



Steering Committee Meeting

July 25, 2012, 8:00 am – 10:00 am

Vermont Energy Investment Corporation, 128 Lakeside Ave (Innovation Center Bldg), Burlington

(Take a right into 128 Lakeside Ave. Proceed straight to the large parking lot on the north side of the building. Please do not park in the lot closest to the building. Enter through the main door and take the elevator to the 4th floor.)

AGENDA

- 7:45 Breakfast and Networking
- 8:00 Call to Order & Introductions
- 8:10 Quick Review of Project Status & Documenting Efforts
- 8:15 Approval of April 25, 2012 Meeting Summary – *ACTION* (attached)
- 8:20 Review Draft ECOS Implementation Grant Application – *ACTION* (attached)
 - a. Co-chairs appoint ECOS Implementation Grant Review Committee
- 8:45 Affordable Housing assistance offered to municipalities
- 8:50 Review Draft ECOS Plan (attached)
- 9:20 Public Engagement
 - a. Champlain Valley Fair
 - i. Describe Exhibit
 - ii. Sign-up to Volunteer
- 9:40 Next Steps/Engagement Efforts
 - a. Soon – Look for official release of ECOS Implementation Grant RFP
 - b. Participate in Sub-committee meetings in August and September
 - c. September 21st – ECOS Grant Proposals Due
 - d. August 25th to September 3rd – Volunteer at the Champlain Valley Fair
 - e. September 19th & 20th – CCRPC Annual Planning Conference
 - f. October meeting -
 - Endorse ECOS funding allocation and make grant announcements.
 - Review and recommend 1st Draft ECOS Plan to CCRPC and GBIC.
 - MOU agreements for Collective Impact Strategies and Indicator Report
- 10:00 Adjournment - **Next Meeting: October 24, 2012 from 8am to 10am**

PLEASE NOTE: For carpooling/ridesharing opportunities to this event,
please see [GoVermont](http://GoVermont.com) 's website.



Steering Committee Meeting Minutes

April 25, 2012, 2011; 8:00 am – 12:00 pm

Sheraton Conference Center

DRAFT

1. **Breakfast and Networking.** 7:45-8:10.

2. **Call to Order & Introductions.** At 8:10 Penrose welcomed everyone and thanked people for attending. She also announced that Mayor Weinberger from the City of Burlington will be coming later. Penrose gave an overview of the agenda for the meeting.

3. **Quick Review of Project Status & Documenting Efforts.** Sandy Miller, ECOS Co-Chair, reviewed the project status and discussed that the criteria are scheduled for approval during the July Steering Committee meeting.

4. **Approval of January 25, 2012 Meeting Summary – ACTION.** Sandy Miller asked for a motion and a second. There were no changes. **Garrett Mott moved, seconded by Marty Illick. Vote: motion carried.**

5. **Documenting efforts.** Sandy Miller asked everyone to make sure to fill out the yellow sheets on their tables which will document their time spent on the ECOS project to help with matching in-kind contributions to the HUD grant. All hours should be recorded, including efforts made by other community members who were not present at the Steering Committee meeting. He also encouraged municipalities to invite Steering Committee members to their meetings and mentioned that he will contact municipalities and ask to be put up on their agendas.

5. **2012 Interim Indicator Report – Progress Report** – Sandy Miller handed things over to Regina Mahony who explained that the current draft of the indicator report was the result of a tremendous amount of work, and that they are calling it the “interim” report specifically because there is still a lot more that needs to be done. It is being recommended that this phase of the project be paused to allow Phase 4 of the project to be worked on.

She reminded everyone that the purpose of the indicator report is to keep efforts focused on the goals, and to ensure accountability of the project. The Indicators tell a story about what’s going on, makes sure the county is moving towards sustainability, and alerts people about what issues need the most attention. The Interim Report is the first step in bringing together all of the other steps of the project. Regina explained that the yellow highlighting in the report indicates performance measures on the strategy level, as opposed to on a broader outcome-based level.



This report, as opposed to the old one, is organized based on topic area in an effort to make it more digestible to the reader as opposed to just having the 39 goals. There are also data gaps for indicators that would be great to have, but for which information does not currently exist.

She continued to explain that the Indicator Report still has the four broad goals: built environment, economic infrastructure, natural systems and social community as well as the sixteen topics, 39 goals, key issues and 265 indicators. The issue is that reporting on 265 indicators each year will be too much, and therefore the number will need to be refined a bit to a number that is more manageable. Regina then explained that there are matrices at the end of the Indicator Report. There is one matrix for each broad goal, and they help reference how the goals overlap and are connected.

She finished by thanking everyone for their time and effort on moving things forward to this point. She reiterated the fact that the Long Range Planning Committee and staff recommended a pause at that point, instead of bringing any kind of motion. For the annual Indicator Report the RPC will likely form a partnership to complete the annual report as it will be a hefty effort.

Kate McCarthy asked for a round of applause for Regina Mahony and Elizabeth Reaves for their efforts, and for leading things well so far.

Regina handed things over to Sandy Miller.

6. Engagement and Outreach tools. Sandy Miller announced that Ken Millman and Becca Burns from SP!KE advertising will be talking about the main techniques to engage the community in the outreach process.

Becca Burns thanked everyone for their hard work, and reminded everyone of what their marketing objectives were. These objectives include informing people about what the ECOS project is, encouraging participation, and making it easy to share information about the project. Identifying gate-keepers to the target audience is essential. Successfully carrying out the objectives will be accomplished through consistent messaging and clear calls to action. She then invited Ken Millman to explain the tools SP!KE will use to do this.

Ken went over the talking points that SP!KE recommends people use when talking to people about the ECOS project. A handout was passed around for people to use as a guideline when talking about the project. An example:

The ECOS project IS both a process and a plan for managing sustainable growth in Chittenden County. The ECOS project IS for anyone and everyone who has an interest in how we all live, work and play together in the County. This project IS an incredibly unique opportunity for municipalities, organizations, businesses, residents to come together and actually have an impact on how we preserve and improve our quality of life. And the best part of the ECOS project (this is the turning point in your elevator speech) is that YOU can play a part.



Ken reminded everyone that all of the information about the project is available online at ecosproject.com, including a short informational video. Cards were distributed to handout to people who want to know more about the project. It includes some of the key talking points, as well as a link to the informational video and a QR code that will take them to the website.

The informational video was shown. Ken Explained that the video is 98% done as there are still a few tweaks that need to be made.

Comments:

Ed Booth wanted to confirm that the version of the video viewed was the version that is “98% completed,” which was confirmed. He also brought up that there should be a figure that looks like a female, as all of the figures in the video looked male.

Debbie Ingram suggested that there should be different colored people in the video.

Jim Dudley mentioned that some of the text is hard to read because of timing.

Kate McCarthy asked for a phone number and web address to be provided at the end.

Kari Papelbon wanted to know how large the video is, and was assured that there are many versions available depending on the limitations of the site where the video is going to be posted.

Regina Mahony added that along with the work being done by SP!KE, they are also working with Burlington City Arts on a couple of engagements efforts that are still in the works. There will be a few ice cream socials, potentially something at the Jazz Festival, involvement with the Young Writers Guild (possibly an ECOS prompt), and photography engagement sessions. Hopefully the results of all the engagement efforts can be showcased at the Champlain Valley Fair. She reminded everyone that involvement and participation is necessary for these efforts to be successful.

Sandy Miller introduced Burlington’s mayor Miro Weinberger. He spoke about the tremendous amount of cooperation that exists between the South Burlington and Burlington communities, and thanked the Mayor for all of his support and cooperation so far. Sandy mentioned that this type of municipal cooperation is what the ECOS project is all about.

7. Mayor Miro Weinberger spoke. 8:55. The Mayor thanked Sandy for his words, and expressed that he also believes in the strong need for regional cooperation. His attendance at the meeting, he said, was his first direct experience with the project, and he hopes to learn more about the project goals and what role the new administration will play in helping the project succeed. He finished off by saying that he believes the ECOS project will result in



meaningful change in the county and that he thinks linking the identified indicators to measured progress will be an effective way to bring about real change.

8. Strategy/Action Prioritization Criteria. Charlie Baker explained the need for the Prioritization Criteria, and walked everyone through the very rough first draft. These criteria will serve as a tool to prioritize regional strategies and projects for the Metropolitan Transportation Plan (MTP) and the Comprehensive Economic Development Strategy (CEDs). The criteria will also decide what projects will be funded through the ECOS project and gauge how actions further the goals of the ECOS plan.

This meeting included a workshop during which Steering Committee members reviewed the current criteria and draft changes were made before the document was released for public review. This review focused on the content of the criteria, not the details about how the funding mechanisms will work, etc. The main questions that Charlie reminded people to keep in mind while reviewing the criteria were, “are these the right criteria?” and, “is the scoring right?” Charlie reminded people to choose workshop groups that best fit with their interests and expertise.

Jim Dudley had a question about the hierarchy of topics and how they are distributed within the broad goals. Charlie explained where the topic areas fell in terms of the goals.

Break. 9:10- 9:25

9. Strategy/Action Prioritization Criteria- WORKSHOP EXERCISE. 9:30 - 11:30

10. Next steps/Engagement Efforts- Sandy Miller welcomed everyone back to the larger group and thanked them for their help. He handed things over to Regina who went through these quick next steps.

- a. Soon – Look for the final video in email and spread the word.
- b. May 1st to May 31st - Submit Comments on Draft Prioritization Criteria; ECOS approval anticipated at the July meeting.
- c. May to June - Attend and spread the word about Burlington City Arts engagement efforts to help inform the strategies.
- d. July meeting -
 - Review first draft of ECOS Plan with regional strategies.
 - Review proposed RFP for ECOS Implementation.

11. Meeting adjournment. 12:00. Next Meeting will be on July 25, 2012 from 8am to 10am at the Vermont Energy Invest Corporation (VEIC).

ECOS Implementation Grant Program RFP

DRAFT

Due Date: Friday, September 21, 2012



Chittenden County Regional Planning Commission
110 West Canal Street, Suite 202
Winooski, VT 05404

(802) 846-4490, ext. 28 Phone
email: rmahony@ccrpcvt.org
website: www.ecosproject.com

ECOS Implementation Grant Program

Managed by the Chittenden County Regional Planning Commission

APPLICATION PACKAGE

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Instructions:

1. Read the Program Overview/Summary to better understand the purpose and objectives of the ECOS Implementation Grants program and to ensure that your project is eligible for a grant.
2. Complete the Grant Application Summary. Please type or print in blue or black ink. Please provide all requested information. Please place an "N/A" in any space that does not apply to your project. (If you would rather complete an electronic version, download this document from our web site at <http://www.ecosproject.com/actions>.)
3. Please self-score your ECOS Implementation Grant proposal using the ECOS Implementation Project Evaluation Criteria described on page 6. Please be sure to review all of the criteria as your project may score positively in a topic area that may appear irrelevant at first glance. Please enter a score for every item; even if that score is 0 (zero). Any supporting information should be entered into the Explanation/Comments column. Please do not provide any further information beyond that column, unless absolutely necessary.
4. Please identify a lead applicant and if applicable, partners. Letters of Commitment are required from the legislative body or organizational boards of the lead applicant and all partners. If the letters cannot be ratified and submitted with the application; they must be submitted no later than 9am on Tuesday, October 24th.
5. Assemble your application package in the following order: (A) Project Summary and attachments (feasibility study or equivalent report, maps, drawings, and budget support information), (B) Project Evaluation Criteria Documentation, (C) Letters of Commitment, (D) a letter of support from the municipal legislative body or other organization pledging the required 10 percent minimum match (this information may be submitted in the Letters of Commitment), and (E) any additional pertinent information (e.g., other letters of support). Please review your package for completeness and accuracy. You may also include a brief cover letter. **Any application packages that are not received by the application deadline will not be eligible for consideration.**
6. Submit **three (3) printed copies, and a pdf version**, of your application package **by 4:00 PM, Friday, September 21, 2012 to:**

Regina Mahony, Senior Planner
Chittenden County Regional Planning Commission
110 West Canal Street, Suite 202
Winooski, VT 05404
(802) 846-4490 x28 or rmahony@ccrpcvt.org

ECOS IMPLEMENTATION GRANTS PROGRAM OVERVIEW AND SUMMARY

Description

The Chittenden County Regional Planning Commission (CCRPC), on behalf of the ECOS Steering Committee, is requesting proposals for projects that will progress the goals and criteria of the ECOS Project (www.ecosproject.com).

The ECOS project is an on-going process for managing sustainable growth in Chittenden County for a healthy, inclusive and prosperous community. The project will result in a Plan for the region that will function as the Regional Plan, Metropolitan Transportation Plan (MTP) and Comprehensive Economic Development Strategy (CEDS). The project has been built upon existing and emergent planning processes and is intended to improve cooperative regional planning and implementation. The project is managed by the Chittenden County Regional Planning Commission with a 65+ member Steering Committee. The first draft of the plan has been established and it includes a common shared vision and goals, analysis and trends, measurable indicators, prioritization criteria and implementation strategies.

The ECOS Project is funded by a \$1 million federal grant from the U.S. Department of Housing and Urban Development (HUD) through the Sustainable Communities Regional Planning Grant Program. Rather than using all of this funding on planning, \$280,000 has been retained for implementation projects. Therefore, the CCRPC, on behalf of the ECOS Steering Committee, is requesting proposals for projects that will progress the goals and criteria of the ECOS Project.

Grant Amount

The total budget for the ECOS Implementation Grants is approximately \$280,000. Applicants may apply for any dollar amount between \$10,000 and \$50,000. A match of 10% is required (match may be cash or in-kind). Letters of commitment are required for all match amounts. At least \$30,000 of these funds will be awarded to multi-jurisdictional activities.

Eligible Projects

Proposals may include projects/initiatives that will progress the goals and criteria of the ECOS Project; and will result in a benefit to Chittenden County. Implementation activities may include, but are not limited to:

- Bylaw Revisions - Interested municipalities (potentially with partners) may revise their bylaws or develop programs to provide incentives and eliminate barriers for sustainable development, such as affordable housing, fair housing, multi-family housing, high density development, natural resource protection, transit-oriented development, etc. Visual demonstrations of the outcome of potential by-law revisions through renderings to communicate to residents how the proposed improvements will fit into the existing context of the community and the benefits they offer are encouraged.
- Capital Projects – Develop conceptual plans, scoping or capital projects. These may include wastewater, stormwater, transportation, telecommunications or other capital facilities.
- Programs – Develop or implement programs for needed services.
- Funding and Financing Plans - Develop funding and financing plans to implement needed improvements or services. Include transportation, transit, water, sewer, stormwater, solid waste, telecommunications, or other services. Conduct feasibility studies as needed.
- Multi-Jurisdictional Agreements - Develop multi-jurisdictional agreements needed to improve service effectiveness and reduce costs for municipalities, businesses and residents. This may result in shared development, costs and/or benefits and include services such as public safety, stormwater, transportation, etc.
- Primary Data Source Collection – Develop surveys or other methods for collecting primary data to enhance knowledge about the ECOS goals.

Who May Apply for ECOS Implementation Grants

Any public, private or non-profit entity is eligible as long as the project will meet the goals of the ECOS project and will benefit Chittenden County.

How Projects are Selected for Grants

The ECOS Implementation Grant Review Committee, appointed by ECOS Steering Committee co-chairs, will evaluate each project against the program's goals and criteria as listed in the ECOS Implementation Project Evaluation Criteria starting on page 6. The self-scores submitted with the grant application will be used as a reference for the Review Committee in completing their evaluations of the grant applications. The Review Committee will rank the proposals and make funding recommendations to the ECOS Steering Committee for final decisions. Funding priority is based on the degree to which the project meets the ECOS Implementation Project Evaluation Criteria.

Grant Administration

The CCRPC will make grants of a maximum 90 percent total project cost, with a minimum 10 percent match. Applications with a higher match percentage will receive additional points in the scoring system. In-kind services (i.e., the value of staff or volunteer time) may be used for some or the entire match, however a detailed description adequate to support the grantee's claim for in-kind service credit must be provided with the application (use hourly rate for Staff (salary plus fringe); or \$20.66/hour for volunteer time). The documentation should indicate the estimated hours and rates by labor class and task. One lead applicant must be identified for fiduciary purposes. Additional partners may also be identified.

NOTE: Unless extenuating circumstances apply, all grants under this program will be paid out on a reimbursable basis. Billing will go to HUD on a monthly basis for payment. Documentation of work and progress on these grants must be provided with each bill.

