

CVRPC Northwest Buildout Study Executive Summary

Spring 2007

I. Overview:

As part of the impact analysis for the proposed Circumferential Highway Project and in recognition of the possibility that explosive growth within Chittenden County over the past decade may be influencing development pressures in surrounding counties, VTrans, the Federal Highway Administration, and the US environmental Protection Agency facilitated “The Northwest Study”. The purpose behind this effort was to better understand the potential impact of the Highway on outlying areas, evaluate the ability of potentially affected municipalities to deal with new development, and to provide recommendations and tools to growth management. Accordingly, these entities contracted with the five Regional Planning Commissions in the study area (covering Addison, Chittenden, Franklin, Grand Isle, Lamoille and Washington Counties) to:

1. Project future Growth at the local level using state of the art growth management tools;
2. Evaluate each town’s ability to manage growth now and in the future and provide guidance in this regard; and
3. Provide a project overview including recommendations and strategies to help address local needs.

Each Region was responsible for designing its own program for the first two phases of the project. The third phase is being conducted by a consultant(s). Expected products for this component are discussed in Section IV of this summary and detailed in the Appendices (Section V).

II. Study Design:

In Central Vermont, municipalities participating in the study included Moretown, Duxbury, Middlesex, Montpelier, Berlin, Waterbury, and in a limited fashion, East Montpelier. Those communities selected/invited were determined by CVRPC to be those most impacted, or likely to be most impacted in the future, by the expansion of the Chittenden County metropolitan area and the construction of the Circumferential Highway. In this Region, the first two phases of the study entailed the development of a Development Potential Analysis and map as well as a so called “Buildout Analysis”. In addition, CVRPC developed a written analysis/summary for each community.

Step 1. Development Potential: Working with each municipality, CVRPC developed a list of features likely to affect the capacity for/probably of land development. Typically this list included such features as slope, wetlands, wildlife habitat, soil properties, stream buffers, and the availability of public water and/or sewer infrastructure. Each feature was assigned either a negative or positive point value based on its expected ability to either deflect or accommodate new growth. This evaluation system was used to assign land to various categories of development potential ranging from “Conserved Lands” to areas with “High Potential” for new growth. Townwide maps were produced using GIS.

Step 2. Buildout Analysis: Combining the results of the Development Potential Analysis with an array of existing data, (including zoning requirements such as minimum lot size and road frontage, tax parcels, and locations of existing development), CVRPC produced maps depicting potential future growth for each municipality. For most towns this analysis was restricted to residential development, however, commercial/industrial development potential was calculated and mapped for two of the participating municipalities. While the Buildout Analysis attempts to convey the general location and intensity of future growth it is not intended to suggest or predict the exact sites of future homes or businesses.

Step 3. Written Analysis: Following the mapping portion of the study, CVRPC's planning staff prepared a written report intended to provide an overview of growth and development issues for each municipality. This report provides a narrative on physical conditions, demographic (and other) trends, municipal plans and bylaws, and GIS results. A "*Conclusions*" section attempts to synthesize the above information, identifying important growth related issues and suggesting strategies to help guide development patterns so as to better serve each community's vision.

Following *Step 3*, CVRPC's planning and GIS staff presented the results findings of the study to the each municipality. Areas where CVRPC could provide further assistance where identified. In some cases one or more follow-up meetings were held and assistance is ongoing.

The highlights of the findings for each participating community are presented below. Buildout and Development Potential maps for each municipality appear in the *Appendices* of this report (Section VI).

III. Highlights of Individual Municipal Studies:

Berlin:

Overview:

While Berlin (population 2,888) functions as both a bedroom community and an employment center, its growth is primarily in its commercial and industrial sectors. Since 1990 Berlin has absorbed nearly 2000 jobs while adding only 327 residents. This trend is expected to continue, particularly in the northwest corner (or so called "Four Corners" or "Plateau" section of Town.)

