CCRPC Long Range Planning Committee

AGENDA

WIFI Info: Network = CCRPC-Guest; Password = ccrpc$guest

DATE: Thursday, October 12, 2017
TIME: 8:30am to 10:00am
PLACE: CCRPC Office, 110 West Canal Street, Suite 202, Winooski, VT.

1. Welcome – 5 minutes

2. Approval of September 14, 2017 Minutes* (Action) – 5 minutes

3. Comprehensive Economic Development Strategy* (Information) – 30 minutes
   Staff has updated the content of the CEDS based on the new organization and required content. Following
   LRPC review we will present this to the Board on October 18th and send it to the municipalities for review.

4. Transportation Plan Update - Scenarios* (Information) – 30 minutes
   Staff will present the scenario results for Scenarios A (vehicle capacity) and D (land use). Tables and maps
   are included in this packet.

5. Review Energy Summary* (Information) – 10 minutes
   Energy will be the first topic that we ‘launch’ for public outreach and feedback. Staff has summarized the
   energy planning work into a concise document that we’ll use to garner feedback.

6. Other Business as Needed (Discussion) – 5 minutes

7. Next Meeting
   Thursday, November 9, 2017 from 8:30am to 10:00am

8. Adjourn

*=attached to agenda in the meeting packet

In accordance with provisions of the Americans with Disabilities Act (ADA) of 1990, the CCRPC will ensure public meeting
sites are accessible to all people. Requests for free interpretive or translation services, assistive devices, or other
requested accommodations, should be made to Emma Vaughn, CCRPC Title VI Coordinator, at 802-846-4490 ext *21 or
evaughn@ccrpcvt.org, no later than 3 business days prior to the meeting for which services are requested.
1. Welcome and Introductions
Jim Donovan called the meeting to order at 8:36 a.m.

2. Approve Minutes
Jim Donovan made a motion, seconded by Ken Belliveau, to approve the minutes of July 13, 2017. MOTION PASSED. Edmund Booth abstained.

3. Outreach Strategy
Regina Mahony provided a quick overview of the outreach strategy for the next few months. Regina Mahony explained that we’ll be trying to get feedback on the three big topics (energy, transportation and economy) of the ECOS update over the next few months. Including meeting with the staff to discuss the MTP project list and CEDS project list. We’ll be meeting with the Managers, Planners and Public Works staff to review these lists and then will meet with Selectboards as well. We know you’ll be starting budget conversations soon and we are doing our best to get these started as soon as possible. The LRPC suggested that Staff provide them and the Board with front porch forum outreach posts so they can post directly. Also do a press release for the community newspaper.

Heather Danis found a helpful approach in the Essex Health Impact Assessment work was to present one page of recommendations with community representatives (like focus groups - students, teachers, etc). Worked well because didn’t have to read the whole thing. There was a suggestion to present the information in this format: “Here is the impact this would be if this plan were to go into effect.”

4. Energy Policies
Melanie Needle provided an overview of the energy policy draft language. Questions/comments included:

- Members indicated that they like the basic concept, including that the constraint policies are for all development, not just energy.
- Comment regarding repeat text in Strategy 3 & 4 and adding too much text when the original intent of this plan was to keep it brief and to the point.
- Discussion around the 1,000’ limit to existing infrastructure, and whether it is needed or not. There was a suggestion to map all existing solar projects to show where these are happening. Three phase power isn’t necessarily a sprawl vehicle because you can have subdivisions without it. If we limit to existing 3 phase power we are eliminating a lot of area. And would it feel like there are too many within the 1,000”? Jim still thinks it’s important to include because its advisory, and not a requirement. We will definitely still need to look at the targets with this in mind. While there was no consensus, ultimately the distance stayed in because of the framework of this entire section. The suitability statements are advisory, and the more you can meet the better, but you don’t have to meet any of them. If you can limit the expansion of infrastructure, why not?
We will circle back with the municipalities on the constraints in early October. Emily Nosse-Leirer went over the methodology for the known and possible constraints. Comments included:

- Avoid “all” or “any” unless absolutely true and needed. Just say “development” or “very limited development” because footpaths can probably still happen.
- Reference to “capital” should be “capita”.

5. Transportation Plan Update

Eleni Churchill explained the difference between the previous maps and the maps in this packet. These maps should better reflect the amount of congestion that a driver actually experiences. We know the interstate has issues now. The LRPC also looked at the 2050 delay map with TIP projects. It has no improvements beyond the 2025 TIP projects. This is essentially the “no build” beyond TIP for scenario A. Our next steps is to add the crash history to this map, and choose MTP projects from the list that will address these issues that appear.

Scenario A won’t shift any modes. Other scenarios include: bike/ped/transit mode shifts; a technology scenario; and land use scenarios.

Comments/questions:

- Need to clean up the purple blip at the hospital. The red makes sense, but not the purple.
- We are doing the information a dis-service by showing different maps with slightly different terms that no one understands. We need to show one map, that explains it all: capacity, delay and safety all on one “transportation issues” map for the public to see. Also consider putting the technical maps in an appendix. But it is important to explain to the public that adding lanes isn’t going to solve the issue.
- Do we have artificial capacity in road segments only because of the intersections? In other words if we were to “open the dams” at the intersections what would that do to the segments? Do we show linear congestion only, but the intersections are causing the problems?
- Have we done any work to try to quantify the shifting of goods to package delivery v. bricks and mortar retail. Much more growth in freight, capacity trucks. We will consider some of this in the technology scenario because we are likely to see more of the freight capacity go to autonomous vehicles first. We are also going to look at the impact of the Quebec Autoroute 15. They are predicting that they are going to have that done in 10 years (all the way to the border) and we are likely going to see many more trucks on our highways.
- Would be interesting to see the 2025 maps to see what the TIP improvements do. We have these maps and can make them available.
- What is driving the VMT per Capita going up so significantly? Doesn’t make any sense between 2025 and 2050? Staff will look into that.
- The transit, walking & biking mode split – it isn’t a very big difference and it is only likely a result of population growth. Also the title is confusing as folks expect to see these broken out individually. If we keep them grouped together, it should be titled “non-SUV” or something like that.
- Suggestion to add the basic population numbers for 2015, 2025 and 2050 so we can see what those are in comparison to the transportation metrics.
- The Silver Street congestion issue in Hinesburg in the mornings seems to be improved since the extra lane was added at Exit 14.
- Titles on the maps – for reports titles are better at the bottom. But for a presentation the title is better at the top. We should be consistent for all the maps in the plan – they should be at the bottom, with a more minor title at the top.

6. Next Meeting

The next meeting will be on October 12, 2017 from 8:30am to 10:00am.