Schedule

1. Grant request released August 1, 2012 (if not earlier).
2. Questions on the application or submittal requirements may be submitted by Friday, August 10, 2012, at noon. The questions will be answered by August 15, 2012 in one submittal to all parties who have submitted questions and will be posted on the website.
3. Applications due by 4:00 PM, Friday, September 21, 2012.
4. Letters of Commitment (lead applicant and, if applicable, partners) are requested to be filed with the application. If commitment(s) cannot be obtained by Friday, August 10th, at noon any remaining letter(s) of commitment must be received by 9 a.m. on October 24, 2012.
5. Applicants should expect to hear an award decision by November 1, 2012 and funds will be available immediately thereafter. Work undertaken prior to November 1st, or prior to execution of a grant agreement, including in-kind efforts, will not be eligible for reimbursement.
6. All work needs to be completed by December 31, 2013; and all reporting documentation must be submitted by January 15, 2014.

Procurement Procedures

This project is funded with federal public funds and will therefore require compliance with all applicable federal, state and local rules and regulations. Please review the Cooperative Agreement Provisions (found here: www.ecosproject.com/actions) and sign the statement located on page 6 acknowledging that you agree to comply with these HUD requirement. CCRPC is the grantee and there are requirements that will flow through CCRPC to the selected ECOS Implementation grantees.



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Questions? Contact Regina Mahony at 846-4490 x-28 or rmahony@ccrpcvt.org

ECOS IMPLEMENTATION GRANT APPLICATION SUMMARY SHEET

Project Title:	
Brief Project Description: (Attach 1 page description if needed)	
Expected Final Product	
Municipality(ies) and/or Organizations:	

NOTE: If applicable, please attach (A) a map showing the proposed project area and any project-level detail possible and (B) any available conceptual drawings and illustrations.

Total Project Cost	\$
ECOS Implementation Grant Request	\$
Match	\$

Lead Applicant

Municipality/Organization	
Contact Person	
Phone Number	
Fax Number	
Email Address	
Mailing Address	

Project Partners (if applicable)

Agency/Organization	
Contact Person	
Phone Number	
Fax Number	
Email Address	
Mailing Address	

Other project partners (if applicable). Please provide all information as requested above:

Project Budget

Provide a project budget by task and labor costs. Task examples include administration, document preparation, public outreach, and printing expenses. Attach any documentation, such as preliminary consultant quotes, as appropriate.

Tasks	Costs			Sub Total
	Staff Labor	Consultants	Material	
1.	\$	\$	\$	\$
2.	\$	\$	\$	\$
3.	\$	\$	\$	\$
4.	\$	\$	\$	\$
5.	\$	\$	\$	\$
Totals	\$	\$	\$	\$

Project Funding

Identify and summarize ECOS Implementation program and matching fund sources. Matching funds may include any sources from public or private sources and in-kind labor. Please attach documentation outlining any in-kind match allowance you anticipate claiming. For in-kind service please use an hourly rate for Staff (salary plus fringe); or \$20.66/hour for volunteer time.

Amount of ECOS Implementation program funding requested:	\$
<i>Matching funds sources (indicate if already secured or pending):</i> 1. 2. 3.	<i>Matching funds amount:</i> \$ \$ \$
Total Matching Funds	\$
Total project budget:	\$

Who and/or what will benefit from this proposal?



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Project Schedule

Note: Assume a start of work no earlier than November 1, 2012. Milestones may include hiring a consultant, public/landowner outreach, completion of final documentation including semi-final plans and cost estimates, estimated bid date for construction and project completion.

Milestone	Month/Year

Cooperative Agreement Provisions

This project is funded with federal public funds and will therefore require compliance with all applicable federal, state and local rules and regulations.

I have reviewed the Cooperative Agreement Provisions (found here: www.ecosproject.com/actions) and agree to comply with these HUD requirements if awarded this grant.

Lead Applicant

Date

ECOS Implementation Project Evaluation Criteria

The ECOS Implementation Grant Review Committee will evaluate each project against the program's goals and criteria as listed in the following criteria.

INSTRUCTIONS: Please self-score your ECOS Implementation Grant proposal using the ECOS Prioritization Criteria attached. Please be sure to review all of the criteria as your project may score positively in a topic area that may appear irrelevant at first glance. Please enter a score for every item; even if that score is 0 (zero). Any supporting information should be entered into the Explanation/Comments column. Please do not provide any further information beyond that column, unless absolutely necessary. This self-score will be used as a reference by the ECOS Implementation Grant Review Committee in completing their evaluations of the grant applications.

There are two maps at the end of this document that may help you determine your score in some of the topics:

1. CC Regional Planning Area & Distance from Transit Routes (this will help with many criteria); and
2. Areas where 10% or more of the Households are Below the Poverty Level (will help with Economy #7).



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Ecological Systems				
<ul style="list-style-type: none"> • Conserve, protect and improve the health of native plant, fish, and wildlife habitats. • Conserve, protect and improve water quality and quantity in Chittenden County watersheds. • Conserve, protect and improve the air quality by reducing emissions of Federal and State-identified air pollutants and greenhouse gases. 				
#	Does the strategy/project/action/program support or provide:	Total Possible Points	points	Explanation/Comments
1.	Measures to conserve, protect, improve and/or manage native species diversity & habitats (terrestrial and/or aquatic)	1		
2.	Measures to correct, avoid, or minimize habitat fragmentation and disruption of wildlife movement, migration and behavior	3		
3.	Measures to remove, prevent or minimize non-native invasive species	1		
4.	Measures to prevent or minimize point and non-point source pollution to surface and ground water; and/or measures to minimize impermeable surfaces	1		
5.	Measures to protect and enhance river corridor connectivity functions and values; and/or measures to provide for flood resiliency in lakes and ponds	1		
6.	Measures to maintain soil quantity and improve soil quality	1		
7.	Reduction of emissions of air pollutants and greenhouse gases	1		
8.	Reduction of application of chemical fertilizers, toxins and pesticides	1		
9.	Measures to improve public awareness and appreciation of value and function of the natural environment	1		
	TOTAL	11		
	TOTAL SCORE OUT OF 100 (Total points earned/divided by 11 times 100)			<i>This will bring equal weight to each topic</i>

Please be sure to review all of the criteria as your project may score positively in a topic area that may appear irrelevant at first glance. Please enter a score for every item; even if that score is 0 (zero).

Scenic and Recreational Resources				
<ul style="list-style-type: none"> Conserve, protect and improve valued scenic and recreational resources and opportunities. 				
#	Does the strategy/project/action/program support or provide:	Total Possible Points	points	Explanation/Comments
1.	Measures to identify, conserve and/or protect scenic and/or recreational resources measures (regulatory and non-regulatory)	1		
2.	Improved public awareness of the value of scenic and/or recreational resources	1		
3.	Measures to address utility and renewable energy generation conflict management	1		
4.	Measures to address the management of multiple resource use conflicts on recreation lands	1		
5.	Measures to improve access to lands for recreation in Suburban and Rural Planning Areas	1		
6.	Measures to improve access to neighborhood recreational facilities in Center, Metro, Village and Suburban Planning Areas	1		
7.	Measures that foster tourism-related businesses and support important sites that contribute to the tourism economy	1		
	TOTAL	7		
	TOTAL SCORE OUT OF 100 (Total points earned/divided by 7 times 100)			<i>This will bring equal weight to each topic</i>

Please be sure to review all of the criteria as your project may score positively in a topic area that may appear irrelevant at first glance. Please enter a score for every item; even if that score is 0 (zero).

Working Lands				
<ul style="list-style-type: none"> Conserve, protect and improve the working farms, forests and earth resources (including local food, energy production and extraction). 				
#	Does the strategy/project/action/program support or provide:	Total Possible Points	points	Explanation/Comments
	Note: Strategy/Project/Action/Programs should only score here if there is no net loss in productive farm or forestland (with the exception of #7).			If a project includes some type of farm operation they are likely to get the majority of the points here; which is not the case in the other topics.
1.	Measures to correct, avoid, or minimize forest and/or farmland fragmentation which increases overall resiliency (completely conserve land and ensure continued productivity = 3pts; partial land conservation that ensures continued productivity; land conservation that keeps land open but not viable for farming/forestry = 1 pt)	3		
2.	Measures to maintain and increase farmland and/or forestland in active agricultural and forestry production	1		
3.	Increased percentage of VT food and/or forest products consumed by those within a day's drive from Chittenden County.	1		
4.	Increased food and/or forest products produced by Chittenden County; including processing and distribution infrastructure	1		
5.	Reduced adverse environmental impacts from agriculture and/or forestry practices (including air, water and soil quality)	1		
6.	Measures to preserve "prime" and "statewide" agricultural soil types in the Rural Planning Areas; and use of agricultural mitigation tools when needed in Center, Metropolitan, Suburban, Enterprise, or Village Planning Areas.	1		
7.	Efforts to properly plan for and manage adverse environmental impacts from extraction and quarry industries; including remediation plans upon completion	1		
	TOTAL	9		
	TOTAL SCORE OUT OF 100 (Total points earned/divided by 9 times 100)			<i>This will bring equal weight to each topic</i>

Please be sure to review all of the criteria as your project may score positively in a topic area that may appear irrelevant at first glance. Please enter a score for every item; even if that score is 0 (zero).

Education				
<ul style="list-style-type: none"> Quality education and lifelong learning opportunities are available to all. 				
#	Does the strategy/project/action/program support or provide:	Total Possible Points	points	Explanation/Comments
1.	Improved access or quality of early childhood education	1		
2.	Increased reading and writing proficiency	1		
3.	Increased proficiency in science and math	1		
4.	Increase parental support and participation in childhood education	1		
5.	Increased higher educational attainment	1		
6.	Increased high school graduation rates	1		
7.	Reductions in racial, cultural and economic disparities in educational proficiency or attainment	1		
8.	Increased global awareness by learning diverse cultures, religions, lifestyles, and an understanding of non-English languages, with a mutual and open dialogue of respect	1		
9.	Increase/improve adult learning opportunities and workforce development for targeted employment sectors and/or workforce sectors (underemployed, unemployed, low income) (Science, Math, Engineering, or Technology = 3 pts, other = 2 pts)	3		
10.	Improved health and wellness of students	1		
	TOTAL	12		
	TOTAL SCORE OUT OF 100 (Total points earned/divided by 12 times 100)			<i>This will bring equal weight to each topic</i>

Please be sure to review all of the criteria as your project may score positively in a topic area that may appear irrelevant at first glance. Please enter a score for every item; even if that score is 0 (zero).



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Health				
<ul style="list-style-type: none"> All residents are healthy. 				
#	Does the strategy/project/action/program support or provide:	Total Possible Points	points	Explanation/Comments
1.	Increased active transport options	1		
2.	Improved access to health care	1		
3.	Improved access to mental health care	1		
4.	Reduced promotion of tobacco to youth	1		
5.	Reduced exposure to environmental tobacco smoke	1		
6.	Reduced promotion of alcohol to youth	1		
7.	Decreased exposure to household hazards (lead, radon, etc.)	1		
8.	Improved access to fresh, healthy foods (fruits, vegetables, whole grains, lean proteins, low-fat dairy).	1		
9.	Improved access to playing areas, parks, trails and other opportunities for physical activity	1		
10.	Creation of tobacco free multi-unit subsidized public housing	1		
	TOTAL	10		
	TOTAL SCORE OUT OF 100 (Total points earned/divided by 10 times 100)			<i>This will bring equal weight to each topic</i>

Please be sure to review all of the criteria as your project may score positively in a topic area that may appear irrelevant at first glance. Please enter a score for every item; even if that score is 0 (zero).



Public Safety, Criminal Justice & Hazard Mitigation				
<ul style="list-style-type: none"> • Improve public safety. • Reduce the loss of life and property from natural and manmade hazards. 				
#	Does the strategy/project/action/program support or provide:	Total Possible Points	points	Explanation/Comments
1.	Improved public safety and/or security of public infrastructure and systems	1		Federal Transportation Consideration
2.	Reduced risks to people and property as a result of severe winter storms, flooding, telecommunications failure, power loss, major transportation incident, fluvial erosion or epidemic	3		
3.	Improvements to an identified high crash location, incident management or documented safety problems	3		Federal Transportation Consideration
4.	Education efforts to decrease racial profiling in policing	1		
5.	Improvements to emergency preparedness coordination	1		
6.	Decreased incidence of crime	1		
7.	Reduced recidivism for incarcerated individuals	1		
8.	Improved transition back into community for incarcerated individuals, including restorative justice	1		
9.	Education efforts to increase public safety (such as bike/pedestrian safety, seatbelts, household chemicals, etc)	1		
	TOTAL	13		
	TOTAL SCORE OUT OF 100 (Total points earned/divided by 13 times 100)			<i>This will bring equal weight to each topic</i>

Please be sure to review all of the criteria as your project may score positively in a topic area that may appear irrelevant at first glance. Please enter a score for every item; even if that score is 0 (zero).

Civic Engagement				
<ul style="list-style-type: none"> Increase active individual and organizational participation in all levels of government by ensuring that government processes are open, transparent, and accessible. 				
#	Does the strategy/project/action/program support or provide:	Total Possible Points	points	Explanation/Comments
1.	Efforts to increase the engagement of the public in government	1		
2.	Efforts to increase the diversity of public boards and commissions to better represent the community(ies) they serve	1		
3.	Efforts to improve the transparency and accountability of government	1		
4.	Increase number of new Americans with citizenship status	1		
	TOTAL	4		
	TOTAL SCORE OUT OF 100 (Total points earned/divided by 4 times 100)			<i>This will bring equal weight to each topic</i>

Social Connectedness				
<ul style="list-style-type: none"> Increase opportunities to engage in the social fabric and activities of the community 				
#	Does the strategy/project/action/program support or provide:	Total Possible Points	points	Explanation/Comments
1.	Improvements to, or expansion of, community gathering spaces	1		
2.	Enriching activities for youth and elderly/seniors	1		
3.	Arts/culture-related activities	1		
4.	Volunteer opportunities, including community service	1		
5.	Recreational programs or access	1		
6.	Opportunities to learn from or about our cultural backgrounds	1		
	TOTAL	6		
	TOTAL SCORE OUT OF 100 (Total points earned/divided by 6 times 100)			<i>This will bring equal weight to each topic</i>

Please be sure to review all of the criteria as your project may score positively in a topic area that may appear irrelevant at first glance. Please enter a score for every item; even if that score is 0 (zero).

Economy

- Retain and support existing employers and jobs.
- Increase and support the development and recruitment of existing and new target sector employers and jobs.
- Increase local business ownership and entrepreneurial activities.
- Improve economic diversity.
- Increase employer and employee workplace diversity.
- Provide land and building capacity for employment supported with adequate infrastructure in town centers, villages and other areas planned for development.

#	Does the strategy/project/action/program support or provide:	Total Possible Points	points	Explanation/Comments
1.	A project of regional (2 or more municipalities) economic significance	1		Federal Economic Development Consideration
2.	Retention or creation of jobs (more than 50 jobs = 3 pts, 20 to 49 jobs = 2 pts, <20 jobs = 1 pt)	3		Federal Economic Development Consideration. How many employees? __FT __PT or __FTE
3.	Jobs for unemployed, under-employed or low income residents including women and minorities.	3		Fed Econ Dev. Consideration. What portion of the jobs identified will be available for these residents? ____
4.	A project that supports small scale community entrepreneurship (such as micro-agriculture, community arts, etc)	1		
5.	Creation of job opportunities that are in high-value added sectors	1		
6.	Assistance to a community (or communities) adapting to a sudden economic change (large layoff, plant closing, international trade)	1		
7.	Investments to benefit areas where 10% or more of the households are below the poverty level	1		
8.	Increased numbers of women or minority proprietors	1		
9.	Encourages linkages and aides in facilitating technology transfer (e.g. commercialization of primary research in the region) between two or more of the following within key or emerging sectors: employers, universities-colleges, work force development programs	1		
	TOTAL	13		
	TOTAL SCORE OUT OF 100 (Total points earned/divided by 13 times 100)			This will bring equal weight to each topic

Please be sure to review all of the criteria as your project may score positively in a topic area that may appear irrelevant at first glance. Please enter a score for every item; even if that score is 0 (zero).



