | 2.03% |
| E | 72,290 | 18,098 | 371 | 404 | 0 | 18,469 | | | | | | | 2.57% |
| Underhill H ^{e1} | 2,087 | 1,150 | 4 | 0 | 0 | 1,154 | 1,226 | 1,301 | 1,382 | 1,468 | 1,559 | 1.21% | 1.21% |
| E ^{e2} | 2,060 | 207 | 0 | 0 | 0 | 207 | 243 | 284 | 333 | 391 | 458 | 3.23% | -.71% |
| Westford H ^{e1} | 1,419 | 734 | 24 | 35 | 0 | 758 | 834 | 918 | 1,010 | 1,111 | 1,222 | 1.93% | 1.93% |
| E ^{e2} | 3,951 | 219 | 0 | 0 | 0 | 219 | 283 | 366 | 472 | 611 | 789 | 5.26% | 7.92% |
| Williston H | 8,352 | 2,934 | 360 | 389 | 275 | 3,294 | | | | | | | 5.18% |
| E | 40,792 | 12,105 | 1,024 | 1,149 | 0 | 13,129 | | | | | | | 7.59% |
| Winooski H | 3,595 | 2,608 | 322 | 300 | 330 | 2,930 | | | | | | | 0.41% |
| E | 7,623 | 2,745 | 320 | 273 | 0 | 3,065 | | | | | | | -1.52 |
| 8 Core Municipalities H | 83,117 | 47,802 | 2,975 | 3,396 | 789 | 50,777 | | | | | | | 1.53% |
| E | 267,181 | 86,874 | 2,842 | 3,397 | 0 | 89,716 | | | | | | | 2.01% |
| 11 Non-Core Municipalities H | 24,238 | 12,531 | 433 | 371 | 0 | 12,964 | 14,226 | 15,491 | 16,988 | 17,721 | 19,183 | 1.58% | 1.61% |
| E | 39,855 | 6,343 | 303 | 0 | 0 | 6,646 | 8,230 | 10,307 | 13,055 | 16,704 | 21,515 | 3.27% | 2.77% |
| County Totals H | 107,355 | 60,331 | 3,407 | 3,767 | 789 | | | | | | | | 1.54% |
| E | 307,035 | 93,217 | 3,145 | 3,395 | 0 | | | | | | | | 2.07% |

^a Employment in Table 5 is “covered employment,” not “total employment” that is depicted in Tables 1 & 2.

^b Allowable Land Use File = CCMPO’s / CCRPC’s GIS file that estimates the maximum number of households and employees authorized by municipal and State regulations.

^c 2000 Data = CCMPO’s / CCRPC’s Housing Points Data Layer (housing units) and Employment Points Data Layer.

^d Permitted Land Use File = Number of households and employees already authorized by municipalities as reported by Louis Berger Group.

^e For the 11 Non-Core communities (shaded), allocations represent the community’s expected 2005-2030 growth (based on consultation with the plans, planning staff, and/or planning boards). For the 11 Non-Core Communities, these rates equal ¹ = 1990-2000 change ² = 1980-2000 change ³ = Other specific growth rate policy. For the 8 Core communities (unshaded), the allocations on based on each community’s adjusted LUAM allocations.

^f The 1990-2000 average annual rates of change for employment in Essex Junction & Essex Town are calculated on the basis of their combined employment (see footnote ^a in Table 4).

In each of the **8 core municipalities** (unshaded in Table 5)

- ◆ **2005** households and employment are based on adding the the Permitted Land Use file, to the Housing Points and Employment Points data layers.
- ◆ **2010 to 2030** households and employment are based on revised LUAM TAZ allocations
 - ◇ The Permitted Land Use file in 2010 and 2015 are applied and
 - ◇ LUAM allocations based on TAZ attractiveness (as previously described) of the remaining households or employment in the County after subtracting from the County totals the increased amounts of households or employment allocated to the 11 non-core municipalities. The reductions in the allocated County totals for households range from -1.3% in 2010 to -6.0% in 2030 and the reductions for employment range from -1.5% in 2010 to -11.0% in 2030.

If the recommended forecasts hold true, in 2030 the 11 non-core municipalities would have **22.1%** of the County's households (compared with 22.3% in 2000) and **16.6%** of the County's total employment (compared with 6.5% in 2000:).