10. Adjourn

The meeting adjourned at 10:01 a.m. Respectfully submitted, Regina Mahony
4.2 Comprehensive Economic Development Strategy (CEDS) – DRAFT 10/5/2017

SUMMARY BACKGROUND

Over the past several decades, Chittenden County has enjoyed a competitive advantage relative to the balance of the state. The County’s share of population, Gross Domestic Product, jobs and income, among other economic indicators, has increased since 2010. Data points in this CEDS, drawn from the Vermont Department of Labor, the US Census, the Vermont Department of Health and other sources, are used to update the findings of the 2012 Economic Base and Competitive Assessment reports.

Despite the advantages the region has enjoyed in many areas, however, there are some disquieting trends that need to be acknowledged. Although job growth has largely recovered from the Great Recession, recent trends show a continuation of higher job growth in lower-wage industries and less job growth in higher-wage industries. While the Chittenden County region has a highly desirable quality of life by many measures, population is projected to grow only 0.4% per year. However, our challenge remains how to promote, manage and shape growth to improve our job opportunities and incomes while also improving our quality of life.

Understanding Economic Development

- Economic development is about building a community’s capacity for shared and sustainable improvements in the economic well-being of residents.
- Economic development is about access to good jobs that can support an adequate standard of living for all residents of a region or community. Economic development is also about continuous and sustainable improvements in the internal functioning of the economy, where its structural underpinnings are made stronger without sacrificing long-term quality of life.
- Economic development provides the means and the continuous process to strengthen the foundation of our communities, and to make them more resilient and able to withstand shocks.

We need economic development:

- To constantly renew and strengthen the “living economy.”
- To address on-going infrastructure needs of key dollar-importing regional businesses.
- To supply the financial resources in order to create and sustain healthy communities.
The Circle of Prosperity
When a state has and maintains a talented workforce it attracts a diverse industrial base of dollar importing businesses that create high wage jobs. From the economic drivers dollars flow into the private sector to provide taxes, public revenues, capital, resources, and employment opportunities. These private sector actions fund the public sector’s operations through taxes and governmental fees of which both the public and private sectors invest in creating and maintaining a clean environment, good schools, access to higher education and housing, and enhances the state’s quality of life, thereby creating healthy communities. The “Circle of Prosperity” illustrates this interrelationship. First articulated in Vermont back in 1997 by the Vermont Business Roundtable, the “Circle of Prosperity” emphasizes the fact that economic development and healthy communities are a system, involving the collective and sometimes coordinated actions of many individuals, businesses, and institutions.¹

Key Issues/Trends/Insights
NOTE: This section is a combination of updated information originally included in Chapter 2 and 3 of the 2013 ECOS Plan and information from the CEDS chapter of the 2013 ECOS Plan.

SWOT ANALYSIS

This section analyzes the Region's strengths, weaknesses, opportunities and threats (SWOT). The issues below have been identified by regional work throughout the last 5-10 years, including initiatives such as the Building Homes Together campaign, work on the Vermont Clean Water Act, research for other plans and the analysis reports completed for the 2013 CEDS. Findings from these background documents were updated with the most recent data and findings. Supporting data on each issue and related actions are included elsewhere in this chapter. It should be noted that one issue can have positive and negative implications for the region, and therefore may be listed multiple times in the SWOT analysis. For example, Vermont’s Clean Water Act creates new regulations that will increase costs for municipalities and developers, but the increased funding dedicated to these issues will also create jobs and clean up the lake – an invaluable economic resource.
**Strengths:** A region’s relative competitive advantages (e.g. industry supply chains and clusters, extensive port, rail and broadband assets, specialized workforce skills, higher education levels, collaboration among stakeholders) often internal in nature.

- High concentration of a young and educated population
- Diversified base economic sectors in comparison to the rest of Vermont
- High labor quality
- High concentration of well-regarded institutions such as the University of Vermont, Champlain College and St. Michael’s College.
- **High quality vocational and technical education programs** [seeking more details from GBIC]
- More diverse population than the rest of Vermont
- High quality airport
- University of Vermont Medical Center
- High quality of public K-12 education
- Vermont and Burlington “brand”
- Strong creative economy
- Access to high quality infrastructure - natural gas (though non-renewable), interstate, high speed broadband?
- Concentration of high net worth individuals
- Access to recreational, entertainment, and cultural opportunities
- Highly networked non-profit and service provider sector

**Weaknesses:** A region’s relative competitive disadvantages (e.g. a risk-averse or change-resistance regional culture), often internal in nature.

- Rising income inequality
- Labor constraints and skill shortages
- Uneven quality of public K-12 schools throughout the county
- Lack of connection between educational outcomes and employer needs
- Lack of career fairs and career planning
- Lack of affordable child care
- Housing affordability
- Limited developable site inventory
- Lack of racial and ethnic diversity compared to the rest of the US
- Land transportation and commuter mass transit infrastructure
- Wages not keeping pace with high cost of living
- Slow population growth
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<tr>
<th>Opportunities: Chances or occasions for regional improvement or progress (e.g. expansion of a biosciences research lab in the region), often external in nature.</th>
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<td>• Increasing involvement of University of Vermont, Champlain College, and St. Michaels in economic development</td>
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<td>• Nurturing entrepreneurial environment and support systems</td>
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<td>• Improving structured employer engagement in K-16 education curricula and State training programs</td>
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<td>• Coordinating and increasing efficacy and efficiency of state and local permitting processes</td>
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<tr>
<td>• Creating more dynamic economic development programs and services</td>
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<td>• Increasing policy focus and investment in renewable energy and clean water</td>
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<td>• Improving parking management in downtown Burlington</td>
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<td>• Promoting telecommuting and remote workforce based upon our regional assets to</td>
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<td>• Expanding access to career, vocational and technical education in K-12 and to adult Vermonters</td>
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<td>• Engaging a highly skilled and trainable retirement age population</td>
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<td>• Engaging and supporting a growing New American population</td>
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<th>Threats: Chances or occasions for negative impacts on the region or regional decline (e.g. several companies in the region considering moving out of state), often external in nature.</th>
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<td>• Permitting costs, redundancies, delays, and appeals in the construction process</td>
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<td>• Cost of complying with the Lake Champlain Total Maximum Daily Load for phosphorus</td>
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<td>• Declining workforce participation</td>
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<td>• Increasing rate of population aging and increase in needed services</td>
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<td>• Declining K-12 population</td>
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<td>• Labor/skills needs negatively impacting employers’ growth, investment, and location decisions</td>
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<td>• Aging transportation, water and wastewater infrastructure and limited maintenance funds</td>
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<td>• Rising rates of chronic disease and dangerous behaviors, such as addiction, substance abuse, mental health, and obesity,</td>
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<tr>
<td>• Increasing population of economically disconnected Vermonters [following up with GBIC]</td>
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<td>• Lack of rental and owner-occupied housing that is affordable</td>
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**Economic Base Analysis**

This sub-section provides an analysis of the current economic base of Chittenden County and the trends that have been shaping the County’s economy up to this point in time. It considers those aspects of a regional economy most typically included in the preparation of a Comprehensive Economic Development Strategy (CEDS) or similar economic development strategic plans.