Household Financial Security (Income)				
<ul style="list-style-type: none"> Improve the financial security of households. 				
#	Does the strategy/project/action/program support or provide:	Total Possible Points	points	Explanation/Comments
1.	Jobs that will pay above county median wage	1		
2.	Jobs with a livable wage for low income households and households in poverty	1		
3.	Initiatives that reduce the cost of housing for households	1		
4.	Initiatives that reduce the cost of transportation for households	1		
5.	Initiatives that reduce the cost of household energy use	1		
6.	Initiatives that reduce the cost of healthy food for households	1		
7.	Initiatives that reduce the cost of health care for households	1		
8.	Initiatives that reduce the cost of dependent care for households	1		
9.	Initiatives that addresses the need for employee support through Employee Assistance Programs (EAP)	1		
10.	Programs which supports employer understanding of economically disadvantaged and diversified workforce issues (i.e. Bridges out of Poverty, workforce diversity training).	1		
	TOTAL	10		
	TOTAL SCORE OUT OF 100 (Total points earned/divided by 10 times 100)			<i>This will bring equal weight to each topic</i>

Please be sure to review all of the criteria as your project may score positively in a topic area that may appear irrelevant at first glance. Please enter a score for every item; even if that score is 0 (zero).

Land Use				
<ul style="list-style-type: none"> All future development will support, maintain, and reinforce Vermont's historic settlement pattern of compact hamlets, villages and urban centers separated by and harmonizing with working and natural rural countryside. Clean up contaminated properties for productive reuse. Respect, preserve, restore, interpret, and make accessible archeological and historic resources. 				
#	Does the strategy/project/action/program support or provide:	Total Possible Points	points	Explanation/Comments
1.	Redevelopment or development of properties, including public service facilities, in Center, Metro, Suburban, Enterprise or Village Planning Areas (< 1/4 mile from transit fixed route = 3 pts, ¼ to ¾ mile from transit fixed route = 2 pts, more than ¾ mile from transit fixed route = 1 pt)	3		Federal Transportation Consideration
2.	Development (in the Center, Metro, Enterprise or Village Planning Areas) that is higher density than the current adjacent land use pattern.	1		
3.	Development that contains a mix of uses or is integrated into an area of mixed land uses in the Center, Metro, or Village Planning Areas	1		
4.	Development projects that completely conserve a portion of the land in productive farm or forestland uses (in the Rural Planning Area = 2pts, all other Planning Areas = 1pt)	2		
5.	Adaptive re-use of one or more existing buildings	1		
6.	Infill development in Center, Metro, Enterprise, Village or Suburban Planning Areas	1		
7.	Contaminated property clean-up and/or redevelopment	1		
8.	Enhancements to archeological and historic resources (ie. should not include regulated protection of these resources from development)	1		
9.	Measures to limit and mitigate noise and/or light pollution.	1		
	TOTAL POINTS	12		
	TOTAL SCORE OUT OF 100 (Total points earned/divided by 12 times 100)			This will bring equal weight to each topic

Please be sure to review all of the criteria as your project may score positively in a topic area that may appear irrelevant at first glance. Please enter a score for every item; even if that score is 0 (zero).



A SUSTAINABLE FUTURE FOR CHITTENDEN COUNTY

Housing				
<ul style="list-style-type: none"> • Increase the opportunities for safe, decent, energy efficient, affordable, accessible and fair housing for all. 				
#	Does the strategy/project/action/program support or provide:	Total Possible Points	points	Explanation/Comments
1.	Additional new or rehabilitated housing units (3pts for >30 units; 2pts for 20 to 30 units; 1pt for 10 to 20 units)	3		
2.	Additional affordable housing units (3pts for >10% of units affordable to those earning less than 30% of the Area Median Income (AMI) ; 2pts for >20% of units affordable to those earning between 30% and 60% of the AMI; and 1pt for >40% of units affordable to those earning between 60% and 80% of the AMI)	3		Federal Transportation Consideration
3.	Improvements to the quality of existing housing (3pts for major rehabilitation or renovation – defined as more than \$30,000 per unit; 2pts for moderate rehabilitation or renovation – defined as between \$15,000 and \$30,000 per unit; and 1pt for minimal rehabilitation or renovation – defined as less than \$15,000 per unit)	3		Federal Transportation Consideration
4.	Housing for individuals needing enriched services (3pts if at least 10% of the units are special needs or supportive housing – as defined by VHFA’s QAP)	3		
5.	Universal design housing to help accommodate different needs of various demographics (3pts if at least 20% of the units are universally designed, 2pts if between 10% and 20% are universally designed, and 1pt if between 1% to 10% are universally designed)	3		
6.	Measures to remove barriers to Fair Housing.	3		
7.	Increase housing for students of higher educational institutions.	1		
	TOTAL	19		
	TOTAL SCORE OUT OF 100 (Total points earned/divided by 19 times 100)			<i>This will bring equal weight to each topic</i>

Please be sure to review all of the criteria as your project may score positively in a topic area that may appear irrelevant at first glance. Please enter a score for every item; even if that score is 0 (zero).

Transportation Choice, Accessibility, Mobility, and Connectivity <ul style="list-style-type: none"> Provide accessible, safe, efficient, interconnected, secure, equitable and sustainable mobility choices for businesses, residents and visitors 				
#	Does the strategy/project/action/program support or provide:	Total Possible Points	points	Explanation/Comments
1.	Transit services or increased transit connectivity	1		Federal Transportation Consideration
2.	Bicycle/pedestrian linkages, regional connections, bicycle parking, improvements to ADA accessibility, or safety education programs	1		Federal Transportation Consideration
3.	Intermodal goods access to the airport, a freight distribution facility, the rail network, or a major employment center	1		Federal Transportation Consideration
4.	Multi-modal transportation connections	1		Federal Transportation Consideration
5.	Transportation project located in, or connecting to, the Center, Metro, Enterprise, or Village Planning Areas (3 Pts.)	3		
6.	Transportation Demand Management (TDM) initiatives to reduce SOV travel and/or redistribute travel demand as an alternative to increasing roadway capacity, including but not limited to, new or expanded park and ride lots.	1		Federal Transportation Consideration
7.	Transportation System Management (TSM) initiatives to increase the efficiency of existing infrastructure, such as traffic signal coordination, vehicle detection system upgrades, access management or other Intelligent Transportation System (ITS) improvements related to highway or transit operations	1		Federal Transportation Consideration
8.	Congestion reduction initiatives related to corridors, intersections, or multimodal facilities with significant congestion (LOS F = 3 pts; LOS E = 2 pts; LOS D = 1 pt)	3		Federal Transportation Consideration
9.	Enhancement to transportation system preservation	1		Federal Transportation Consideration
10.	Transportation related tourism initiative	1		
	TOTAL	14		
	TOTAL SCORE OUT OF 100 (Total points earned/divided by 14 times 100)			<i>This will bring equal weight to each topic</i>

Please be sure to review all of the criteria as your project may score positively in a topic area that may appear irrelevant at first glance. Please enter a score for every item; even if that score is 0 (zero).

Energy

- Reduce energy consumption through energy conservation and efficiency.
- Encourage the generation of renewable sources that are distributed and produced in an environmentally responsible manner.
- Maintain and develop energy production, transmission, and distribution infrastructure that is efficient, reliable, cost-effective, and with lower impact on the natural environment.

#	Does the strategy/project/action/program support or provide:	Total Possible Points	points	Explanation/Comments
1.	Reductions in per capita energy usage	1		Federal Transportation Consideration
2.	Reduce use of non-transportation electricity	3		
3.	Reduce use of fossil fuels	3		
4.	Increase use of renewable energy	1		
5.	Increase distributed renewable generation	1		
6.	Improvements in reliability of the energy delivery system	1		
7.	Employ site design, building orientation and design, building materials, utility systems, and production systems that promote energy efficiency and distributed generation.	1		
8.	Help municipalities, businesses and home owners understand and value energy efficiency and renewable energy sources to make management and facility changes to reduce long term energy use and costs	1		
9.	Leverage community volunteers to facilitate install of efficiency measures and/or educate general population about efficiency and renewable energy opportunities	1		
	TOTAL	13		
	TOTAL SCORE OUT OF 100 (Total points earned/divided by 13 times 100)			<i>This will bring equal weight to each topic</i>

Please be sure to review all of the criteria as your project may score positively in a topic area that may appear irrelevant at first glance. Please enter a score for every item; even if that score is 0 (zero).

Other Infrastructure

- Ensure adequate public water supply within service areas.
- Ensure adequate infrastructure for wastewater treatment in areas planned for growth and service areas.
- Manage storm water runoff affordably and effectively.
- Ensure equal access to appropriate and affordable communication services for all.
- Decrease materials consumption and increase the use of renewable resources, resource recovery and recycling.

#	Does the strategy/project/action/program support or provide:	Total Possible Points	points	Explanation/Comments
	Note: Only infrastructure/utility projects should be scored here; not development projects that include these components.			
1.	Maintenance of high quality water utilities and service	1		
2.	Maintenance of wastewater treatment facilities and increased wastewater treatment capacity and collection infrastructure in the Center, Metro, Suburban, Enterprise and Village Planning Areas with the particular purpose of allowing for increased development capabilities in these areas	1		
3.	Low Impact Development, Green Infrastructure and/or Environmental Site Design stormwater management programs and techniques with the particular purpose of allowing for increased development capabilities in these areas without increasing adverse environmental impacts on our water bodies	1		Federal Transportation Consideration
4.	Efficiencies to provide for increased capacity and supply within existing infrastructure rights-of-way	1		
5.	Increased and improved communication services	1		
6.	Measures to reduce our solid waste stream such as recycling and composting	1		
	TOTAL	6		
	TOTAL SCORE OUT OF 100 (Total points earned/divided by 6 times 100)			<i>This will bring equal weight to each topic</i>

Please be sure to review all of the criteria as your project may score positively in a topic area that may appear irrelevant at first glance. Please enter a score for every item; even if that score is 0 (zero).

SUM of all 15 Sub-Totals: _____



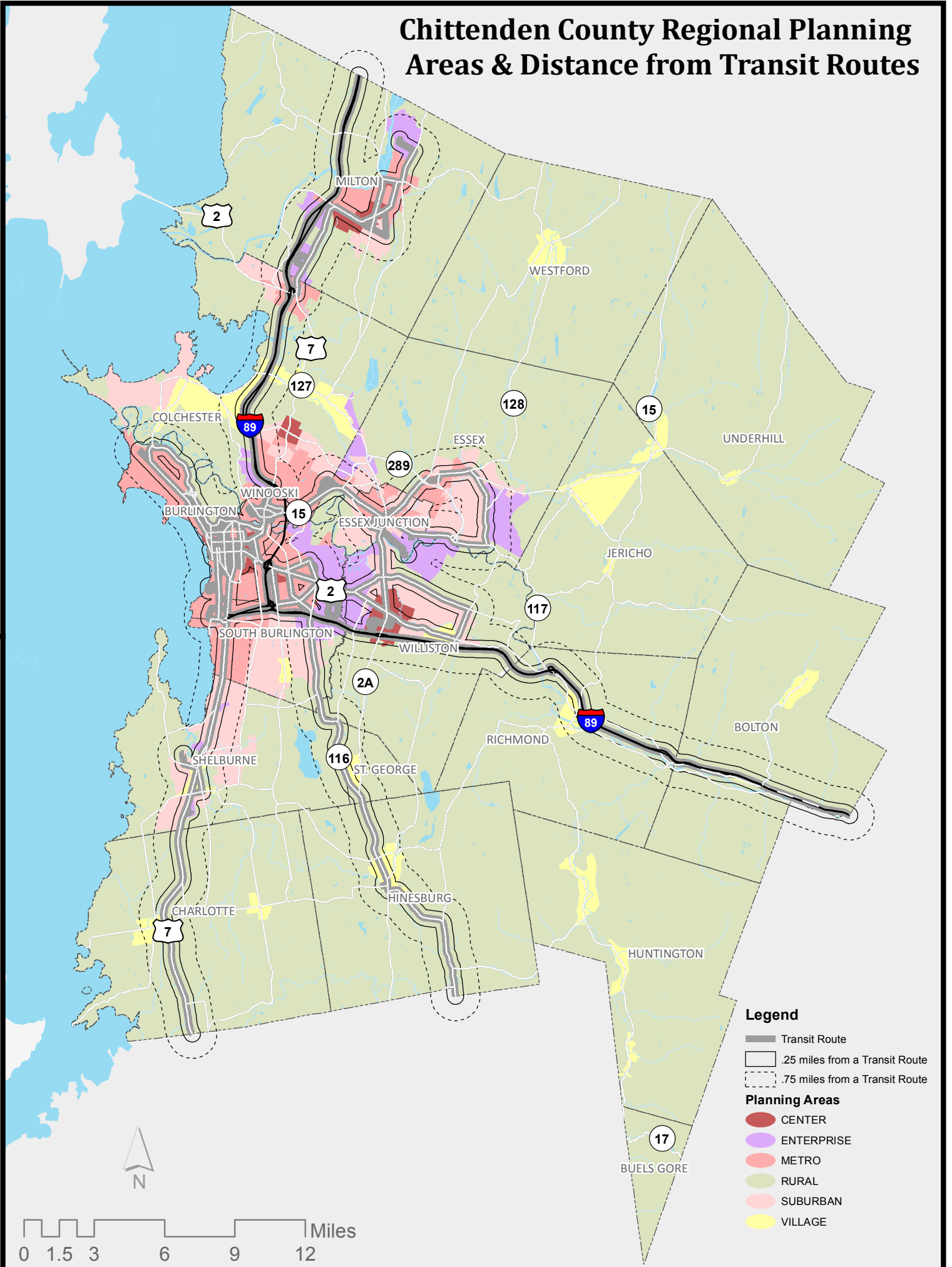
General				
#	Evaluate the strategy/project/action/program relative to:	Total Possible Points	Points	Explanation/Comments
	Project Need:			
1.	The initiative must have earned points from at least 3 topic areas.	Yes/No		If no, the initiative will not be funded.
2.	The project meets one or more goals or strategic priorities in the Municipal Plan(s) or other studies/plans point to this project as being needed	1		
	Partnerships & Participation:			
3.	Demonstrates unique partnerships with other municipalities, companies and/or organizations to achieve desired outcomes	2		
4.	Addressing the needs of, or removing barriers for, low income, racial and ethnic minorities, low educational attainment, disabled or limited English proficiency populations	10		
5.	Demonstrated public input into the proposal and measures taken to address public input and/or explanation of how the public will be engaged in the effort	3		Were low income, communities of color engaged? Who was this project discussed with to determine a need? Is there opposition? If yes, describe.
	Project Readiness:			
6.	The project's planning is developed to the point where it could move forward within 6-12 months of approval (including permits/approvals have been secured if needed)	1		Federal Economic Development Consideration
7.	Project has a detailed cost estimate that is realistic and reasonable (is it a recent estimate)	1		
8.	Other needed funding sources are secured	1		
9.	Does the applicant have control of the project area?	-1 or 0		Federal Economic Development Consideration If site control is not needed no point is awarded; if site control is needed and not yet secured -1 is awarded.
10.	Does the applicant have the capacity to complete the project efficiently and successfully? Do they have a proven track record?	1		Federal Economic Development Consideration
	Cost/Benefit Analysis:			
11.	Benefit/cost: The total project scoring sums (from the 15 topic areas) will be divided into their estimated cost to produce a cost/benefit number. The smaller that number, the more cost/benefit points will be awarded – up to 10 max. Ranges will be developed to correspond to the high to low impacts once all projects have a calculated cost benefit number.	0-10		
12.	The proposed project offers a high likelihood of "high return" on the taxpayers' investment	3		Federal Economic Development Consideration The proposed EDA funding percentage is 25% of total funding or less and/or provides direct assistance to low- and moderate-income households
13.	Project leverage: extent to which there is match provided (1 pt for every 10% up to max of 5 pts)	5		
14.	The project is innovative and creative, and/or guided by best practices, theory, or research knowledge and will function as a pilot project that will result in savings if replicated.	1		