It is apparent that the influence of Chittenden County has waned significantly by the time one reaches Berlin (Exits 7 and 6) on the Interstate. Unlike the Interstate communities which are closer to Burlington, it has witnessed relatively static commuting patterns (only 8.5% of the workforce travels to Chittenden County) and has maintained relatively

affordable housing prices. Clearly Berlin's emergence as a commercial center emanates largely from forces within the Central Vermont Region.

The Town wishes to encourage balanced growth in the future. The cornerstone of its planning program is an ambitious concept to create a new, more traditional, Town Center in the Four Corners area.

Results:

Berlin exhibits a relatively small percentage of highly buildable land compared to other Towns in this study. However, because of its comparatively higher zoning densities and relative paucity of public land, it yields much higher buildout numbers than any other participating municipality. CVRPC's GIS analysis estimates that almost 10,000 residential units and/or 10 million square feet of commercial space could be developed under the current regulatory framework. In the proposed Town Center zone, up to 200 residential units and 650,000 square feet of commercial space could be realized if built out at an even mix.

Considerations:

While Berlin's concept for a New Town Center is well conceived and laudable, it will be difficult to implement without some regulatory changes. The Town's existing regulations for this area offer no control over project size or design, no provisions for mixed use projects, nor any allowance for government, civic or public uses. In addition, immediately surrounding districts offer no protection from commercial sprawl.

Accordingly, CVRPC recommends the following strategies for the Town Center district:

- ∞ Creating a design control district at least the Town Center District, and perhaps for a buffer area in surrounding districts, as well.
- ∞ Establishing a size limit on commercial and office uses.
- ∞ Reexamining the list of allowed and prohibited uses.
- ∞ Reexamining density requirements
- ∞ Establishing provisions for mixed use projects.

CVRPC is continuing to work with the Berlin Town Center Committee and the Planning Commission on Town Center issues.

Moretown:

Overview:

Moretown (population 1,709) is a predominantly rural community located south of Interstate 89 and accessed from it via either Exit 9 (from the south) or Exit 10 (from the north). Geographically it lies in both the Winooski and Mad River Valleys. Moretown functions primarily as a bedroom community (though it does show some employment growth too) and is increasingly serving more distant employment center (Chittenden

County in particular) in that role. Consequently, it is experiencing rapid population and housing growth albeit primarily along back roads at low densities.

Much of the new growth is comprised of higher end single family homes. In fact, no multi-family housing has been developed over the past decade. Furthermore, Moretown's compact village can accommodate very little (if any) new development. While the Town Plan expresses the Town's desire to protect the Town's rural character and working landscape while adhering to traditional patterns of development, it also acknowledges that current trends run counter to this goal. To this end, the Plan considers a array of techniques for protecting resources, including a prohibition against development on steep slopes, and the implementation of subdivision regulations and overlay zones.

Results:

At the Town's request, CVRPC's development potential analysis and build-out model included only areas within 300 feet of roads within its Agricultural, Commercial and Village District zones. As such, almost three quarters of the Town (including land outside the road buffer in the above districts and all land in the 5 acre density Preserve District) was excluded from consideration – this despite the fact that over half of the residential units built between 2001 and 2206 were constructed in these same areas. Even looking through this lens, so, it appears that considerable development potential exists, at least in the Agricultural and Commercial Districts. About half of these zones are rated as having “High Development Potential” and another one quarter of the land area in these districts is rated as having “Moderate Potential” for development. With one acre zoning over most of the study area, this resulted in a build-out of approximately 3,900 units. The Village District was determined to have almost no growth potential.

Considerations:

Moretown would appear to face some challenges in achieving its settlement pattern goals – namely, increasing development pressure on its rural/resource lands (coupled with favorable development conditions in these areas) and a village core that is already at or near capacity. Some of the resource protection measures mentioned earlier may help further its objectives. Other strategies might include:

- ∞ Exploring new options regarding creative development/PUD's, including mandatory cluster development in overlay districts, and “sliding scale” density bonuses based upon road classification or proximity to developed areas (i.e., Village or Commercial District).
- ∞ Exploring the possibility of creating small, rural “hamlets” at appropriate locations.