Though some indicators have declined over the last five years, Chittenden County remains the largest player in Vermont’s economy. Over the past several decades the County’s share of population, GDP, jobs and income, among other factors, has increased. However, concerns remain, including a movement of jobs towards lower-paying sectors and slowing population growth. Overall, the statistics in this section paint a picture of a strong economy, but one that is not without concerns. Chittenden County is a mix of urban, suburban and rural areas, with a rural character that is important to many residents. The economy includes the largest for-profit employer in the state (the major Global Foundries complex) and significant agricultural, recreational and open space areas. This mix of uses results in a character cherished by its residents and appealing to prospective residents. The challenge is to plan and manage future growth, including economic development, so that it sustains and enhances this community character.

- Chittenden County contains 26 percent of the State’s population
- Median household income is $67,997 versus $56,990 for the State
- Between 2010 and 2015, the State’s population grew .01%, while Chittenden County’s population grew 3%.
- Chittenden County is home to 27 percent of the State’s private businesses. Between 2010-2016, the number of private businesses increased by 3.7% in Vermont, and by 13.8% in Chittenden County.
- Accounted for 36% of total Vermont manufacturers’ shipments in 2012, down from 45 percent in 2007*
- Thirty percent of the State’s retail sales occurred in the County (2012)* and in 2016, the Department of Taxes reports show that five of the six highest retail sales tax collections occurred in Chittenden County (Williston – #1; Colchester – #2, South Burlington – #3; Burlington– #4; and Essex - #6).
- GDP per capita in 2015 was $53,759 in the Burlington-South Burlington Metropolitan Statistical Area, vs. $43,495 for the State
- Chittenden County provides 28.6% of sales tax revenue in Vermont in 2015 (a drop from 32% in 2012)
- Chittenden County provides 36% of state income tax revenues in 2015 (an increase from 35% in 2012)
- After declining from 2000-2010, employment in the private sector increased by 9.5% between 2010 and 2016. Public sector employment grew more slowly during the same time period (6.2%).

* Data from the 2012 Economic Census. The 2017 Economic Census is underway, and data will become available in 2019.
The largest employers in Chittenden County are the University of Vermont Medical Center and the University of Vermont. While there has been concern in the past that having these institutions as such large employers rather than private sector businesses is a problem, these institutions are an advantage to Chittenden County, and the economy is not overly reliant on them. Both are net dollar importers and are highly stable.

The annual rate of population growth in both Chittenden County as well as the State has slowed over the past several years. While regional population growth (3% increase from 2010-2015) is still stronger than statewide growth (.01% increase from 2010-2015), it is lower than the national growth rate (4%). Though the region still has a population growth advantage compared to the state, it does not when compared to the rest of the country.

Chittenden County has the highest percentage of New Americans in the state, and the percentage is growing—1/3 of all new county residents in the last decade were born outside of the US. This group makes up 6.1% of the county’s spending power and is strongly represented in key sectors like manufacturing and health care.

Services-providing industries have become a larger portion of the economy since 2010. In 2010, private goods-producing industries were 19.7% of the economy, and private services-providing industries were 65.9% of the economy. In 2015, the industries made up 15.2% and 69.3% of the economy respectively.

The growth in the MSA’s gross domestic product over the past five years has come entirely from the services sectors. The MSA’s GDP increased 5.4% from 2010-2015; the GDP of private goods producing industries dropped 18.6% while the GDP of private services-providing industries increased by 10.9%.

The number of Chittenden County jobs in high-wage industries has declined by more than 5,000 since the year 2000; much of this has been from cutbacks at IBM (now Global Foundries). Employment in mid-wage and low-wage industries has increased slightly. The loss of jobs in high wage industries is not unique to this region—it is part of a larger trend that has been seen nationwide.

The construction industry has recovered since the recession, and the numbers of newly permitted projects, both housing and commercial/industrial, have reached pre-recession levels.

Growth in total nominal wages has risen off its sharp decline in 2009, and average wages were 11.4% higher in 2016 than they were in 2010. However, manufacturing, one of the sectors with the highest average wages in Chittenden County, has seen wages decrease by 2% since 2009.

After decreasing from 2008-2010, the number of private businesses in Chittenden increased by 820 establishments from 2010-2016.

Since 2010, the retail sector has expanded. GDP per capita in the retail sector increased 3.8% between 2010 and 2016. However, over that same time period, employment in retail sectors decreased by 0.9%.

Global Foundries (formerly IBM) remains a strong part of the economy. The information technology and analytical instruments cluster remains the most important element of traded sector employment (those industries that sell their products and
services outside the region and bring new money back in, thus supporting the local, or non-traded, industries). Durable goods manufacturing, which includes electronics manufacturing, remains 7% of the region’s GDP.

- However, following the loss of more than 4,000 jobs at Global Foundries (formerly IBM) over the past decade, the long-term security of these jobs may be in question.

**Household Financial Security** [Data in this section drawn from Housing Analysis Report]

Despite the strength of Chittenden County’s economy, many households face financial struggles. The County poverty rate is 11.4 percent for individuals and 11.9 percent for children, compared to 11.5 percent for individuals and 15.1% for children statewide.

- Vermont’s Basic Needs Budget determines the hourly rate a worker would need to make to pay for their “basic needs,” ranging from food and housing to childcare and insurance. This rate is known as the “livable wage,” and it is calculated differently depending on household size/makeup and rural or urban location. For full time workers, the Vermont minimum wage is only 74% of the average living wage. However, this varies significantly by household composition and location. For example, the Vermont minimum wage is only 43% of the living wage for two working parents with two children in an urban area, and only 25% of the living wage for a single parent with two children in an urban area.
- Although this plan celebrates Chittenden County’s high income and education levels, income inequality increased in Chittenden County between 2010-2015. This follows a national trend that has been occurring since the 1980’s. While Vermont and Chittenden County have significantly lower levels of income inequality than the country as a whole, this trend is still concerning.
- Lower income Vermonters report higher rates of depression and chronic conditions, such as obesity, asthma, heart disease, stroke and diabetes [seeking more data from the Department of Health].
- Lack of financial resources can also cause food insecurity. For example, in Chittenden County, 29% of students are eligible for free or reduced priced school meals. Food insecurity is also linked to obesity, as “unhealthy,” high calorie foods tend to be cheaper in terms of “calories per dollar” compared to “healthy” food like fresh produce.
- The County’s ability to grow its economy in the future will be closely tied to its ability to provide available labor. A broad-based strategy of skills upgrading, new methods of recruiting and alternative working arrangements will be necessary.
- More focus is needed on education and workforce development to train employees for the opportunities in the technologies needed for manufacturing, professional services and health care. See more under the “Education” topic.
- For a more detailed discussion of housing costs in Chittenden County, please see Section 2.5.2.