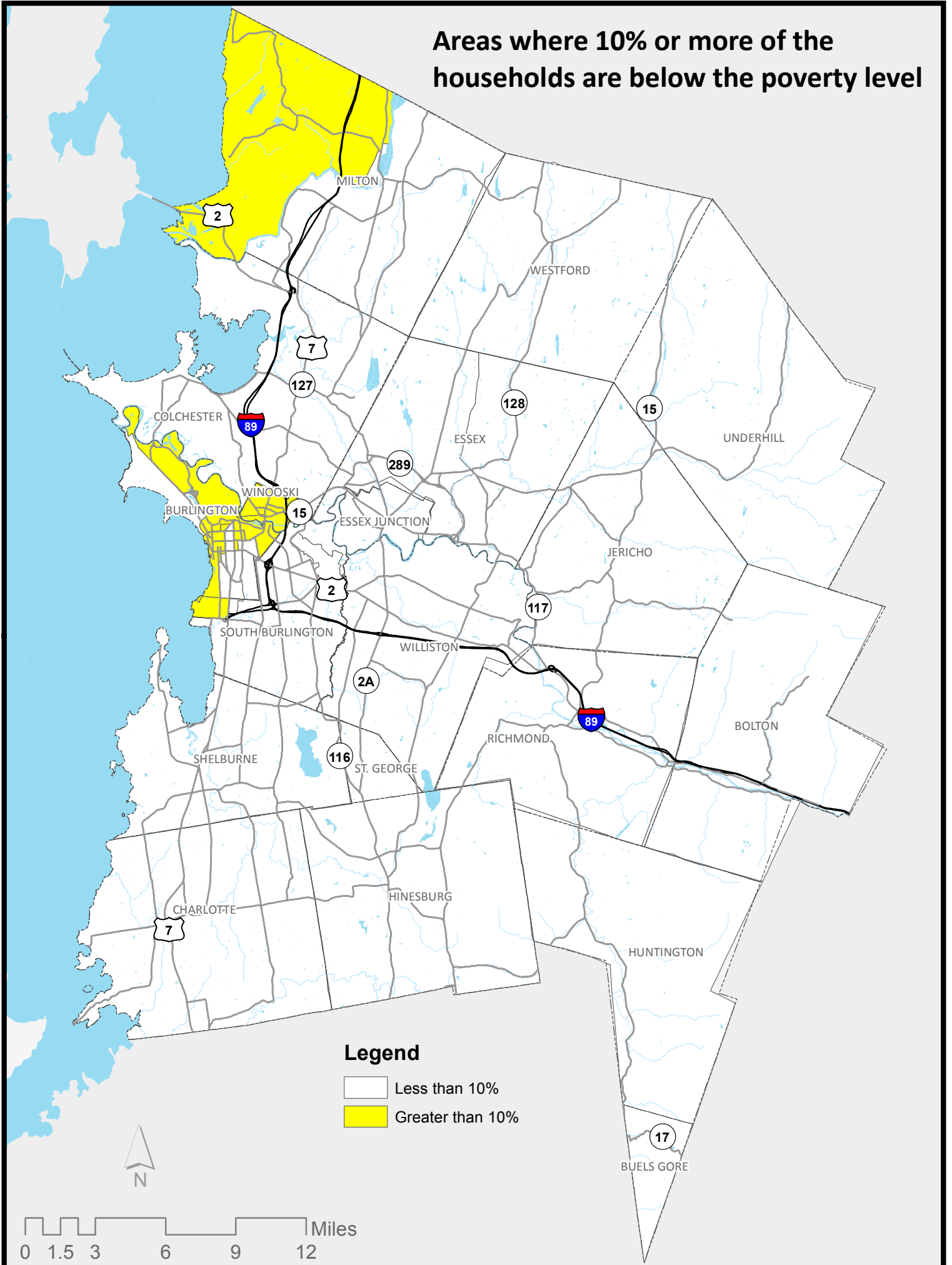
A SUSTAINABLE FUTURE FOR CHITTENDEN COUNTY

	Sustainability:			
15.	Ability to maintain the result/effort and measure the positive impacts. Is there a commitment for long term maintenance?	10		Please list the ECOS indicators that this effort will address. You can find the Indicator Report here: http://www.ecosproject.com/indicators
16.	Does this activity impede other activities, other opportunities that will be lost or delayed if this initiative moves forward?	-1		If negative, can the impact be mitigated?
17.	Note: The review Committee may take other considerations into account such as geographic area covered by a particular proposal; or any negative impacts that a particular proposal may have on other criteria.			
	TOTAL	49		
	TOTAL SCORE OUT OF 100 (Total points earned/divided by 49 times 100)			<i>This will bring equal weight to each topic. Does this section get more or less weight than an individual topic?</i>

Chittenden County Regional Planning Areas & Distance from Transit Routes



Areas where 10% or more of the households are below the poverty level





MEMORANDUM

To: ECOS Steering Committee Members
From: Regina Mahony
Date: July 18, 2012
Re: First Rough Draft ECOS Plan dated July 18, 2012

Attached you will find the FIRST rough draft ECOS Plan. Here are a few notes to help guide you through the document and specific guidelines for helping to improve the document over the next two months:

Chapter 2 (Regional Analysis) looks very similar to the Indicator Report although we have tried hard to choose the most important data sources. However, some data sets and/or sources are missing (indicated with yellow highlight); and Chapter 2 is too cumbersome to read easily and get a clear picture of what is working well and what needs work.

Therefore, we are asking the sub-committees to refine this chapter over the next two months. At the same time, Elizabeth Reaves is going through a process of scoring all of the indicators in the Interim Indicator Report in order to help in the selection of indicators. The two processes will inform each other and lead to an improved Chapter 2 that will resemble the data that will be collected and reported on in future Annual Indicator Reports. Please keep in mind that the Analysis Reports and the Interim Indicator Report will be appendices to the Plan so that the reader can find more detail on a particular issue if they choose to.

How you can help: Over the next two months we'll be asking the sub-committees to work on refining Chapter 2 under the following guidelines:

- a. Follow the template of the Transportation Section (found on page 69 of the Draft Plan). In particular, please:
 - i. Consolidate the goals so that only one goal exists for each of the 15 topics. This will mean that some of the goals will get longer (see Transportation and Housing as examples). Also, eliminate any sub-topics that currently exist;
 - ii. Limit the key issues to one page;
 - iii. Limit the key indicators to two indicators displayed in a graph/chart/figure (and you may include an additional two to four data points within statements). Please make the indicators readable to the average person (i.e. instead of using the term "per capita" say "per person"). Ideally, these will also be the only data sets collected and reported in future Annual Indicator Reports. To assist the sub-committees, we will provide Elizabeth's evaluation of each of the Indicators currently in the Indicator Report;
 - iv. In this way we will limit each topic in Chapter 2 to 2 pages; and
 - v. Provide conclusions for each topic in narrative form (with key data points where appropriate) on what is working well, and what needs improvement. These conclusions will be pulled together at the end of Chapter 2. The intent is to lay the ground work for what needs to be done for implementation in Chapter 3.

Chapter 3 (Implementation) - we have intentionally moved away from the organizational structure of the four broad goals in order to arrive in a place where we do not continue to conduct business in our traditional silos.



Furthermore, with limited financial resources we need to identify the solutions that are cross-cutting and bring improvement in a variety of topic areas rather than just one or two. While we have made an initial attempt at identifying the highest priority collective impact strategies (located on page 90 of the July 18, 2012 Draft), we are hoping that the sub-committee work over the next two months will improve and revise this list.

How you can help: Over the next two months we'll be asking the sub-committees to work on developing Chapter 3 under the following guidelines:

- a. Identify high priority solutions (aka Collective Impact Strategies) for making the most needed improvements.
 - i. The strategies should be reachable within existing budgets, likely implementable within Chittenden County (although legislative changes at the state level are fine), and be solutions that no single entity working by themselves can achieve;
 - ii. The strategies should not be solely within one topic or silo. Start by drawing connections to the other topics (i.e. does a change need to happen in another topic area in order to bring about positive change in your topic; is something going well in another topic that is helping support your topic?);
 - iii. Identify who should take the lead on implementing the strategies; and who should be a partner in the effort; and
 - iv. Keep in mind that we'd like no more than 10 Collective Impact Strategies, with associated actions.

Timeframe-

1. August –Sub-Committees meet to refine content in Chapter 2.
2. September –Sub-Committees meet to develop content for Chapter 3.
3. Submit Chapter 2 and Chapter 3 content to CCRPC no later than September 26th.
4. First Draft of Plan is revised and sent to LRPC on October 3rd. LRPC meets Oct 11th.
5. Plan is further revised based on LRPC comment and sent to ECOS SC on Oct 17th. ECOS SC meets on October 24th to approve First Draft ECOS Plan (with revisions as needed) for public review.
6. First Draft ECOS Plan is distributed for public review for at least 45 days from early November to late December.
7. LRPC and ECOS SC to review revised ECOS Plan in January and makes recommendation to CCRPC and GBIC.

DRAFT Chittenden County ECOS Plan – 7/18/2012

7/18/2012

For a healthy, inclusive, and
prosperous community

This plan is the combined results of reviewing 60 previous planning documents related to Chittenden County and merging the Regional Plan, Metropolitan Transportation Plan, and Comprehensive Economic Development Strategy in one shared planning process.



ENVIRONMENT | COMMUNITY | OPPORTUNITY | SUSTAINABILITY
A SUSTAINABLE FUTURE FOR CHITTENDEN COUNTY

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ACKNOWLEDGEMENTS

Thank ECOS Partners, CCRPC & GBIC Boards...

List partners and board members. Thank staff

CCRPC AND GBIC RESOLUTIONS

DRAFT Chittenden County ECOS Plan – 7/18/2012



 = additional writing or data needed

A Sustainable Future for Chittenden County

1.0 Introduction

Environment. Community. Opportunity. Sustainability.

- The ECOS Project is both a process and a plan for managing sustainable growth in Chittenden County.
- The ECOS Project is for anyone and everyone interested in how we live, work and play together in Chittenden County.
- The ECOS Project is a unique opportunity for municipalities, organizations, businesses and residents to work together to preserve and improve our quality of life.

The Chittenden County Regional Planning Commission (CCRPC) is charged by the State of Vermont with preparing a regional plan at least every eight years to protect the County's resources and to guide its development. The CCRPC is also charged with establishing a Metropolitan Transportation Plan every five years to . The Greater Burlington Industrial Corporation (GBIC) is charged with establishing a Comprehensive Economic Development Strategy (CEDS) every five years to . The Federal government created the Partnership for Sustainable Communities (a partnership of HUD, EPA, and USDOT) and an opportunity to update all three regional planning documents with one process.

Community and regional planning enable people with different outlooks and awareness to learn about important and sometimes controversial matters, to agree on common objectives, and to collaborate on undertaking coordinated agendas of actions. Public planning should strive to engage people not only because our laws and democratic traditions require it, but also because public engagement makes planning better. Effective public planning promotes:

- Greater understanding of key facts,
- Deeper and more widespread appreciation of divergent views,
- Increased consensus on important goals and objectives, and
- Improved collaboration among stakeholders.

Planning for an entire region is especially challenging. While we all agree that Chittenden County should be a “great place to live, work and play,” there are myriad visions of exactly how such a place should look and which actions we should undertake to achieve this goal. The *ECOS Plan* is intended to articulate the current consensus for our County’s future.

1.1 ECOS Process Summary

Beginning in February 2011, 65 partner organizations have gone through a five phase process to develop this Plan. The five phases were:

1. Goals
2. Analysis
3. Indicators
4. Plan Priorities
5. Plan Implementation

In general, the process has followed a Results-Based Accountability™ model. [Provide a reference for the definitions here] “Results-Based Accountability starts with a crucial distinction: between results for whole populations like all children, all elders, all citizens in a geographic area - and results for the customers or clients of a particular program, agency or service system. The most important reason for this distinction is the difference in who is accountable. Performance accountability can be assigned to the managers who run the various programs, agencies or service systems. Population accountability can not be assigned to any one individual, organization or level of government. The whole community, public and private sectors, must share responsibility for results.”

“Results-Based Accountability is made up of two parts: Population Accountability and Performance Accountability. Results-Based Accountability is the overarching idea which includes results-based decision making and results-based budgeting. Accountability is by someone to someone for something important. “

“Population accountability is accountability BY THE COMMUNITY (city, county or state) TO THE COMMUNITY (city, county or state) FOR THE WELL-BEING (RESULTS) OF A POPULATION (children, adults, families, all citizens...). “

“Performance accountability is accountability BY THE MANAGERS (of the program, agency or service system) TO THE CUSTOMERS (and other stakeholders) FOR THE PERFORMANCE OF THE PROGRAM (agency or service system). Results-Based Accountability is a different way of thinking. It organizes the work of programs, agencies, communities, cities, counties and states around the end conditions we seek for those who live in our community and those receiving service. It uses those end conditions as the grounding for all of the work, including decision making and budgeting. “

“Results decision-making uses results (the desired conditions of well-being) as the starting point for making decisions. It is a business-like process that starts with ends and works backwards to means. It first defines success in measurable terms and uses those measures to gauge success or failure.” (Fiscal Policy Studies Institute, Mark Friedman, http://www.raguide.org/1_1.shtml)

Results Based Accountability = ECOS COLLECTIVE IMPACT

COMMUNITY ACCOUNTABILITY

RESULT: What do we want?

ECOS Goals
ECOS Plan Chapter 1

BASELINE INDICATOR & STORY:

How do things look? Key issues

- INDICATOR over time (baseline & projection)
- 1-3 pieces of data that represent the status of this RESULT in our community
- Where aren't we achieving the goal?

ACCOUNTABILITY BOUNDARY

CROSS WITH INTENTION!

STRATEGIES

*contribute to the
RESULT (no
single strategy
is accountable)*

**COLLECTIVE IMPACT
STRATEGIES/ACTION PLAN:**

WHAT WORKS: What will it take to
get the results we want? (Best
practices, Promising models,
Knowledge of community)

What do we propose to do?

By when?

With what resources?

PARTNERS: Who are the partners
with a role to play?

**OTHER
INFLUENCES**

**PERFORMANCE MEASURES (How much? How well?
Improvements to strategies/actions?)**

= Focus of ECOS Partnership/Indicator Committee

PROGRAM ACCOUNTABILITY

1.2 Vision

A healthy, inclusive and prosperous community.

1.3 Mission

We will have a collaborative planning process with citizens, public and private organizations to develop a consensus regarding priority actions to achieve the goals below. The intent of this effort is to strengthen and enhance coordination, accountability and implementation of the plans of participating organizations such as state and local governments, planning organizations and other partner organizations - including business, environmental, education, and human services.

1.4 Principles

Principles describe our underlying values and guide the selection of strategies and actions to achieve our goals. These 10 principles will guide the selection of strategies and actions to achieve our goals (adapted from Sustainability Goals & Guiding Principles, ICLEI, October 2010).

1. **Think—and act—systemically.** Sustainable communities take a systems perspective and recognize that people, nature and the economy are all affected by their actions. Local governments in these communities consider the broader implications before embarking on specific projects, and they look for ways to accomplish multiple goals rather than default to short-term, piecemeal efforts.
2. **Instill resiliency.** Sustainable communities possess a strong capacity to respond to and bounce back from adversity. Local governments in these communities prepare for and help residents and institutions prepare for disruptions and respond to them swiftly, creatively and effectively.
3. **Foster innovation.** Sustainable communities capture opportunities and respond to challenges. Local governments in these communities cultivate a spirit of proactive problem solving to provide access to futures otherwise unobtainable and to enable the risk-taking inherent in innovation.
4. **Redefine progress.** Sustainable communities measure progress by improvements in the health and wellbeing of their people, environment and economy. Instead of focusing on GDP (throughput of dollars), local governments in these communities use a broad set of indicators.
5. **Live within means.** Sustainable communities steward natural resources so that future generations have as many opportunities available to them as we do today. They also recognize that resources exist for the benefit of life forms other than humans. Local governments in these communities assess resources, track impacts, and take corrective action when needed so that they meet the needs of today while maintaining and improving what they leave for future generations.
6. **Cultivate collaboration.** Sustainable communities engage all facets of society in working together for the benefit of the whole. Local governments in these communities bring government representatives, community members and organizations together and create a

culture of collaboration that encourages innovation, sharing of resources, and jointly shared accountability for results.

7. **Ensure equity.** Sustainable communities allocate resources and opportunities fairly so that all people who do the full range of jobs that a community needs can thrive in it. Local governments in these communities actively eliminate barriers to full participation in community life and work to correct past injustices.
8. **Embrace diversity.** Sustainable communities feature a tapestry of peoples, cultures and economies underpinned by a richly functioning natural environment. Local governments in these communities celebrate and foster ethnic, cultural, economic and biological diversity and encourage multiple approaches to accomplish a goal.
9. **Inspire leadership.** Sustainable communities provide leadership through action and results. Local governments in these communities recognize their opportunity to effect change by backing visionary policies with practices that serve as an example for citizens and businesses to emulate.
10. **Continuously improve.** Sustainable communities engage in continuous discovery, rediscovery and invention as they learn more about the impacts of their actions. Local governments in these communities track both performance and outcomes, are alert for unintended consequences, and modify strategies based on observed results.