- ∞ Considering mixed use (including residential) and village scale development in the vicinity of North Moretown as an alternative to Moretown Village. This area is adjacent to an existing urban center (Waterbury) two state highways (Routes 2 and 100), and existing sewer infrastructure.

Moretown may also wish to examine the development/buildout capacity of areas not included in the GIS analysis as these places appear likely to receive continued growth pressures as well.

CVRPC is currently working with the Planning Commission to evaluate the results and recommendations of the buildout study as part of the Town Plan update process.

Middlesex:

Overview:

Middlesex is a primarily rural bedroom community of about 1700 people. It is accessible via Exit 9 off I-89 and has been experiencing rapid population and housing growth. This growth is expected to continue, partly as a result of the community's expanding "commuter shed". Most of the new growth in Middlesex consists of single family residences on large lots along Class III roads.

The Town seeks to preserve its rural character, in part by promoting good subdivision design. In addition, the Town is pursuing a plan for the expansion of the Village area (and adjacent areas near the interstate interchange) as a more dense, mixed-use commercial center.

Results:

Almost all (94%) of Middlesex's land rated High or Medium for development potential is located in its two lowest density zones. Eighty percent of existing units occur here, as well. Less than 3% of Middlesex is zoned for densities of two acres or less and less than 50% of that is so zoned and developable. The proposed mixed use zone does contain favorable land, and as such, higher density development may indeed be possible. Town-wide however, under current zoning and identified development constraints, only about 700 new residential units could be developed. This total is, by far, the lowest of any municipality in this study.

Considerations:

Despite a reasonable supply of buildable land (over 11,000 acres rated High or Medium), Middlesex is extremely cautious of new development. However, due to its attractive location (near several job centers, including Waterbury, Montpelier and Chittenden County), it continues to grow at a rate beyond that suggested in its Town Plan. The Village/Exit 9 Development Plan contains an excellent framework for growth in an

appropriate location, but Middlesex does not create any incentive for more creative development in outlying areas. As such, the Plan's goals regarding rural character and resource protection are largely unaddressed. Furthermore, the Town's historic reluctance to alter policy to even accommodate growth at current rates leaves it in jeopardy of its paying insufficient attention to its statutory responsibilities to provide housing. Middlesex could benefit greatly from the implementation of regulatory provisions for creative subdivision design. In particular, some of the new PUD strategies enabled by recent changes in Vermont's Planning statutes (e.g. "mandatory cluster" and enhanced density bonuses) could help the Town realize residential growth more in keeping with its planning vision.

Note: As of March 2007, the Planning Commission was circulating a draft Town Plan update that incorporated some study results into the Land Use Chapter.

Montpelier:

Overview:

There are two Montpeliers – one a thriving and growing employment center, and the other a residential community with a dwindling population (7,495) and housing shortage. While the City, with its central location and many amenities, is viewed as a desirable place to live, it appears that a severe housing shortage is stifling its population growth in this urban center while the surrounding rural towns boom. Among the factors driving the shortage are rapidly escalating housing prices, extremely low vacancy rates, conversion of rental units to other uses, dwindling household size and reduced construction of new units. One factor that has not inhibited Montpelier's growth is infrastructural capacity. It's water, wastewater and school systems are capable of handling significant new development. While the City has received criticism in the past for a perceived antigrowth attitude, it does recognize both its obligation to provide housing and the land use (local and regional) and economic benefits of the same. Recent housing projects (both constructed and proposed) suggest that the City's population trend may be about to reverse itself. It is the City's desire that any new growth, residential or otherwise, reinforce the Montpelier's compact form and preserve its character and natural and cultural resources.