**Working Lands & Land Based Industries** [Data for this section drawn from Natural Systems Analysis Report; Farm to Plate Annual Reporting; Informing Land Use Planning and Forestland Conservation Through Subdivision and Parcelization Trend Information – Vermont Natural Resources Council, September 2010; The Action Plan of the VT Working Landscape Partnership.]
▪ Working lands and resource extraction industries are critical components of a self-reliant and diverse economy, making a region less vulnerable to market crises. Local food and fuel production is preferred since the transportation to import these products consumes tremendous amounts of energy and generates pollution. In addition, when food is imported from far-away places, nutrient value is reduced during the transport time.

▪ Working lands and resource extraction industries are economically viable within the constraints of our natural landscape. Sustainably managed farmland and forest land means less developed land, fewer impervious surfaces, and thus a greater presence of the natural ecosystem’s features and functions. Conversely, high quality food and productive forests are dependent upon clean water and clean, nutrient-rich soils. It is imperative that we maintain high quality water and soils for healthy and viable food and forest product industries.

▪ A major challenge to forest and farm businesses is the value of the land in these industries versus the value of the land for development. Often when these industries are no longer economically viable, the land is sold and developed, resulting in forest fragmentation and increased parceling of land. The number of parcels has gone up, while their size has gone down, diminishing their economic viability and the ecological services they provide. This situation has far-reaching potential consequences for the future of Vermont’s local economies, including tourism.

▪ Markets for forest products are necessary to ensure that landowners can afford to hold and manage their forest land.

▪ In recent decades, farm enterprises in the County have been employing new forms of business ownership, engaging in non-farm employment, limiting the size of farm operations to control the growth of farm production expenses, producing different types of farm products, producing more farm-related products, and engaging in more direct sales to consumers.

▪ Renewable energy generation, especially solar panels and biodigesters, provide opportunities for farmers to bring in extra income by producing electricity. Both net metering (using the energy produced on-site) and leasing the land to a developer may be valuable economic opportunities. For more information on CCRPC’s goals for renewable energy generation and facility siting policies, see Strategy 3.2.2.

Despite the advantages the region has enjoyed in many areas, there are some disquieting trends that need to be acknowledged. Jobs in goods-producing sectors are dropping in economic output in comparison to service-providing sectors in the region. The rate of population growth has declined and that is likely to continue into the future, and the workforce continues to age. Though unemployment is currently very low, workforce participation is also decreasing. This may mean that businesses will struggle to grow due to a lack of skilled workers. These and other problems are exceedingly difficult to address on a local level, but this does not mean that one should throw up one’s arms in despair. Local efforts, coupled with action by state and federal elected and appointed officials, can mitigate some of these disadvantages.

It is unlikely that these issues can be successfully addressed solely at the local level, since many of the policies affecting these changes emanate at the state or federal level. Local planning is necessary, but not nearly sufficient, given the magnitude of ongoing changes. While reversing these trends is unlikely, awareness of them can facilitate local planning and action.
Competitive Assessment

This sub-section provides an assessment of the competitiveness of Chittenden County, Vermont as an economic development product. In the economic development marketplace, the product being sold is usually a place, and the characteristics of that place determine its competitiveness. In this instance, the place being assessed is Chittenden County, Vermont and its constituent communities, in particular, the central City of Burlington. Chittenden County is comprised of many communities that have varying degrees of interest in differing forms of economic development. Taken as a whole, this provides the basis for a diverse and sustainable economy and quality place in the future.

In reviewing the findings presented in the Competitive Assessment report ([http://ecosproject.com/analysis](http://ecosproject.com/analysis)), the following highlights were noted. Statistics and conclusions are from the Competitive Assessment report unless otherwise noted.

- Chittenden County is a mix of urban, suburban and rural areas, with an essential rural character that polling has consistently shown is important to many residents. Protection of this character must be reflected in economic development efforts if public sector economic development efforts are to be broadly supported.
- The County has a high quality of life, making it attractive to businesses and workers. The notable exception is the affordability of housing, which was rated the lowest quality of life factor in the 2012 Employers Survey. Recent focus groups conducted during the Building Homes Together Campaign show that this issue persists as the most commonly observed weakness of the area in interviews of employers. While there are many reasons an employee in Chittenden County may choose to live outside the region, it is important to increase quality housing stock available to all income levels, to increase quality of life for current residents and to attract those who wish to live near their jobs.
- Based upon the results of the Employers Survey, recreational opportunities, safety from crime, and cultural opportunities all scored Very Good or higher, while the quality of the K – 12 educational system scored just below Very Good.
- Educational levels among residents 25 years old and older exceed state and national norms. However, 30% of employers report that they have training needs that are not met by local resources, and significant racial and income based achievement gaps remain (See Section 2.5 Education for more detail.)
- Roughly 40% of graduating high school seniors do not go on to further education (industry recognized credentials, certificates, or two and four-year degrees) once they leave school. This often means they have limited ability to engage in the workforce, and disproportionately suffer from negative social, economic, and health outcomes. [Working with GBIC to get more detail on these issues.]
- The County represents 26% of the state’s population, and is relatively young, with household incomes and educational attainment exceeding state and national norms.
- Between 2012 and 2016, Chittenden County’s employment base has remained concentrated within five private industry sectors: healthcare and social assistance; retail trade; manufacturing; accommodation and food service; and professional, scientific and technical services. However, the proportion of jobs in these sectors has dropped from 71% of total employment in the County in 2012 to 54% in 2016.
▪ The number of subsectors with high location quotients (goods production, construction, manufacturing, education and health services and other services) shows a diversified employment base that offers opportunities for continued economic diversification and a broad base on which the County’s economy can flourish.

▪ The County’s ability to grow its economy in the future will be closely tied to its ability to provide available skilled labor, particularly once the currently unemployed are absorbed back into the ranks of the employed as much as their skills will allow. A broad-based strategy of skills upgrading, training, new methods of recruiting and alternative working arrangements will be necessary. An integrated workforce delivery system plan will need to be considered and implemented.

▪ Unemployment in Chittenden County is low. In January 2016, unemployment in Chittenden County was 2.9%, compared to the US average of 4.9%. However, Vermont’s percentage of “underutilized” workers is 8.2%, much higher than the unemployment rate. Workers who are unemployed, involuntarily part time, or marginally attached fall into this category. Although Vermont’s rate of underutilized workers is lower than the national average (10% in 2015), many Vermonters are still searching for a job that fits their skills and economic needs.