1.5 Broad Goals

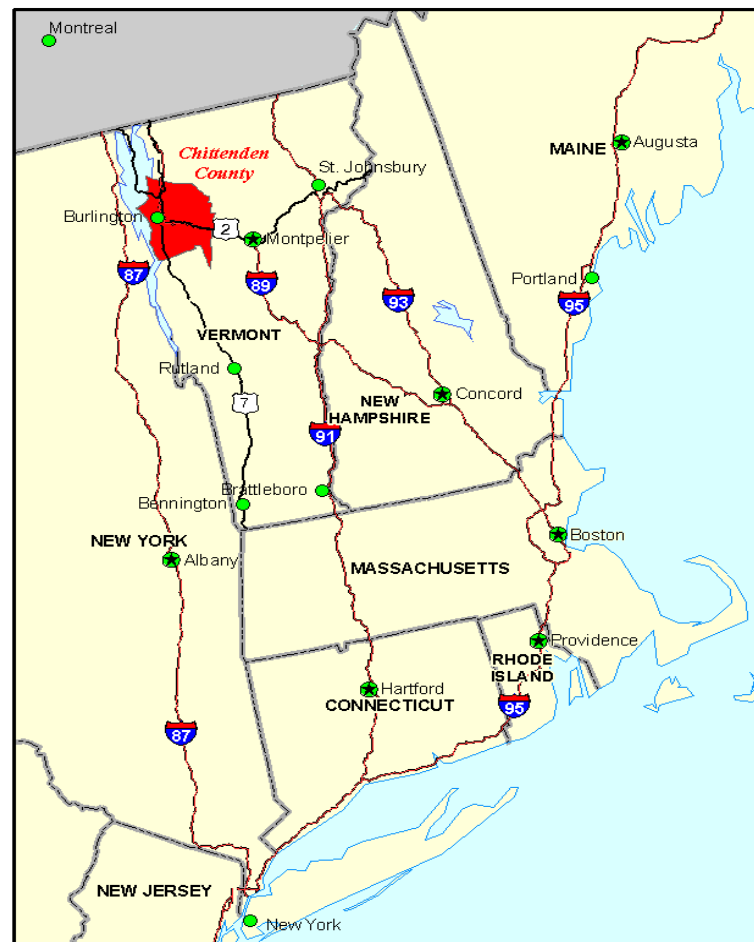
1. **Natural Systems** – Design and maintain a strategically planned and managed green infrastructure network composed of natural lands, working landscapes, and open spaces that conserve ecosystem values and functions, and provide associated benefits to our community.
2. **Social Community** – Promote the skills, resources, and assurances needed for all community members to participate in the workforce and in their family, civic and cultural lives, within and among their neighborhoods, and in the larger community.
3. **Economic Infrastructure** – Build the region’s capacity for shared and sustainable improvements in the economic well being of the community through support of both local and globally competitive initiatives.
4. **Built Environment** - Make public and private investments in the built environment to minimize environmental impact, maximize financial efficiency, optimize social equity and benefits, and improve public health.

1.6 Chittenden County Overview

Chittenden County is located in northwestern Vermont between Lake Champlain and the highest peaks of the Green Mountains (see Figure 1-1). The County’s nearly 350,000 total acres have a rich diversity of landscapes: forests, farms, waterbodies, small cities, suburban areas, and villages.

Founded in 1787, Chittenden County has about 150,000 residents living in 19 municipalities that range in size from 20 to almost 40,000 residents. The County is the heart of the Burlington – South Burlington Metropolitan Statistical Area (the economic engine of Vermont); home to the State's largest higher education institution, health care facility, and private sector employer; and nationally recognized as having an outstanding quality of life.

**Figure 1-1
LOCATION OF CHITTENDEN COUNTY, VERMONT**



1.7 Chittenden County History

Algonquin and Mohawk Native Americans, who used the region's waterways for transportation and the area for seasonal hunting, were struggling for control of the northern Lake Champlain area when Europeans began exploring and settling there in the 1600s. The Abanaki tribe inhabited the area during the European colonial period.

The French, based in what is now Canada, valued the region for its strategic waterways. During the Seven Years War in the 1760s, the French and their Native American allies used the region as a staging area for attacks on English colonial settlements in the Connecticut River Valley.¹⁻²

English colonials also disputed who should control the Lake Champlain region. The colonial governors of both New Hampshire and New York issued land grants for the area. New Hampshire issued grants creating the townships of Charlotte and Hinesburg in 1762 and Bolton, Burlington, Colchester, Essex, Huntington, Jericho, Milton, St. George, Shelburne, Underhill, Westford, and Williston in 1763.¹⁻³ A 1770 convention of settlers held in Bennington declared that the “Green Mountain Boys” would resist the enforcement of decisions by New York courts. New York retaliated by issuing the “Bloody Act,” providing for the summary execution of any apprehended Green Mountain Boy.

In 1772-73, Ira Allen and Remember Baker explored along the Winooski River and settled near the lower falls of the Winooski. At the same time, two men bearing New York grants settled on Shelburne Point. By the time of the outbreak of the American Revolution in 1776, about 40 families had settled in the area.

Conventions held in Windsor in January and June of 1777 declared Vermont to be a free and independent republic. At first, Vermont was divided into only two counties (Cumberland in the east and Bennington in the west). Rutland County was established in 1781, Addison County in 1785, and Chittenden County in 1787.¹⁻⁴

In 1783, families that had fled the area for safety during the American Revolution returned, along with many new settlers. When Vermont joined the United States in 1791, Chittenden County’s population had grown to almost 9,400 and by 1810 it was over 14,600. Over time, settlers cleared the forests for lumber and to create crop fields in the lowlands and pastures in the uplands.

From 1790 to 1814, 30 ships were built and launched in Burlington, including the world’s second commercial steamship, the “Vermont,” in 1808. The opening of the Erie Canal and the construction of the Champlain Canal in 1817 promoted closer commercial ties with New York and a decline in reliance on trade with Canada. In addition to the shipping of lumber, stone, and agricultural commodities, Lake Champlain’s commerce included tourism starting in the mid-1800s.

Railroad companies were started in 1843 to build lines along Lake Champlain and from Lake Champlain to the Connecticut River. Throughout the 1800s, the rail network in Vermont was expanded, so that by 1900, fewer than 100 towns in Vermont were without a rail depot.

The productive soils of the Midwest United States lured potential settlers from Vermont in the 1800s. Consequently, Chittenden County’s population growth slowed after 1810, so that the County had just under 18,200 people in 1860 and 39,600 in 1900. Sheep farming shifted to dairy farming through the latter half of the 1800s.

The Industrial Revolution that transformed the nation in the 1800s also transformed the County. By 1909, Burlington alone had 82 manufacturers employing almost 2,400 workers. The County’s manufacturers produced woolen goods, brush and broom fibers, maple syrup, small tools and

implements, printing, furniture, and electrical equipment. By 1929, manufacturing employed about 4,500 people in the County.

In November 1927, prolonged heavy rain combined with large-scale deforestation in northern Vermont resulted in catastrophic flooding of the Winooski River and its tributaries. The 1929 stock market crash and the Great Depression of the 1930s demonstrated the region's economic ties to the nation, leaving many workers idle and stalling the region's growth for a decade.

America's entry into World War II increased demand for many of the region's commodities and the County generally prospered during the 1940s. By 1950, two carriers provided regular commercial airline service at the Burlington airport, which had been constructed in 1930.

However, by the mid-1950s the region again was experiencing major unemployment, due in part to the continued shifting of textile jobs from New England to the South and the decline in defense production at the end of the Korean Conflict. The textile industry's employment alone dropped from about 2,000 in 1951 to less than 200 in 1958, with the mills closing completely in 1965. Although the majority of the County's land area was occupied by farms in the 1960s, farming and forestry employed less than six percent of the workforce.

New types of employers began to dominate the region's economy in the 1960s. The University of Vermont, St. Michael's College, Champlain College, and other institutions of higher education expanded enrollments. Mary Fletcher and Bishop DeGoesbriand Hospitals merged. IBM, which began production in the County in 1957, became the State's largest private-sector employer.

Chittenden County, historically more urbanized than other parts of Vermont, began to grow in the 1960s and 1970s in ways that accentuated its distinctiveness. In the mid-1960s, completion of Interstate 89 provided for increased auto and truck access within the County, within the emerging multi-county Northwest Vermont region, 1-5 and between the region and other parts of Vermont and the United States. During this period, the County enjoyed lower unemployment and higher wages than the rest of Vermont. Prosperity spawned new housing and nonresidential development, increasingly in the suburban communities around the County's historic urban core. More non-native Vermonters chose to relocate here because of the region's opportunities and amenities.

To better manage growth, the State enacted Act 200 and Act 250 and authorized municipalities to adopt a variety of land-use controls. New regional special-purpose entities also were established (CCRPC – 1966, the Champlain Water District – 1971, the Winooski Valley Park District – 1972, the Chittenden County Transit Authority – 1973, the Vermont Housing Finance Agency – 1974, the Vermont Industrial Development Authority – 1974, the Chittenden County Metropolitan Planning Organization – 1983, and the Chittenden Solid Waste District – 1987).

History's basic lesson is that times change. Over the years, the people of Chittenden County have used the County's natural resources in different ways, labored at different kinds of jobs, been guided by different social and political values, and developed different types of communities. The future promises to bring new opportunities and challenges. This Regional Plan, the plans of the

County's 19 municipalities, and the plans of the region's organizations and businesses express our collective commitment to realizing a bright future for Chittenden County.

Regional Analysis

2.0 INTRODUCTION

This Chapter describes the goals that have been developed through ECOS and the indicator data that shows us how we are doing relative to achieving our goals. Key issues/trends/insights are summarized for each of 16 topics (can we get down to 15 goals?). At the end of this Chapter is a summary of the conclusions drawn from the data.

This Chapter and these topics are grouped according to the four Broad Goals (see Section 1.5) as follows and as shown in more detail on the following pages:

2.1 Demographics

Natural Systems

2.2 Ecological Systems (Habitats, Water Quality, Air Quality)

2.3 Scenic and Recreational Resources

2.4 Working Lands

Social Community

2.5 Education, Knowledge and Skills (Early Childhood, K-12, Educational Attainment, Career Training)

2.6 Health (Healthy Behaviors, Environmental Factors, Access to Quality Health Services)

2.7 Public Safety and Criminal Justice

2.8 Social Connectedness

2.9 Civic Engagement and Governance

Economic Infrastructure

2.10 Economy (Employment, Employer Clusters, Entrepreneurship, Economic Diversity, Workplace Diversity)

2.11 Household Financial Security

Built Environment

2.12 Land Use

2.13 Housing

2.14 Transportation

2.15 Infrastructure (Public Water Supply, Public Wastewater, Stormwater, Communications, Waste Reduction)

2.16 Energy (Consumption, Renewable and Distributed Energy, Energy Production Transmission & Distribution)

2.1 DEMOGRAPHICS

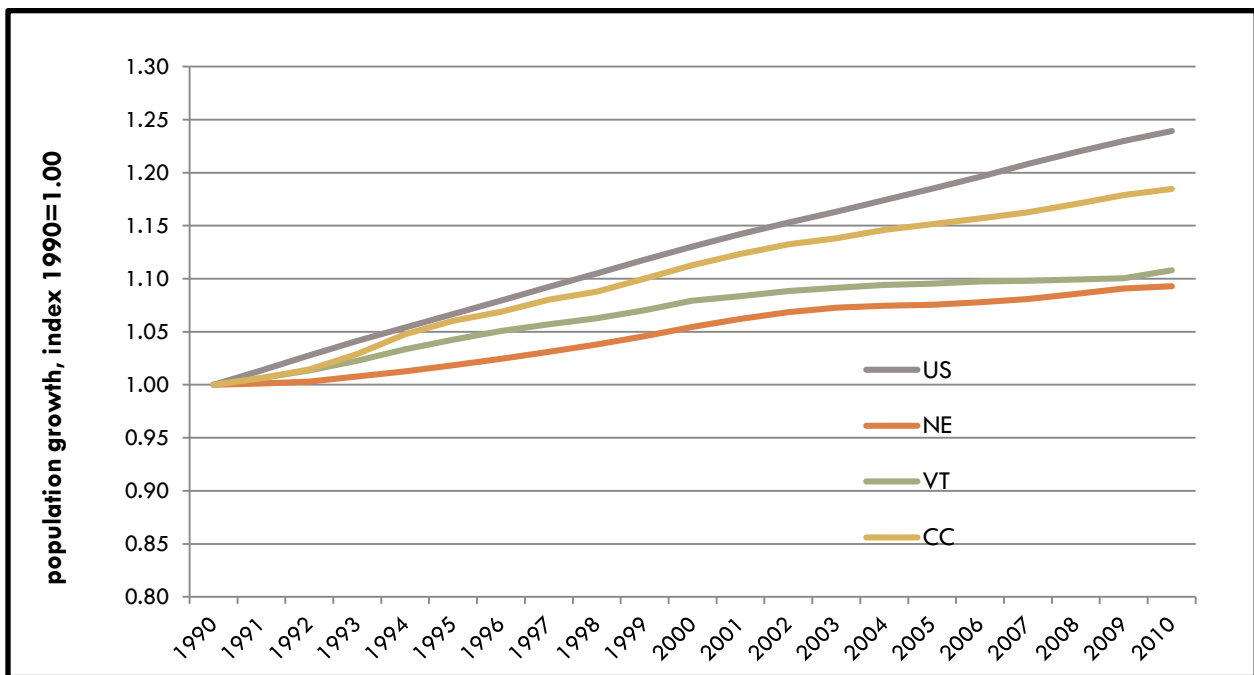
INTRODUCTION: Information about the people in Chittenden County helps us to understand the nature of our community and how we are changing. It can help decision makers anticipate potential pressures on the wider social, economic and physical environments. Factors such as population growth, age, ethnicity, migration and household makeup are often key determinants of conditions across a whole range of issues affecting quality of life.

Population change in Chittenden County

	1960	1970	1980	1990	2000	2010	2020	2035
Population	74,425	99,131	115,534	131,761	146,571	156,545	174,348	205,445

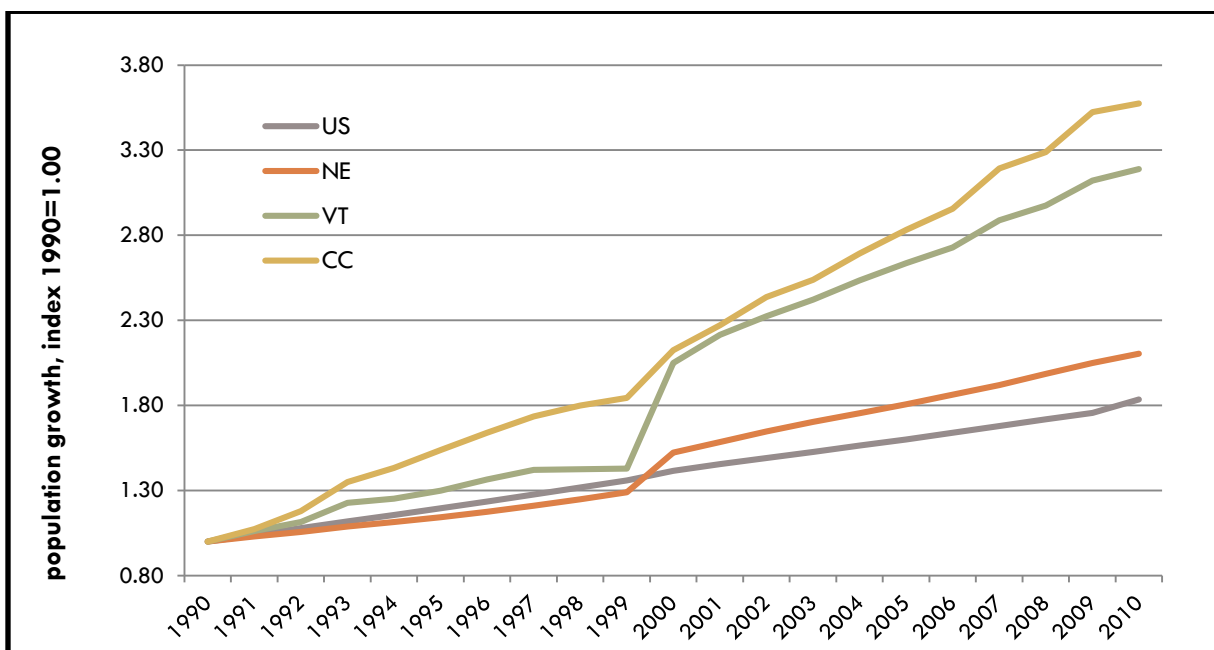
Sources: US Census Bureau. 2011 Woods and Poole Forecast for Chittenden County 2005-2035.