Results:

Despite the perception of Montpelier as a densely built community with little remaining development potential, GIS analysis revealed considerable remaining capacity. While about half the City is either already built or under some conservation restriction, there is potential for an additional 3,500 residential units under current zoning. However, development potential analysis revealed significant concentrations of highly developable (i.e., displaying minimal constraints) land in the City's Low Density Residential District

(which encourages “non-intensive or open space land uses.”) In addition, an analysis of the City’s older established neighborhoods shows that they are more densely developed than current regulations would allow. This has implications for both infill development and the development of new neighborhoods - at least those in areas serviceable by public water and sewer systems.

Considerations:

Both the City of Montpelier and CVRPC recognize that Montpelier has an important role to play in the Region – both as its largest employment center and as a home for those employed in the City and elsewhere. As mentioned earlier, Montpelier’s population loss does not seem to be a result of a lack of demand, land area or infrastructure for housing. Furthermore, CVRPC’s buildout exercise suggests that ample buildable land, much of it near of adjacent to the downtown core, exists in Montpelier. The lack of development in recent years suggests that either property owners do not have a strong desire to develop their properties or that they are encountering some difficulty in doing so. CVRPC has suggested several ways in which the City may begin to address its housing shortage and simultaneously protect the aesthetic character and resources so valued by its current residents. Among the recommendations are:

- ∞ Better define/identify important natural resources and develop protective overlay zones for those areas.
- ∞ Consider removing some potentially “overly restrictive” language from the municipal plan.
- ∞ Consider increasing allowable densities to reflect those of existing neighborhoods
- ∞ Consider requiring PUD design (as recently enabled by Vermont statute) in the City’s Low Density Residential Zone. *(Note: Subsequent to CVRPC’s study the City tried and failed to enact such a measure)*

CVRPC’s GIS analysis of Montpelier did not include a commercial buildout. In light of the City’s enormous employment growth and the high development potential of the Office Park Zone (as revealed in CVRPC’s analysis), this may be a worthwhile exercise in the future.

Duxbury:

Overview:

Duxbury is a rural community of 1300 people located along the Winooski River and near the spine of the Green Mountains in the vicinity of Exit 10 of I-89. Duxbury is a rapidly growing bedroom community, projected to have the Region’s highest growth rate through 2020. It is witnessing changes in its commuting patterns and increasing housing costs, apparently due to pressures and influences from the greater Burlington market. Both the Town Plan and the zoning regulations reveal concerns about loss of rural character and

the pace of growth. The Plan goes so far as to include language discouraging “large developments” (i.e., subdivisions over five lots).

Results:

No buildout analysis was performed for Duxbury as property tax maps were not available at the time of study. A development potential analysis was conducted with the following results: Minimal Potential/Not Considered (includes State Forest) - 41%, Low Potential 22%, Moderate Potential 9%, High Potential 26%. Despite the Town’s image as topographically, or otherwise unsuitable for development, over 7,000 acres of High Potential Land exists. Furthermore, over two thirds of the Rural-Agricultural Zone (one acre minimum density) and over 50% of the Forest-Recreation zone fall within the High Potential category. On a density-only based calculation (i.e., ignoring lot configurations, frontages, development constraints, etc) 5,300 potential lots could be created in Duxbury under current zoning. According to the local Planning Commission, there is a particular demand for residential lots with views between 1,500 and 1,700 feet in elevation.

Considerations:

Current regulations do not appear to be achieving the Town’s land use goals, preserving rural character or enhancing Duxbury’s existing Village. CVRPC suggests the Town consider:

- ∞ Revising its Village zoning (currently one acre density with 70 foot setback and 35% building coverage requirements) to reflect existing Village design/density. The Town may wish to explore a connection to nearby infrastructure in Waterbury Village.
- ∞ Reconsider its policy on “large development” as it provides a disincentive for creative subdivisions, village scale development, and affordable housing
- ∞ Reconsider its goals for the “State Farm” property. This area, adjacent to the Village, may provide opportunities for higher density development that are thwarted by current zoning standards.