▪ The best recruiting experiences reported by county employers are typically from workers in the Northeast, the upper Midwest and areas with similar climate and outdoor recreational opportunities, such as the Northwest and Colorado. Recruiting people from large technology centers such as Boston, Austin and California is difficult.

▪ Employers report very good to excellent workforce quality, with good work ethic and productivity, and low turnover and absenteeism.

▪ The County’s higher education infrastructure is excellent, although almost 30% of employers participating in the Employer Survey indicated that they have training needs that are not being met by local resources. While some of these needs are for skills that are unique to specific companies, several employers surveyed for this assessment reported similar training needs for skilled manufacturing occupations particularly in the machine trades. Interviewed manufacturers emphasized the strong need for local training programs in machining and other skilled occupations to support their growth and sustainability.

▪ With the notable exception of affordability of housing, most every kind of quality of life factor sought by most people is readily available in the County.

▪ The County’s perceived regulatory environment rates as less than Good (where Good = 3 on the five point scale used in the Employer Survey conducted as part of this assessment), with local property taxes and the local construction permitting process (regulations and procedures) both topics of complaint.

▪ As of 2016, most permitted industrial parks are approaching full build out, and consequently the supply of industrial land remains low. This will continue to inhibit industrial growth in the County.

▪ As of 2016, commercial land sales have increased since the recession and high sales activity is projected to continue. However, the market for office space is currently somewhat oversupplied, and construction will likely slow.

▪ Chittenden County is well-served with a highway network that facilitates multi-directional travel and roadway and related improvements are well planned. While the physical infrastructure of our transportation is adequate for future demand, strategic investments will
be needed in technology, such as coordinated signals, to improve the function of existing infrastructure. Over the next 35 years, the majority of transportation spending in the County will be on infrastructure maintenance. See the Metropolitan Transportation Plan for more details on the Region’s transportation infrastructure.

- The County is generally well-served with utilities and telecommunications services necessary to support economic development. The weakest part of the County’s utilities and telecommunications system is the quality and costs of telecommunications, in particular cell phone service in our rural areas. Though almost all Chittenden County households are served by broadband internet, faster internet is an important utility for many of the region’s key sectors, including those who work at home.

- Continued and increased attention must be paid to providing services to existing businesses and entrepreneurs in Chittenden County. Organizations such as the Vermont Center for Emerging Technologies, BTV Ignite and the South End Arts and Business Association are key to the region. Encouraging the creation and growth of small, “home-grown” businesses is key to diversifying the economy instead of relying solely on large employers like Global Foundries (formerly IBM) for all technology jobs.

- Three of the County’s public high schools have low performance indicators, and employer interviews indicate that the limited proficiency of students remains a concern as they move into the workforce. Equal education that meets or exceeds state standards, especially for financially disadvantaged students and those for whom English is not their primary language, is key to the economy.

- Funding the water quality projects necessitated by the Lake Champlain TMDL will present a challenge for Chittenden County municipalities by straining municipal budgets. Additionally, complying with increased stormwater management requirements will increase the cost of development.
Strategic Industry Sector Analysis
This sub-section provides a summary of the identification of target clusters and industry sectors that will likely be significant economic drivers for Chittenden County. The full Strategic Industry Sector Analysis report can be found at http://ecosproject.com/analysis. Based on the Economic Base Analysis and Competitive Assessment, the following 14 initial target clusters and industries for attraction and development efforts were identified and submitted to GBIC for consideration:

- Information Technology
- Value Added/Sustainable Agriculture
- Digital Media
- E-Commerce
- Clean Tech/Green Technology
- Tourism
- Retail
- Non-profit Organizations
- Health Care
- Business and Administrative Services
- Value-Added Manufacturing
- Higher Education
- Outdoor Recreation
- Food systems

From this initial selection, five primary targets, one of which is a combination of three of the initial recommendations, were selected as value-adding industries with high location quotients and are profiled in the Strategic Industry Sector Analysis report referenced above:

1. Information Technology, Communications, and Media
   - Information Technology
   - E-Commerce
   - Digital Media
2. High Value-Added Manufacturing
3. Higher Education
4. Clean Tech/Green Tech
5. Health Care and Wellness
ECONOMIC RESILIENCE

Economic resilience is an area’s ability to withstand, prevent, or quickly recover from major disruptions (i.e., ‘shocks’) to its underlying economic base, identify vulnerabilities and withstand or recover from disruptions. Depending on the character of the hazard, employees in certain industries, residents of certain areas or people with lower incomes or a more limited social safety net will be impacted more than others. Increasing economic resilience means that all Chittenden County residents, institutions and businesses will be better equipped to handle economic shocks.

As identified in the Weaknesses and Threats section of the SWOT analysis, Chittenden County faces a number of economic challenges. In addition, the Chittenden County Multi-Jurisdictional All Hazards Mitigation Plan\(^2\) identifies two hazards facing the county’s economy:

1. Economic Recession: While employment and property values have recovered strongly since the 2008 recession, Chittenden County could be affected by another national recession.
2. Major Employer Loss: The loss of a major employer, either through severe job cutbacks or outright closure, has the potential to dramatically increase unemployment and reduce property values due to out-migration of terminated employees or facilities closure.

To work towards greater resilience, and preparedness for the above hazards, the County CEDS is incorporated into the ECOS Plan as it requires more than traditional economic development activities alone. The State of Vermont CEDS states that any economic development activity that meets one or more of the following criteria increases economic resilience.

1. Embraces complexity  
2. Plans for change  
3. Expands opportunities  
4. Develops diverse relationships  
5. Designs for learning  
6. Builds local and regional self-reliance

The table below, organized by the above criteria, shows the different strategies and actions throughout the ECOS Plan that increase the region’s economic resilience. Continued implementation of these strategies and actions will help the County be resilient to the hazards identified above.

### A RESILIENT ECONOMY:

<table>
<thead>
<tr>
<th>THE ECOS PLAN’S STRATEGIES INCLUDE:</th>
<th>ACTIONS TO IMPLEMENT THESE STRATEGIES INCLUDE:</th>
</tr>
</thead>
</table>
| **Embraces complexity**
(Does it encourage flexibility, economic diversity, and awareness of uncertainty?)

- Improving and strengthening the economic systems of our region to increase opportunities for Vermont employers and employees (3.2.1) | 3.2.1.8: Economic Development Coordination - Work with the State of Vermont to implement the State CEDS
3.2.1.2: Identify and plan for new industrial site locations
3.2.1.5: Support creative economy efforts |

| **Plans for change**
(Does it reflect systems thinking and foresight? Does it consider multiple scales? Does it build adaptive capacities?)