- **Population Growth Rate Total** - The Chittenden County population growth rate has surpassed both VT and New England: 1990-2010



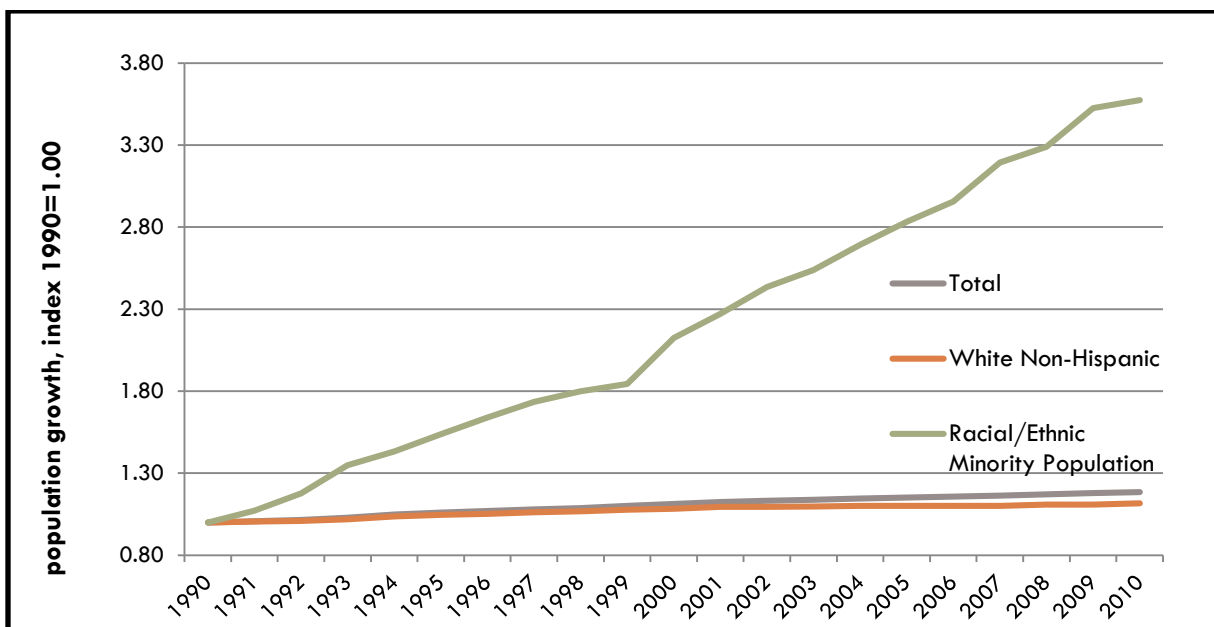
Source: U.S. Bureau of the Census

- **Population Growth Rate, Minority Population-** The Chittenden County minority population growth rate has surpassed VT, New England, and the US: 1990-2010



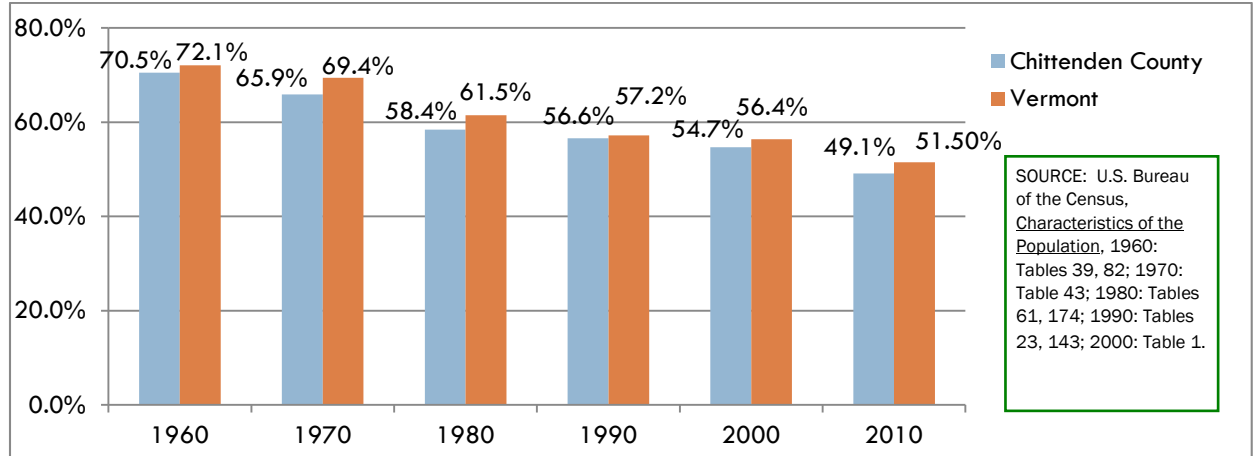
Source: U.S. Bureau of the Census

➤ Population Growth Rate, Chittenden County, 1990-2010



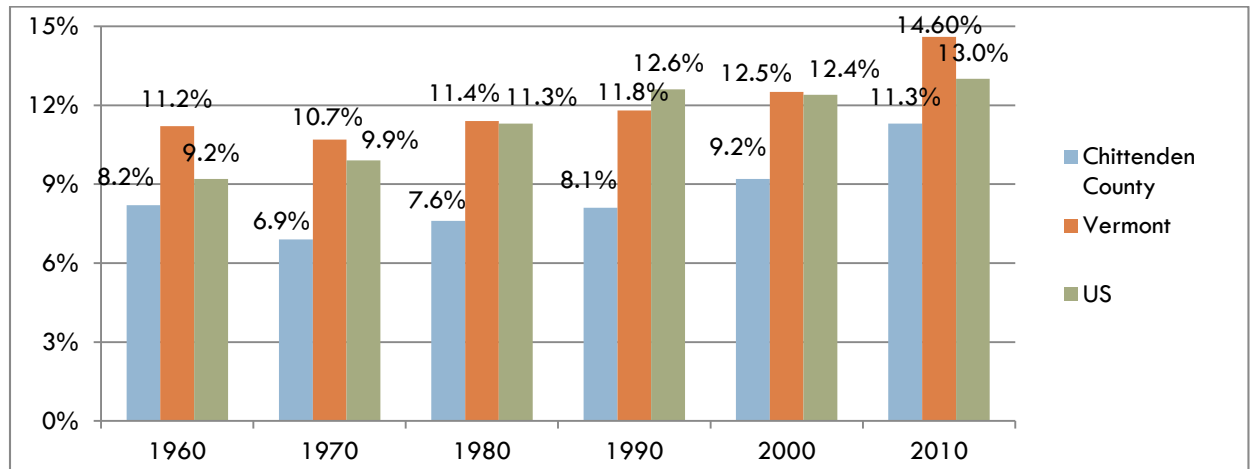
Source: US Bureau of the Census

➤ **Percent of Residents Born in Vermont in Chittenden County and Vermont, 1960 – 2010**



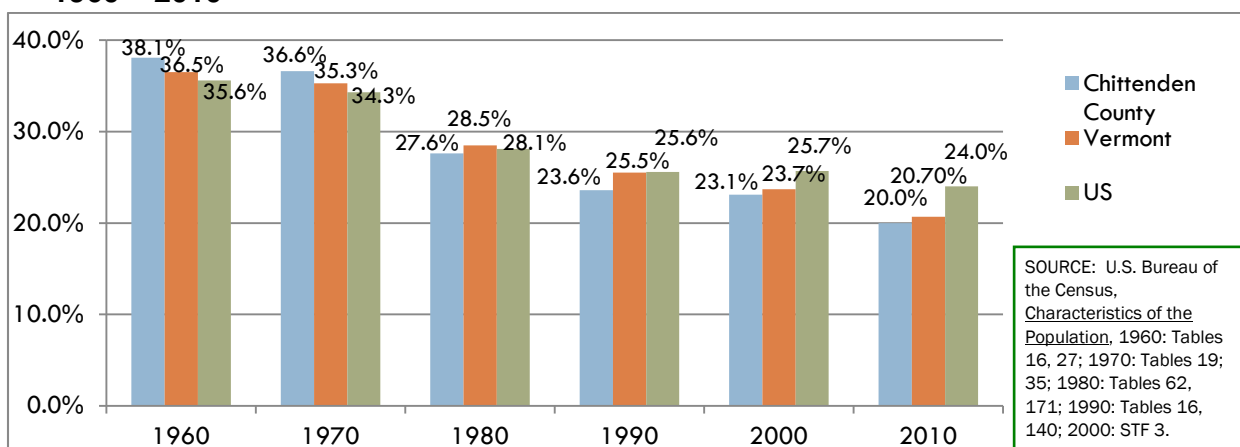
■ **Age**

➤ **Percent of Residents Age 65+ in Chittenden County, Vermont, and the US, 1960 – 2010**

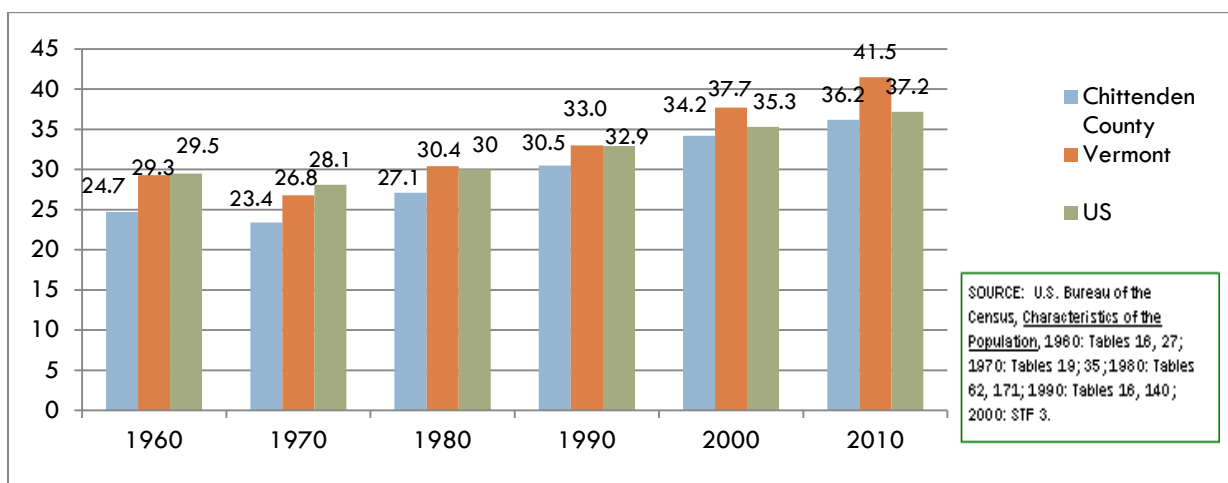


Source: US Bureau of the Census

➤ **Percent of Residents Under Age 18 in Chittenden County, Vermont, and the US 1960 – 2010**



➤ **Median Age in Chittenden County, Vermont, and the US 1960 – 2010**

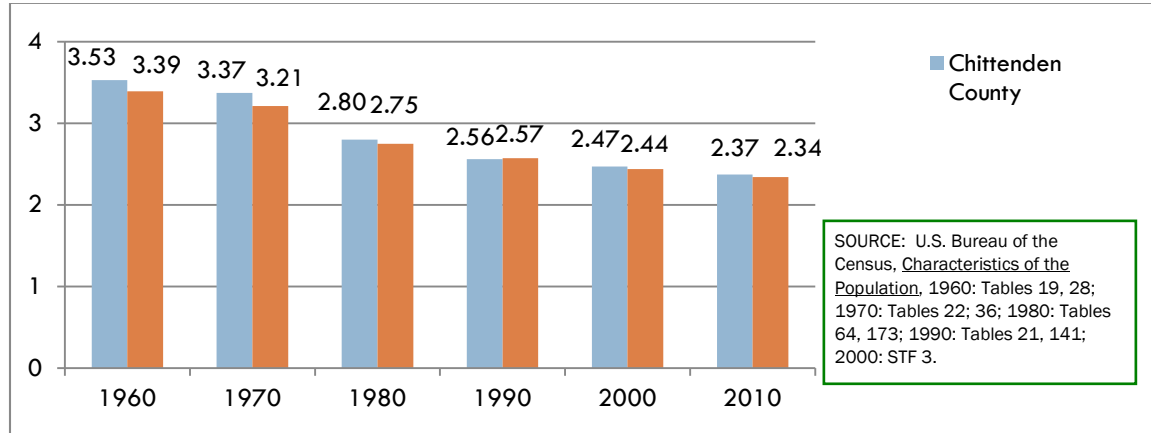


➤ **Share of non-white K-12 public school enrollment by Supervisory Union district**

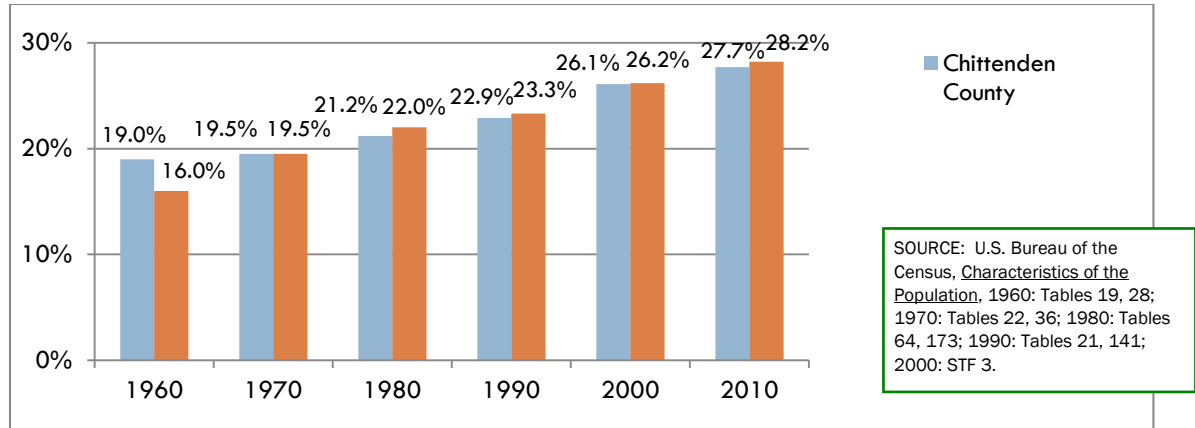
Consider using Percent of students enrolled in school by non-white and Hispanic by town(ACS) or Test score gaps between students eligible for free and reduced lunch and those not eligible by Supervisory Union (DOE and in AHS Community Profile Proposal)

- Families and households

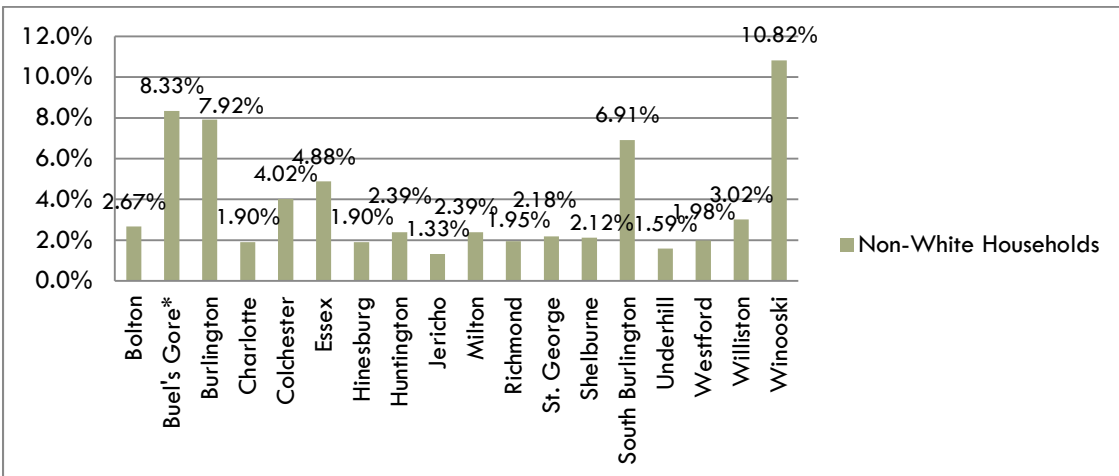
➤ **Average Household Size in Chittenden County and Vermont, 1960 – 2010**