Duxbury has recently completed town-wide tax mapping. In response to this development CVRPC and the Town have discussed the possibility of doing some follow up buildout analyses. The Town is also in the process of amending its Plan language restricting “large development”.

Waterbury:

Overview:

Waterbury (population 5,154) is unique in the Region in that it is the only municipality experiencing considerable growth in both its residential and commercial sectors. As such, it functions both as a bedroom community and an employment center. This duality

is reflected in CVRPC's growth analysis, which includes both a residential and commercial buildout for the Town.

Waterbury is located only 26 miles from Burlington and is accessible via exit 10 off I-89. Accordingly, it has felt (and continues to feel) strong secondary growth impacts from Chittenden County. In fact, since 1990, Waterbury has experienced a 300% increase in the number of residents traveling outside Washington County to work. This has had a profound increase on housing costs, which are well above County and State averages. Public water and sewer infrastructure, with excess capacity, exists in and adjacent to Waterbury Village.

Municipal policy documents indicate that the Town is committed to preserving traditional settlement patterns while continuing to accommodate/encourage balanced growth. Waterbury is also concerned about its ability to provide varied and affordable housing opportunities.

Results:

Despite being already somewhat densely populated and having most of its undeveloped land area fall under the Conservation category (due to extensive State Forest lands), Waterbury does have considerable additional development capacity. However, this is counterbalanced by the fact that less than 4% of the Town is zoned for a density of 2 acres or less and less than 2% is so zoned and developable. In addition, according to GIS sampling, existing building densities in both of the Town's village areas are well in excess of what is allowable under current zoning. In spite of these restrictions, even under existing regulations, Waterbury could accommodate 2,200 residential units and up to 780,000 square feet of commercial/industrial development in areas allowing such uses.

Considerations

Waterbury has greater residential pressures, less available land and more restrictive zoning (in its rural areas) than most other towns in the Study. In addition the highest potential percentage of its existing and potential growth is occurring in its lowest density zoning districts. In order to achieve its goals regarding housing and settlement patterns, Waterbury should consider:

- ∞ Reexamining zoning densities in Village neighborhoods, and where appropriate, amending zoning to reflect current conditions.
- ∞ Creating incentives for more creative subdivision design.
- ∞ Exploring the feasibility/impacts of extending sewer and water services to Waterbury Center where lack of infrastructure is a limiting factor for intensive development
- ∞ Exploring options for creative residential development in the more rural sections of Town and commercial "nodes" along the Route 100 corridor.

East Montpelier:

Overview:

With moderate growth in its residential sector and more modest growth in employment, East Montpelier (population 2,700) is primarily a bedroom community for Montpelier and Barre. Agriculture is still a prevalent and viable land use here relative to many other towns in Central Vermont. Unlike the other communities in this study, East Montpelier does not have direct access to the Interstate Corridor.

According to East Montpelier's Town Plan, the Town would like to "preserve historic village settlement patterns and facilitate the development of identifies growth centers where more intensive residential and mixed development (might) occur." In response to this goal, the municipality and CVRPC undertook a limited development potential and buildout analysis as part of a study on the feasibility of providing community wastewater treatment in East Montpelier Village and the hamlet of North Montpelier/ This was done in the belief that some public wastewater infrastructure was necessary for appreciable new development to occur in these areas. The Town declined CVRPC's offer to conduct a town-wide buildout analysis.

Results:

CVRPC analyzed development potential and buildout capabilities for both villages under two separate scenarios. The first assumed that wastewater need would have to be provided on-site, while the second evaluated the villages under the assumption that an off-site solution/treatment could be implemented. As one might expect, the development/buildout potential of the study areas increases with a public, off site system solution, however this result is not dramatic – at least at similar zoning densities. For the purposes of this study, the Town reduced Village density from one acre to .75 acres/unit . (This was done based in part upon the fact that a GIS sampling of the Village revealed actual existing densities on the order of .5 acres/unit.) Under this scenario, East Montpelier Village demonstrated the potential for 183 residential units and 96,658 square feet of commercial development with off-site treatment. With on-site treatment, residential units were reduced by about 10% (to 165 units) while commercial space declined about 5% (to 92, 143 square feet). In North Montpelier, the on-site scenario actually resulted in higher numbers (20 units) than the off-site option (15units). This however, was more likely indicative of the idiosyncrasies of the GIS modeling than any genuine capability differences. While these results do not show significant density gains for proving off-site wastewater solutions, it should be noted that an off-site treatment would likely allow the Town to reduce minimum lot sizes more substantially. For example, had the GIS model considered one half acre zoning with an off-site solution, approximated buildout numbers would have been as follows:

East Montpelier Village Residential – 244 units (53% greater than at .75 acre density)
East Montpelier Village Commercial – 128,877 square feet (40% greater)

North Montpelier Residential – 20 units

Considerations:

Because of limited scope of the East Montpelier study, considerations offered/recommended for future growth are limited, but include:

- ∞ Pursue “Village Designation” for one or both village areas
- ∞ Continue to pursue the development of infrastructure as a means to increase the density and mix of uses in Village areas.

IV. Conclusions/Regional Summary:

For almost two years now, CVRPC has been working with seven municipalities along the I-89 Interstate corridor to investigate their growth potential through the development of GIS “buildout” models. We have used the maps and data generated by this effort to analyze each community’s ability to deal with the consequences of such growth under their current land use policies. Although we continue to work with some of the participating towns on issues raised by the buildouts, we are nearing the conclusion of Phase II of the study. We are currently working with the Agency of Transportation, the EPA and five other RPC’s in the northwestern part of Vermont to develop a scope of work for the last portion of the project – a sort of growth management “toolbox” to assist not only participating towns, but all Vermont municipalities, in preparing for their respective futures. Included among the proposed Phase III products are: technical improvements to the built out model to accommodate mixed-used development, the development of a user-friendly economic forecasting model, and the development of model regulations to promote more creative subdivision design. These products will be made available to all Central Vermont communities upon completion.

While CVRPC’s Buildout Study has revealed much about the individual towns and cities in Central Vermont, it has also uncovered some interesting findings affecting the wider Region. Among the noteworthy findings are:

- ∞ Parts of our Region have been and continue to be influenced by the growing Chittenden County “metropolis”. Compared to the rest of Central Vermont, municipalities in the study area displayed higher growth rates, incomes and housing costs and more dynamic commuting patterns. This effect dissipates as you move farther from Chittenden County.
- ∞ Land use policies and regulations don’t appear to be as influential as market forces in determining the amount and location of growth. Growth pressure are highest closest to Chittenden County, even where stringent regulations are in place.

- ∞ Significant development capacity exists in all study towns. Our study shows that approximately a quarter of the land in participating municipalities is highly suitable for development and that thousands of residential units could be built in each town under current regulations and land capabilities
- ∞ Most municipalities support “smart growth” principals but have not been able to put them into practice. In fact, most new development is occurring in low density zones.
- ∞ Lack of sewer and water infrastructure and marketable incentives for creative development are obstacles to smart growth in rural towns.
- ∞ Where infrastructure does exist, capacity is ample, but underutilized. Furthermore, village/downtown “density sampling” revealed that allowable zoning densities in such areas are often considerably less than that displayed by existing neighborhoods.

The experience gained from this study has enabled CVRPC to refine buildout and analysis process. We are currently working with several of our member towns on projects modeled after the ones presented here. Eventually, CVRPC hopes to have completed some version of a buildout study for most, if not all, of our member towns and cities. The benefits of such a comprehensive analysis would not only provide valuable planning tools to local officials, but would inform the regional planning process, as well. It will no doubt prove extremely valuable in dealing with an array of issues including housing, infrastructure, transportation, economic development and resource protection. It is therefore our intent to include and promote buildout studies based on the Northwest Project Model in the next iteration of the Central Vermont Regional Plan (2008).