- Directing growth in a way that benefits all sectors of the economy and enables economic diversity—trying to make development for homes, retail and industrial uses easier in the areas planned for their growth, and simultaneously decreasing the destruction of working lands (Strategies 3.2.1, 3.2.2 and 3.2.4). | 3.2.1.4: Innovation and Entrepreneurial Development - Create an economic system of resources that is easily navigable at all stages of the innovation and entrepreneurial continuum. |

| **Expands opportunities**
(Does it enrich human, social, cultural, economic, and ecological wellbeing? Does it build diverse and accessible forms of livelihood and local wealth?)

- Implementing strategies about education and equity, and seeking to improve the water quality of the region’s lakes, rivers and streams, and to increase investment in and reduce fragmentation of the working landscaping (3.2.3 and 3.2.4) | 3.2.4.2: Protect farmland and forestland and support existing and new operations
3.2.1.3: Workforce education and skills development - connect educational programs with the needs of the Vermont workforce |

| **Develops diverse relationships**
(Does it forge trusted partnerships and rich feedback loops amongst a flexible network of people and resources?)

- Partnering with health and social welfare groups to increase the health and safety of every community member (Strategy 3.2.5). | 3.2.5.7: Social Connectedness - Increase opportunities for residents to come together, interact and network
3.2.5.1: Basic Needs - Provide the basic needs of all people |
| Designs for learning (Does it facilitate continuous learning, adaptation, knowledge sharing, and innovation?) | Supporting educational efforts for all ages to ensure that children have equal opportunity for good educations, that teenagers are prepared for future careers, and that adults have the skills they need to thrive at work (Strategy 3.2.6). |
| Builds local and regional self-reliance (Does it empower communities?) | Making equity a focus of planning through government partnerships data analysis, project prioritization and public participation (Strategies 3.2.7 and 3.2.8). |
| 3.2.6.2: Elementary Readiness and Comprehensive Student Needs | 3.2.6.3: Student-centered, proficiency based, flexible pathways to graduate |
| 3.2.6.5: Career Awareness and Skill Alignment | 3.2.7.1: Community Development Finance Tools - Expand and improve implementation of financial tools available to municipalities |
| | 3.2.7.7: County coordination and alignment |
| | 3.2.7.8: Multi-jurisdictional services |
| | 3.2.8.3: Increase opportunities and remove barriers for civic engagement for all, including underrepresented populations |
4.2.3 STRATEGIC DIRECTION/ACTION PLAN

A Project List is no longer required, but one will be included. It will hopefully include identifying funding sources besides EDA grants. See the attached draft project list.

Goals

Broad Goal: Build the region’s capacity for shared and sustainable improvements in the economic wellbeing of the community through support of both local and globally competitive initiatives.

Economy Goal: Retain and support existing employers and job growth, grow target sector employers and entrepreneurs, and work to attract a greater diversity of employers and employees.

Household Financial Security Goal: Improve the financial security of households.

Working Lands Goal: Support the growth and vitality of working farms and managed forests; and sustainably manage sand and gravel extraction operations.

Strategies – [Note: These strategies are currently found in Chapter 3 of the ECOS Plan, most in Strategy 1. However, other issues are addressed in detail elsewhere in the ECOS Plan. If no edits are proposed, those actions are not included here. For example, actions related to housing affordability can be found in Section 3.2.2.3.]

1  IMPROVE AND STRENGTHEN THE ECONOMIC SYSTEMS OF OUR REGION TO INCREASE OPPORTUNITIES FOR VERMONT EMPLOYERS AND EMPLOYEES.

Economic development is about building a community’s capacity for shared and sustainable improvements in the economic well-being of residents. Providing access to good jobs that can support an adequate standard of living for all residents of a region or community; continuous and sustainable improvements in the internal functioning of the economy, where its structural underpinnings are made stronger without sacrificing long-term quality of life; and providing the means and the continuous processes to strengthen the foundation of our communities.

Actions

1. High wage employers – The primary goal of any economic development strategy is retaining and growing the already existing high wage jobs within the economy. The region should maintain economic diversity by deepening existing sectors, and increase diversity by identifying and supporting businesses in sectors with high location quotients (a higher concentration in the region compared to the country as a whole). Providing support and connecting available resources is critical to ensuring that this economic base remains vital and is able to grow. The high wage sectors in which Chittenden County expects to drive our economy are: Information Technology, Communications,
and Media (including Information Technology, E-Commerce, and Digital Media); High Value-Added Manufacturing; Higher Education; Clean Tech/Green Tech; and, Health Care and Wellness (see the Target Sector Analysis – will be located here www.ecosproject.com/analysis shortly).

a. Build relationships with these employers. For example, the Region's Tech Jam highlight some of the region's many successful tech companies. Success here connects to the action on innovation and entrepreneurial development and includes: developing and attracting a tech workforce, access to financing, marketing VT and the region as a home for tech jobs and tech companies, supportive infrastructure such as broadband access, incubator space, and networking.

b. Facilitate access to employment and infrastructure development resources made available by the State. Currently these include programs such as the Vermont Employment Growth Incentive, Vermont Training Program, etc.

c. Market the quality of life and the Vermont and Burlington “brand”—Chamber action

2. Industrial Site Locations – With only a few years supply of existing buildings or permitted sites left for high wage industrial or manufacturing businesses in the region, additional sites need to be identified and carefully planned to ensure a smooth permitting process to be ready for employers' needs for expansion or relocation in Chittenden County. The most likely employment sectors with this need are high wage, technology-based and other types of manufacturing. The best opportunities for these sites are on vacant portions of land owned by current major employers, within close proximity to - or already connected to - existing infrastructure services for long term efficiency.

a. CCRPC and GBIC will work with ACCD to have business/industrial parks recognized as benefit locations in state designation programs. (Funded by GBIC and CCRPC. No direct additional employment is expected, but this would help to create future opportunities.)

b. Efforts should be made by CCRPC to educate businesses and developers about “Smart Growth”—development practices that achieve a higher level of density, greater compatibility within traditional development patterns, use less land, and provide for all modes of transportation.

c. Prepare a “longevity analysis” to project when additional fully-serviced land should be added to the regional inventory (GBIC action).

3. Workforce Education and Skills Development – Promote public/private partnerships for education that connect the skills development infrastructure of our institutions of higher education, vocational programs, and technical schools with the direct needs of the Vermont workforce. If education takes place with connections to our economic needs, students and retrained workers will have their skill sets match with the employment market.

a. See Strategy 3.2.6 for more actions related to education.
b. Maintain, improve and market the assets that attract and retain young professionals, such as the “Vermont brand,” social and professional opportunities, and affordable and attractive housing.

c. Implement actions identified by the S.135 working group to assess current workforce education and training needs. (The working group’s report is due by November 15, 2017).