➤ **Percentages of Total Households that are Single Person Households in Chittenden County and Vermont, 1960 – 2010**



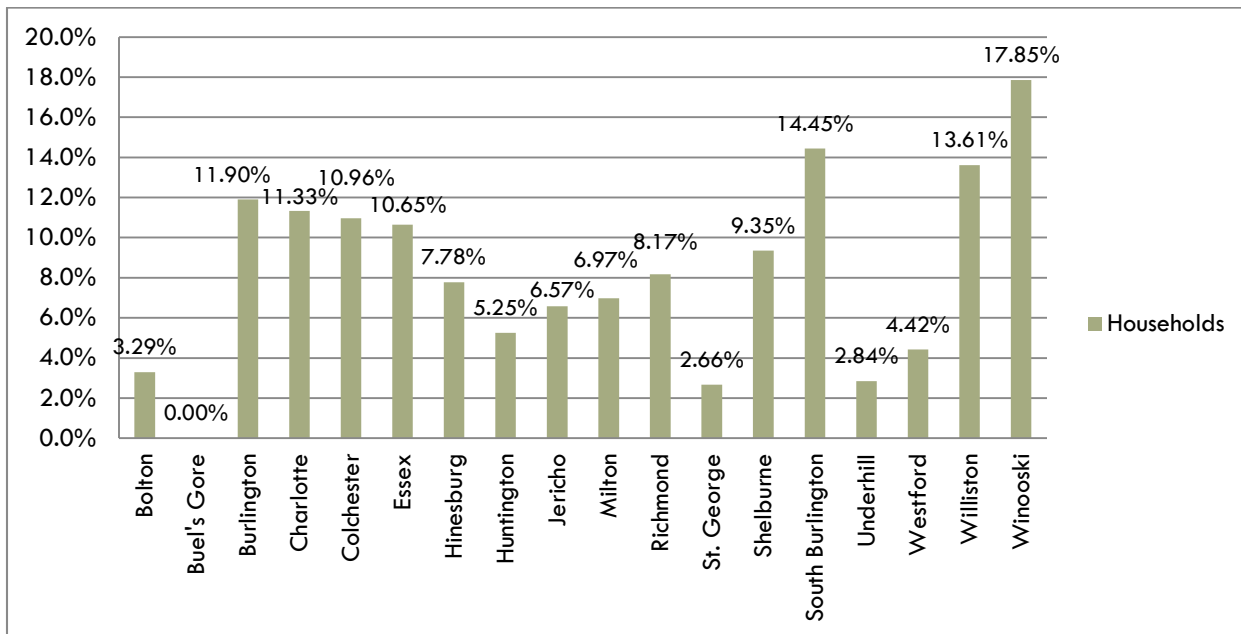
➤ **Percentage of non-white households in each municipality**



Source: 2010 Census

*This percentage is high because there are very few households in Buels Gore.

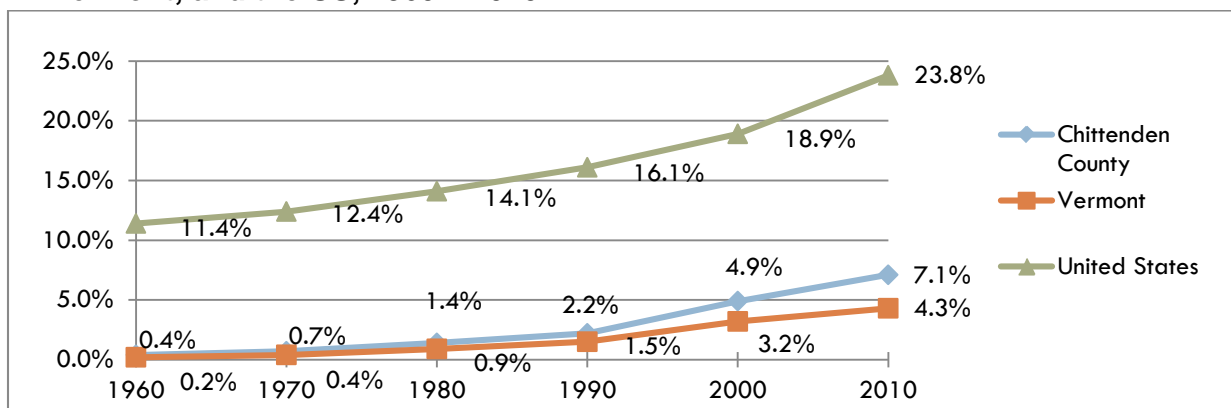
➤ **Percentage of households in each municipality where language other than English is spoken**



Source: 2006-2010 American Community Survey

▪ **Race/Ethnicity**

➤ **Percent of Residents who are Non-White or Hispanic in Chittenden County, Vermont, and the US, 1960 – 2010**



➤ **Dissimilarity Index by County.** (Source:

http://www.dhca.state.vt.us/VCDP/Vermont_AI_Draft_2_10_12.pdf) **The distribution of racial or ethnic groups across a geographic area can be analyzed using an index of dissimilarity.** This method allows for comparisons between subpopulations, indicating how much one group is spatially separated from another within a community. The index of dissimilarity is rated on a scale from 0 to 100, in which a score of 0 corresponds to perfect integration and a score of 100 represents total segregation.¹ The index is typically interpreted as the percentage of the minority population that would have to move in order for a community or neighborhood to achieve full integration. A dissimilarity index of less than 30 indicates a low degree of segregation, while values between 30 and 60 indicate moderate segregation, and values above 60 indicate high segregation. Dissimilarity indices in the following table show that the State, including the City of Burlington, has low to moderate levels of segregation between Whites and minority populations. In addition to a White/Black index of 38.8, the State of Vermont has a White/Asian index of 41.8, which suggests that both groups are moderately segregated throughout the State. Additionally, the State has a White/American Indian Alaska Native (AIAN) index of 27.7, a White/multi-race index of 16.6, and a White/Hispanic index of 18.5. These numbers indicate that these subpopulations are more integrated across the State than Blacks and Asians.

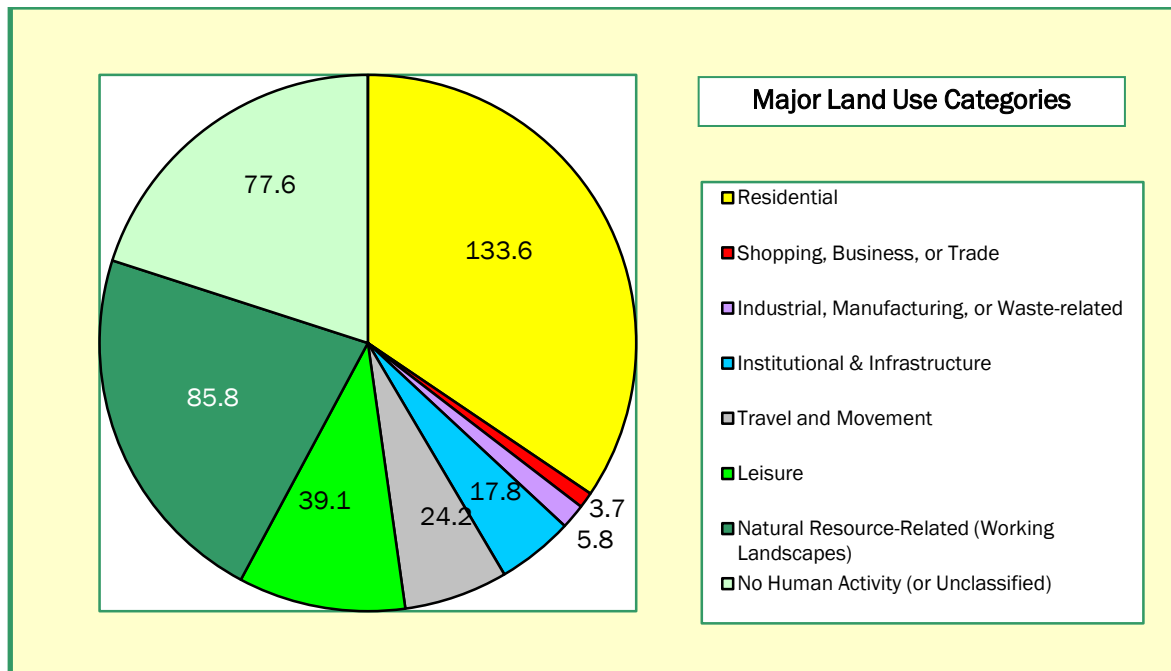
Chittenden County	Minority Population	White Population	Total Population	Dissimilarity Index
Black	34,44	35,078	36,821	42.2
Hispanic	3,087	150,426	156,545	18.1
Asian	4,447	150,426	156,545	30.4

▪ **Disabilities**

➤ **Disability status of Chittenden County residents (relative to VT and US)**

About 14,000 people in Chittenden County were identified as having a disability in 2010. Income of people with disabilities is far below that of people without disabilities, reducing their ability to afford housing and further limiting their housing choices.

PORTIONS OF THE COUNTY IN MAJOR LAND-USE CATEGORIES, 2008
(1,000s of Acres, Rounded to Nearest 100s)



Source: CCRPC, Land Based Classification System, 2008

NATURAL SYSTEMS

Broad Goal: Design and maintain a strategically planned and managed green infrastructure network composed of natural areas, working lands, wildlife habitat, scenic views and air quality that help to conserve ecosystem values and functions, and provide associated benefits to our community.

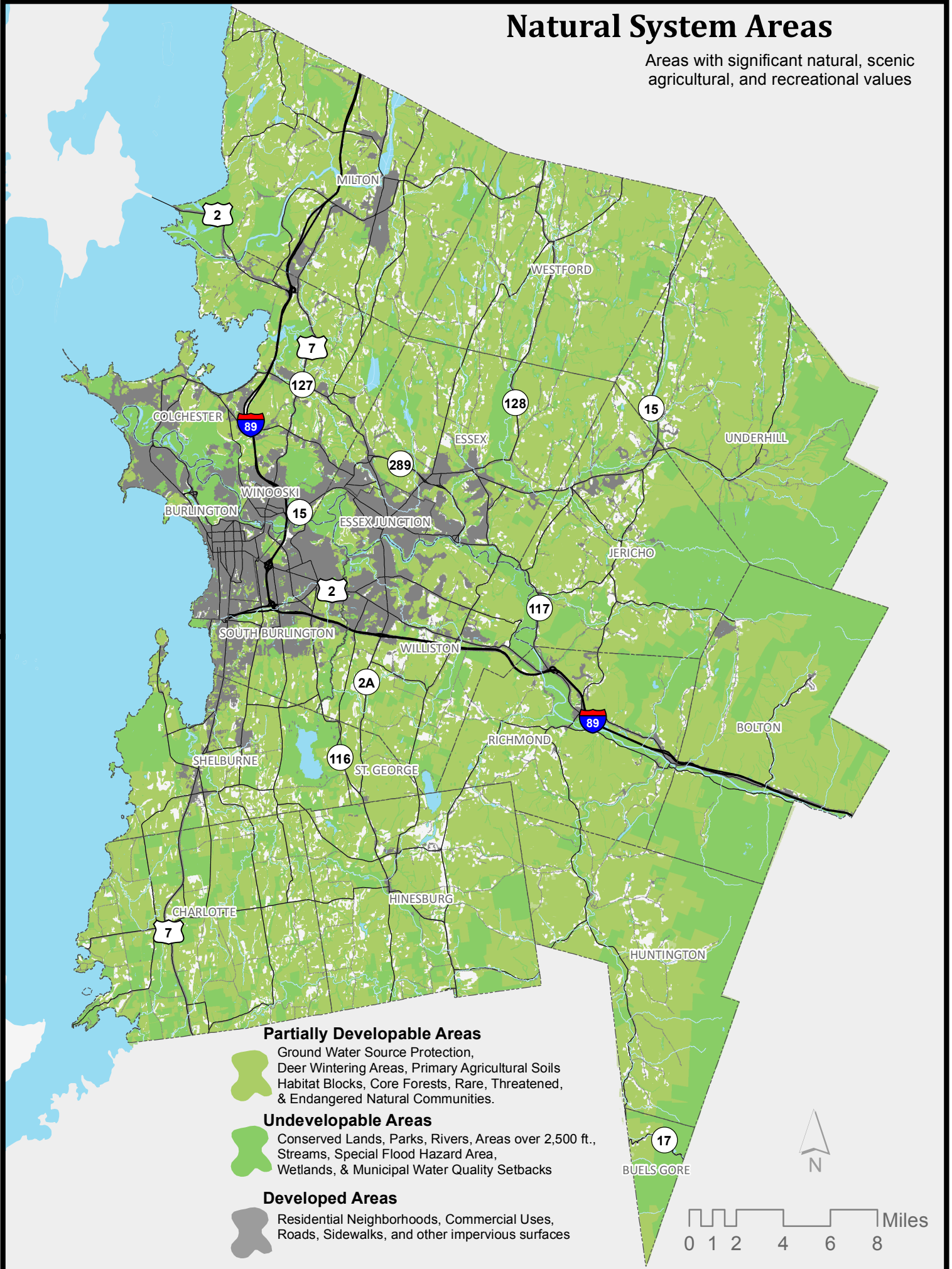
INTRODUCTION: A sustainable community preserves natural systems because they offer a richness that nurtures the human spirit as well as protects soil, air and water quality. Healthy landscapes are necessary to sustain the complex myriad of plant and animal species that share our habitat. We are dependent on the surrounding landscapes for many resources such as food, water and fuel; for recreational opportunities and aesthetic values; and for vital natural processes such as water retention and recycling, air cleansing, and nutrient cycling. Preservation of our natural systems can help guide new growth into existing developed areas. In addition, a network of healthy natural systems and green infrastructure can make very important contributions to the economic prosperity of the region.

Due to our topography and historic development patterns the eastern side of Chittenden County contains large intact Habitat Blocks, while the western side does not; however many important habitats exist throughout the entire County. Therefore, this plan calls for efforts to maintain the natural systems throughout the County. The *Conserving Vermont's Natural Heritage Guide* (Vermont Fish and Wildlife Department and the Agency of Natural Resources, 2004) identifies the following seven mechanisms by which current development patterns degrade Vermont's natural heritage: 1. direct loss of diversity; 2. destruction of habitat; 3. habitat fragmentation; 4. disruption of movement, migration, and behavior; 5. introduction of invasive exotic species; 6. degradation of water quality and aquatic habitat; and 7. loss of public appreciation for the environment. Methods to combat or mitigate these mechanisms are crucial to the sustainability of the County as we continue to grow.

This Plan uses an ecological systems thinking approach: a multidisciplinary, holistic approach to understanding our natural and built environment, in which we look at the complex relationships between living elements (such as vegetation and soil organisms) and nonliving elements (such as water and air) of a particular area to understand the whole ecosystem. In that same way, we must look beyond our municipal, county and state political boundaries to understand the impacts, both positive and negative, we have on each other. We need to collaborate with each other and adjust our actions in a measured fashion in support of ecosystem health.

Natural System Areas

Areas with significant natural, scenic agricultural, and recreational values



2.2 Ecological Systems

Habitats Goal: Conserve, protect and improve the health of native plant, fish, and wildlife habitats.

Key Issues/Trends/Insights

- Chittenden County continues to see forest fragmentation and loss of forest habitat largely due to mounting development pressures. Increasing incidences of land parcelization and subsequent forest conversion, lack of consistent subdivision regulations responsive to wildlife habitat concerns, and construction of transportation infrastructure including roads and trails continue to adversely impact forest integrity. In addition, acid deposition from air pollution, migration of invasive species including destructive insect species, and climate change continues to threaten native forest plant and animal habitat.
- The quality of our land is dependent upon the quality of our water bodies and vice versa. Vermont water bodies continue to face mounting pollution pressures from increased development and agricultural activities. If these trends continue, unabated, the range of beneficial uses for select water bodies will be further limited. Further impairments could cumulatively have significant consequences for the health, stability and diversity of Vermont's aquatic life, as polluted water bodies become less hospitable to native species. Changes in species composition will have broader implications for the native food chain for both aquatic and terrestrial species.
- 53% of Chittenden County is forested based on USGS National land cover data. Forest cover in Chittenden County has decreased by 4,666 acres or 1.17% between 1992 and 2006 based on USGS National land cover data.
- In 2001, CCRPC prepared a study of the County's forests. That study documented the portions of the County with various types of forest cover, based on the most recent land-cover analysis of the entire County then available (prepared in 1993). In 1993, approximately one-third of the County was in "core forest" (forest that is at least 100 meters from a zone of human disturbance). However, this represented a decrease of more than 32,600 acres (22 percent) since 1978.
- Only 5% of our road miles are given a score of "good" for wildlife linkages (See Natural Systems, Landscape Level map).
- There is a disconnect between Municipal Comprehensive Plans that call for protection of natural systems, and the Zoning Regulations that lack protection of these resources. The JAM Golf decision from South Burlington is result of this disconnect.