4. **Innovation and Entrepreneurial Development** – Coordinate and promote the providers, programs, and services already available in the State to create an economic system of resources that is easily navigable at all stages of the innovation and entrepreneurial continuum. This must aggregate and address services such as finding capital, mentorship, prototyping, commercialization, etc.
   a. Encourage home-based small businesses throughout the Region as allowed by municipal zoning, and ensure that sufficient telecommunications infrastructure, especially high-speed internet, is available to make these businesses possible.
   b. Research successful efforts to capitalize on the entrepreneurial spirit of recent immigrants and ensure that they are a cornerstone of economic development policy and actions, and incorporate strategies as appropriate.

5. **Creative Economy and the Arts** – Arts and the creative economy are what drives a large and diverse amount of economic activity in our region (e.g. local foods, design, technology, media, craftsmanship/fabrication, arts, emergent media, music, dance, festivals, education, and recreation). This portion of the economy is fundamentally unique in that it is a significant contributor to the culture in our region. Support creative economy and arts programs and efforts. Create collaborations between arts, culture and recreation groups and the Chamber of Commerce and local businesses to promote the use of local artists in regular business needs (i.e. advertising, branding, communications, etc.) and to share vacant or underutilized commercial spaces with artists for gallery and/or studio space.

6. **Working Lands** - Support value-added foods, farms and forest products through the work of Farm to Plate by Vermont Sustainable Jobs Fund and Working Lands Enterprise Board. See Strategy 4 for more details.

7. **Tourism** – Continue good efforts in tourism including VT Convention Bureau, Lake Champlain Regional Chamber of Commerce, and Lake Champlain Byway. Support the work of the Vermont Outdoor Recreation Economic Collaborative, a task force created by Governor Phil Scott in 2017, to strengthen and expand Vermont’s outdoor recreation economy.

8. **Economic Development Coordination** – Work with the State of Vermont to implement the 2014 Vermont Comprehensive Economic Development Strategy (Vermont 2020); and coordinate with Northwest Regional Planning Commission on their economic development efforts.
9. **Public Infrastructure** – Adequate funding for public infrastructure is necessary to maintain and expand existing systems. See the Metropolitan Transportation Plan for more details.

10. **Housing Affordability** – Rental and owner-occupied housing that is affordable is a key component of economic development. See Strategy 3.2.2.3 for more details.

11. **State/Local Permitting Coordination & Improvement** (Currently in the ECOS Plan as Action 3.2.2.5)

   a. Support changes to the local and state permitting process to make the two more coordinated and effective. Participate in the Commission on Act 250.

   b. Collaborate with stakeholders to ensure local and state regulations, bylaws and plans encourage transparency, predictability and timely review of sustainable and environmentally sound development applications.

   c. Develop a transportation assessment process that supports existing and planned land use densities and patterns in Center, Metro, Suburban, Village, and Enterprise Planning Areas to allow for more congestion and greater mode choice than allowed by current standards. The CCRPC will collaborate with the Vermont Agency of Transportation (VTrans), the Natural Resources Board, and other state and local stakeholders to develop a process that evaluates the transportation impact from a multi-modal perspective rather than just a traffic flow standpoint.

   d. Policies and planning studies that are adopted as part of this ECOS Plan and subsequent amendments will guide CCRPC’s position in permit proceedings
EVALUATION FRAMEWORK

The Key Indicators below are reported on the ECOS Scorecard: https://app.resultsscorecard.com/Scorecard/Embed/8502

Proposed New Indicators:

- Percent of employment and location quotient of target industry sectors in Chittenden County – Will add
- Economic Diversity – Will add
Figure 2. Change in Age Cohorts, 2005-2014

Current Indicators (From ECOS Scorecard Unless Otherwise Noted - https://app.resultsscorecard.com/Scorecard/Embed/8502)

Data Source: Vermont Department of Labor, Economic & Labor Market Information

Data Source: Vermont Department of Labor
**Unemployment Rate, Chittenden County**

Data Source: Vermont Department of Labor, Economic & Labor Market Information (Not Seasonally Adjusted)

![Unemployment Rate Graph](image)

**Percent of Adults (25+) with High School Degree or Higher in Chittenden County**

Data Source: American Community Survey, 1 year estimates (51501)

![High School Degree Graph](image)

**Percent of Adults (25+) with Bachelor's Degree or Higher in Chittenden County**

Data Source: American Community Survey, 1 year estimates

![Bachelor's Degree Graph](image)
CCRPC Long Range Planning Committee  
October 12, 2017  
Agenda Item 4: Information Item  

Metropolitan Transportation Plan (MTP) Update

Background:
Staff has started developing and running the various MTP transportation scenarios using the recently updated regional travel demand model. This packet includes results for Scenarios A and D. All scenarios are briefly described below. Please note that Scenarios A through D are narrowly focused on a specific issue/mode/strategy/future and that the MTP scenario will be a hybrid of these scenarios and will include multimodal projects/improvements and other strategies.

- **Scenario A:** Vehicle capacity scenario that focuses on roadway projects (see attached charts and maps of interchange analyses)
- **Scenario B:** Technology Intensive scenario that includes connected and autonomous vehicles by 2050.
- **Scenario C:** TDM scenario that includes a robust increase of transit and bike/pedestrian facilities and travel.
- **Scenario D:** The two land use scenarios included in this packet are: D1 – 90% of the household (HH) growth is allocated to TAZs that correspond to the center and village planning areas for all towns; and D3 – 10% increase in overall HHs in Chittenden County. Additional growth is allocated proportionally to TAZs so that roughly 95% of HH growth falls within our areas planned for growth as specified in the ECOS Plan. (see attached charts)
- **MTP Scenario:** Hybrid scenario which combines multimodal projects and other strategies from Scenarios A through D.

Please note that the 2050 HH and population forecasts for Chittenden County, approved by the CCRPC Board in the spring of 2017, are 79,151 and 183,172 respectively.

**Staff contact:** Peter Keating, pkeating@ccrpcvt.org  
Jason Charest, jcharest@ccrpcvt.org

Source: Historical data, U.S. Dept. of Commerce; Forecast, Approved 2050 Forecast, CCRPC

Chittenden County Historic Employment (1970-2015) & Approved 2050 Total Employment Forecast

Source: Historical data, U.S. Dept. of Commerce; Forecast, Approved 2050 Forecast, CCRPC
Chittenden County Historic Household (1970-2015) & Approved 2050 Household Forecast

Source: Historical data, U.S. Dept. of Commerce; Forecast, Approved 2050 Forecast, CCRPC

Chittenden County Daily Vehicle Miles Traveled (2000-2016)

Source: VTRANS Highway Performance Monitoring System
## Adjacent County Population Forecast and Estimation of Future Households

<table>
<thead>
<tr>
<th>County Name</th>
<th>2016</th>
<th>2046</th>
<th>Total Change (Persons)</th>
<th>Total Change in Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addison County</td>
<td>37,100</td>
<td>39,280</td>
<td>2,180</td>
<td>995</td>
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<tr>
<td>Franklin County</td>
<td>48,873</td>
<td>51,447</td>
<td>2,574</td>
<td>1,175</td>
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<tr>
<td>Grand Isle County</td>
<td>6,870</td>
<td>7,215</td>
<td>345</td>
<td>158</td>
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<tr>
<td>Lamoille County</td>
<td>25,267</td>
<td>26,516</td>
<td>1,249</td>
<td>570</td>
</tr>
<tr>
<td>Washington County</td>
<td>58,687</td>
<td>61,580</td>
<td>2,893</td>
<td>1,321</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>176,797</strong></td>
<td><strong>186,038</strong></td>
<td><strong>9,241</strong></td>
<td><strong>4,220</strong></td>
</tr>
</tbody>
</table>

Source: VTrans Demographic and Economic Trends & Forecast Report, CCRPC 2050 Household Approved Forecast, 2045 Household Size
Countywide Daily Vehicle Miles Traveled (VMT)

- 2015
- 2025 No Build
- 2025 w/TIP
- 2050 No Build
- 2050 w/TIP
- 2050 w/TIP & Exit 12B
- 2050 w/TIP & Full Exit 13
- 2050 w/TIP & Full Exit 15
- 2050 w/TIP & MTP Projects
- D1 (90%)
- D3 (10% Increase in HHs)

Miles: 4,000,000 to 5,600,000
Countywide Daily Average Length of Trip (time)
Countywide Daily Vehicle Hours Traveled (VHT)
2050 Peak Hours with TIP Projects
Congestion Levels (v/c ratio)

- Light Congestion (0.70 - 0.79)
- Moderate Congestion (0.80 - 0.89)
- Severe Congestion (0.90 - 1.00)
- Over Capacity (> 1.00)

Railroad

Figure X-X: 2050 AM & PM Peak Hour Congestion with TIP Projects
Figure X-X: 2050 AM & PM Peak Hour Congestion w/TIP Projects & Exit 12B

2050 AM & PM Peak Hours
Congestion Levels (v/c ratio)

- Light Congestion (0.70 - 0.79)
- Moderate Congestion (0.80 - 0.89)
- Severe Congestion (0.90 - 1.00)
- Over Capacity (> 1.00)

Map produced by J. Charest using ArcGIS.
Sources:
- State Plane Coordinate System NAD83.
- Major Roads and Railroad - VTrans
- 2050 v/c data exported from TransCad.
- Errors and omissions may exist. The Chittenden County Regional Planning Commission is not responsible for these. Questions of on-ground location can be resolved by site inspections and/or engineering studies. This map is not a replacement for surveyed information or engineering studies.
Figure X-X: 2050 AM & PM Peak Hour Congestion w/TIP Projects & Exit 13 Loop

2050 w/TIP Projects & Exit 13 Loop
Congestion Levels (v/c ratio)

- Light Congestion (0.70 - 0.79)
- Moderate Congestion (0.80 - 0.89)
- Severe Congestion (0.90 - 1.00)
- Over Capacity (> 1.00)
- Railroad

Map produced by J. Charest using ArcGIS, Town Boundary and Water Body - VCGI

Sources:
- International Railroad
- Burlington Airport
- Over Capacity (> 1.00)
- Town Boundary and Water Body - VCGI

Legend:
- The accuracy of information presented is determined by the operator. Errors and omissions may exist. The Chittenden County Regional Planning Commission is not responsible for errors. Separation of land use layers was not performed.
- This data is not suitable for the production of maps or plans on the ground. The map is designed for reference use only. It is not a replacement for surveyed information or engineering studies.

9/27/2011

Chittenden County RPC
Communities Planning Together
Figure X-X: 2050 AM & PM Peak Hour Congestion w/TIP Projects & Full Exit 15

2050 w/TIP Projects & Full Exit 15
Congestion Levels (v/c ratio)

- **Light Congestion**: 0.70 - 0.79
- **Moderate Congestion**: 0.80 - 0.89
- **Severe Congestion**: 0.90 - 1.00
- **Over Capacity**: > 1.00

Map notes:
- Errors and omissions may exist. The Chittenden County Regional Planning Commission is not responsible for these. Questions of on-ground location can be resolved by site inspections and/or surveys by registered surveyor. This map is not sufficient for planning purposes and is not a replacement for surveyed information or engineering studies.
Figure X-X: 2050 AM & PM Peak Hour Congestion with all MTP Projects
Energy Updates to the ECOS Plan

The Chittenden County Regional Planning Commission is updating the ECOS Plan to identify actions for reducing energy consumption and reliance on fossil fuels for all sectors of energy (heating, electricity, and transportation). Doing this planning for the region will align us with the State’s energy goals and means the ECOS Plan will have a larger role in the permitting of renewable energy projects.

Enhancements to the ECOS Plan include:

- Strategies for using 1/3 less energy:
  - Planning for a majority of new growth to be in compact areas to reduce travel distances, provide for more energy efficient buildings, and encourage walking, biking, and transit use. **Graphic: The simplified planning area map that we’ve used in the annual report the last few years (we use it for the 80% growth strategy).**
  - Collaborating with utilities to reduce energy use through weatherization of homes and businesses and installing more efficient appliances. **Graphic: an insulated home graphic and the amount of homes we need to weatherize to meet the target (compared to our total number of HH in 2050)?**

- Strategies for switching energy use away from non-renewable fuels
  - Promotion of electric vehicles to transform the transportation sector to be powered by electricity. **Graphic: how many do we have now, and the target.**
  - Collaborating with partners to reduce fossil fuel use in the heating sector through installation of heat pumps and increased biomass heating.

- Strategies for getting 90% of energy from renewable sources:
  - Estimating how much additional renewable energy the region needs to generate **Graphic: amount of renewable energy we produce now, and the target. Also include a link to the energy dashboard so people can see where the current projects are?**
  - Guidelines for encouraging appropriate placement for all scales of renewable energy projects (such as solar, wind, biodigesters, etc.) and defining constraints for protecting our natural, scenic, and cultural resources in the region. **Graphic: a simplified constraints map (total no go areas, and proceed with caution areas) or the resource potential maps, or the two combined?**
- Visualizations of renewable energy generation potential and data analysis of current and future energy demand to demonstrate how use and generation of energy will be transformed for all sectors. Graphic: any other data point we want to highlight? Or perhaps we just include a direct link to the appendix here?

To read the ECOS Plan click here