Key Indicators

- **Core Forests:** 28% of Chittenden County has been identified as core forest (forest that is located more than 100 meters from a built structure, road, driveway, or anthropogenic forest edge boundary; and includes ideal habitat for wildlife species that are particularly sensitive to human disturbance, such as bear or moose); 34% of core forests are on conserved lands. Between 1978 and 1993 Chittenden County lost 37,307 acres or 25% of its core forests. This data is from a study that CCRPC conducted in 2001 based on 1993 land cover analysis. This analysis will not be repeated; however, the State is working on a Habitat Block data layer that will be used going forward (See Natural Systems Landscape Level Map with Linkage Scores). OR ???% of Land in Chittenden County is Conserved, with historic trends if available.

- **Wetlands:** Mapped wetlands in Chittenden County decreased by approximately 4,954 acres or 1.25% from 1992 to 2006 (USGS National land cover data).
- **Local Zoning Lags behind Plans. Of the 19 zoning bylaws reviewed for Chittenden County:**

14 (73.3%) include specific conditional use standards

4 of the 14 (28.6%) mention wildlife habitat

8 of the 14 (57.1%) mention natural resources

15 (78.9%) include site plan requirements

3 of the 15 (20%) mention wildlife habitat

10 of the 15 (66.7%) mention natural resources

10 (52.6%) include some sort of conservation district

Within these 10 districts, 5 (50%) mention wildlife habitat

9 (47.4%) include riparian buffers.

4 of the 9 explicitly mention wildlife

3 (15.8%) include a forest reserve district

2 of the 3 districts mention wildlife habitat

(0%) of municipalities have a specific definition of “wildlife habitat” in their zoning bylaws

(13.3%) of municipalities have a specific definition of “wildlife habitat” in their subdivision regulations.

(5.2%) municipality includes a natural resources overlay district

(0%) municipalities include a wildlife habitat overlay district

Data source: Excerpt from *Wildlife Considerations in Local Planning: A Decade of Progress in Vermont*, Vermont Natural Resources Council. This data should be reviewed and understood in the context of the larger study. This document is available from VNRC, and is currently posted at <http://www.vnrc.org/forest/hot-issues/report-release-wildlife-considerations-in-local-planning/>.

For Additional Information and Actions

- See Natural Systems Analysis Report, located in document appendix
- See Collective Impact Strategy X,Y,Z for implementation steps

Water Quality Goal: Conserve, protect and improve water quality and quantity in Chittenden County watersheds.

Key Issues/Trends/Insights

- Vermont water bodies continue to face mounting pollution pressures from increased development and agricultural activities. Cumulative impacts from disappearing wetlands, channelization of streams and rivers, reduction and alteration of natural floodplains, increasing impervious surfaces, steady high pollutant levels and increasing nonpoint pollution sources, nutrient enrichment and sedimentation, reduction and elimination of vegetative buffers and climate change all threaten to further impair Vermont's waterways and aquatic life support conditions. If these trends continue the range of beneficial uses for select water bodies will be further limited.
- The *State of the Lake: An Ecosystem Indicators Report*, Lake Champlain Basin Program, 2008 reports:
 - Average phosphorus levels have remained constant in recent years in Lake Champlain but are still very high, and are deteriorating water quality and aquatic ecosystems in some areas (e.g. Mallets Bay).
 - Non point phosphorus loading from streams to the main section of Lake Champlain are recorded at 139 metric tons (2002-2007) far above the target of 51.3 metric tons indicating unsustainable land use practices, planning goals and regulations. While most of the watersheds in Chittenden County begin further inland, outside of Chittenden County, the need to decrease pollutants into these streams is imperative in Chittenden County as well.
 - Beach closure days, being an indicator of lake health, have been low overall but high in some areas (e.g. Mallets Bay).
- Water resources in Chittenden County are (Source: Developed for the ECOS Natural Resources Analysis Report, Landworks conducted an analysis of CCRPC's GIS datasets):
 - 30.64 miles or 24% of shorelines of named water bodies/lakes/ponds in Chittenden County are conserved (including Lake Champlain).
 - 280.63 miles or 18% of rivers/streams in Chittenden County flow through conserved land.
 - 382.21 miles or 25% of rivers/streams in Chittenden County flow through cultivated land.
 - 813.12 miles or 53% of rivers/streams in Chittenden County flow through forested land.
 - 10.89 miles or 18% of impaired streams flow through conserved land.
- Most of our surface water bodies are protected through flood hazard regulations and surface water setbacks in municipal zoning regulations however agricultural operations are exempt from local review; and these regulations do little to counteract the impacts of existing developments.
- Nonpoint pollution sources are mainly a result of stormwater. When precipitation falls to the earth and accumulates more rapidly than it can be absorbed into the ground, it flows across the earth's surface and becomes part of the surface-water system (streams, rivers, ponds, and lakes). Stormwater runoff occurs when the intensity and duration of rainfall and snowmelt exceed the earth's capacity to absorb water. That is, runoff results from a combination of the amount of precipitation and the character of groundcover. Because there is little we can do to alter the frequency of storms, we attempt to control stormwater by managing the character of groundcover and by intercepting and controlling runoff. Because

impervious and hardened surfaces (such as rooftops, streets, and parking lots) tend to prevent water from percolating into the ground, it is important to limit impervious surfaces by concentrating it in the areas planned for growth. Stormwater management is addressed under the Other Infrastructure topic under the Built Environment Broad Goal.

- As of 2005, 22,120 residents of Chittenden County (almost 15% of the population) rely on groundwater sources for their drinking water (Source: USGS Water Use Compilation – completed every 5 years). Groundwater resources are threatened by failing septic systems and petroleum spills/leaks.

Key Indicators

- **Number and Length of Impaired Rivers/Streams** - 60.13 miles or 4% of all streams miles within Chittenden County are considered impaired (Source: Vermont Dept. of Environmental Conservation, 303d List Part A, July 2008; USGS, Vermont Hydrography Dataset, 2001-2004). See Impaired Waterways Map. There also are waterbodies in Chittenden County that are on other parts of the 303d List:
 Part B – Impaired, No TMDL Required because Attainment Expected in a Reasonable Time: Burlington Bay, Muddy Brook and Unnamed Tributary of Winooski River;
 Part C – Stressed and in Need of Further Assessment to Confirm If Impaired: Lewis Creek, Indian Brook, Malletts Creek, direct drainages to Burlington Bay, Lake Champlain Main Section, Huntington River, Tributary #8, of Sunderland Brook, Unnamed tributary to Sunderland Brook, and Winooski River;
 Part D – Completed TMDLs: Lake Champlain (Main Section, Northeast Arm), Shelburne Bay, Potash Brook;
 Part E – Altered by Exotic Species: Lake Champlain (Otter Creek Section, Northeast Arm, Main Section), Arrowhead Mountain Lake, Burlington Bay, Lake Iroquois, Mallets Bay, and Shelburne Bay;
 Part F – Altered by Flow Regulation (e.g., Dams): Arrowhead Mountain Lake, Joiner Brook, Lower Lamoille River, and Lower Winooski below Essex #18 dam.
- **Number of Beach Closures for Bacteria.** This has been suggested in replace of Burlington Bay, Mallet's Bay and Inland Sea Annual Mean Total Phosphorus Concentrations, 1991-2011, compared with the applicable criterion in the Vermont Water Quality Standards because those concentrations are highly dependent on portions of the watersheds that exist outside of Chittenden County.
- **Percent of Impervious Surface by Watershed.** Source: ANR is developing a statewide impervious layer. This will not be as accurate as the Town level data that Burlington and South Burlington have; but it will be valuable at the watershed scale. They are intending to get this done by the Summer 2012. Ryan Knox, IT/GIS Dept.

For Additional Information and Actions

- See Natural Systems Analysis Report, located in document appendix
- See Collective Impact Strategy X,Y,Z for implementation steps

Air Quality Goal: Conserve, protect and improve the air quality by reducing emissions of Federal and State-identified air pollutants and greenhouse gases.

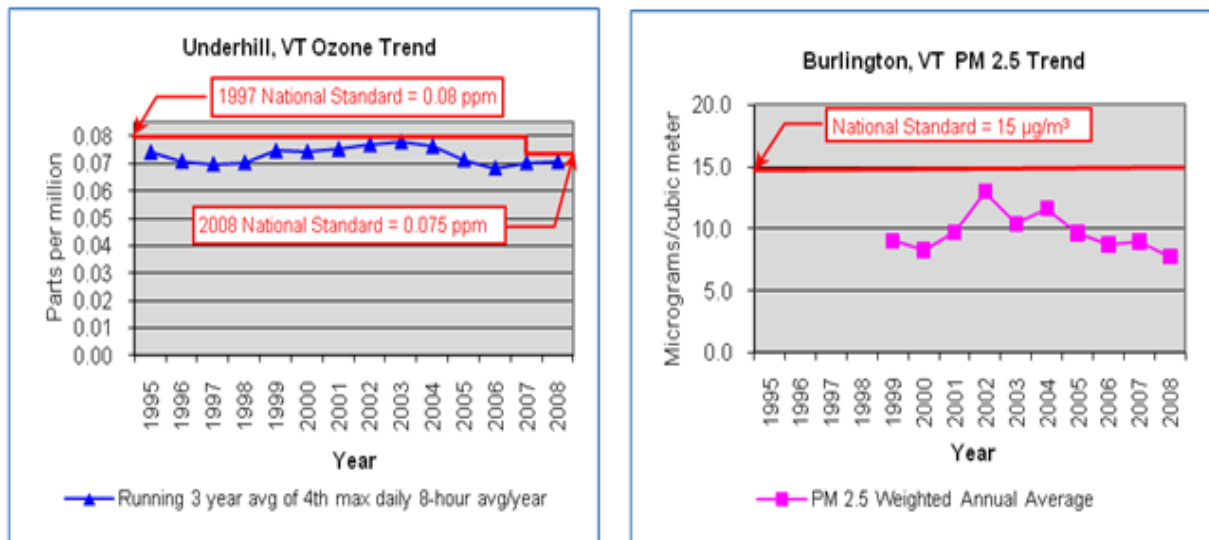
Key Issues/Trends/Insights

- Air quality is fundamental to a healthy natural and human environment. Outdoor air pollution in significant concentrations can raise aesthetic and nuisance issues such as impairment of scenic visibility, unpleasant smoke, or odors. Unless abated, it can also pose human health problems, especially for more sensitive populations like children, asthma sufferers, and the elderly.
- While Chittenden County's air quality meets current National Ambient Air Quality Standards (NAAQS) maximum acceptable pollutant levels, ground-level ozone levels are close to the current standard and fine particulate pollution (PM_{2.5}) has approached the standard in recent years. If the NAAQS are revised to be more stringent - or air pollutant levels increase - so that we exceed the NAAQS, additional and costly environmental regulations will apply to our region.
- Greenhouse gas emissions contribute to global climate change, which is already impacting our region. Our climate has changed over the past 50 years and scientists project that these changes will continue and accelerate this century. Temperatures are expected to continue to increase. Temperature increases affect water quality, public health, infrastructure, and the economy.
- Greenhouse gas emissions (carbon dioxide, methane, and nitrous oxide) from transportation, building energy use, and other sources are continuing to increase in Chittenden County.

DATA TABLE:

Key Indicators

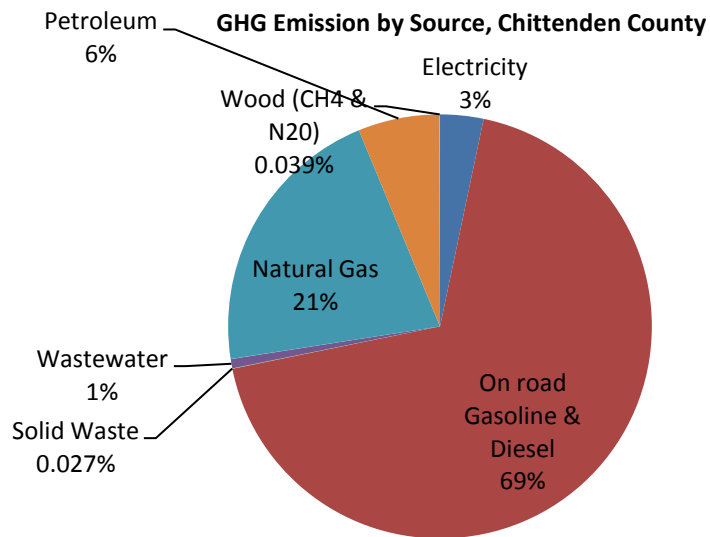
**Figure 3-1
OZONE AND FINE PARTICULATE MATTER TRENDS IN CHITTENDEN COUNTY**



Source: US EPA, Annual Report on Air Quality in New England



Source: Draft 2010 Chittenden County GHG Emissions, CCRPC



For More Information and Actions

- See Natural Systems Analysis Report, [Climate Action Plan and Greenhouse Gas Emissions Study](#), located in document appendix
- See Collective Impact Strategy X,Y,Z for implementation steps

2.3 Scenic and Recreational Resources

Scenic and Recreational Resources Goal: Conserve, protect and improve valued scenic and recreational resources and opportunities.

Key Issues/Trends/Insights

- Scenic and recreational resources give residents a place to breathe, relax, play, hold community gatherings and learn about nature, conservation values and our heritage. They provide important ecological functions including wildlife habitat, and water and air quality protection. In addition, these resources house our natural and historic heritage including scenic vistas. Chittenden County's abundant water resources, varied terrain, extensive natural areas, and scenic rural areas provide a rich foundation for recreation in all seasons. These natural resources are supplemented by facilities supporting a wide variety of indoor and outdoor recreation activities ([see recreation maps](#)). An extensive system of shared-use paths, on-road bike lanes, and off-road trails interconnect the County's recreational facilities and areas ([see recreation maps](#)).
- As we work towards reinforcing VT's historic settlement pattern of compact hamlets, villages and urban centers, maintaining and improving recreational access in Chittenden County is important for our quality of life. *Conserving Vermont's Natural Heritage*, Vermont Fish and Wildlife Department and the Agency of Natural Resources, 2004 identifies loss of public appreciation for the environment as one of seven mechanisms by which current development patterns degrade Vermont's natural heritage. Essentially if we lose natural resources and people can't experience the benefits first hand, they will lose appreciation for them.
- Scenic resources represent an important element of the region's landscape and contribute directly to sense of place, quality of life and economic vitality through tourism and by attracting new residents and businesses. The scenic economy is one part of the region's overall attraction and generates significant local revenues. Locations with scenic beauty are also often places that display high values for ecological systems and intact landscapes. Thus such lands may be more sensitive and more vulnerable when and if development changes are proposed.
- We cherish our mountain, field and lake vistas - yet these are places where new subdivisions, energy development and second homes are often sited. Ironically, scenic resources are often undervalued and unprotected, although when projects are proposed that might impact or alter vistas and scenery there is often strident and vocal opposition to change, even if a project is proposed for lands under private ownership. This paradox needs to be reconciled if, for example, the region continues to develop new infrastructure for energy generation and transmission, or if communities want to effectively balance scenic resource protection with growth and land based economic development.
- There is low compatibility between municipal plan recommendations for natural and scenic resources and the implementation of those recommendations through zoning bylaws and subdivision regulation.

Key Indicators

- **Percent of Chittenden County land area that includes scenic and recreational resources that are open to the public.** Source: Acres of private and public conserved land open to the public from the UVM SAL Conserved Land Database; and CCRPC's outdoor and indoor recreational facilities data. This data should be mapped and the percentage should be identified. **Technically the scenic resources aren't going to be mapped unless they are a conserved land, park, or rec facility.**
- **Local Zoning Lags behind Plans** (Source: For the ECOS Natural Resources Analysis Report, Landworks conducted an analysis of Municipal Zoning Regulations and found):
 - 16% of towns provide specific standards and guidelines for protecting identified scenic resources.
 - 68% of towns provide general recommendations for protecting scenic resources (i.e. views and landscapes along scenic roads should be protected).
 - 16% of towns reference scenic resources but provide no goals, standards, guidelines, or recommendations (i.e. scenic views are important).
 - 57% of scenic resources identified are of roads or views from roads (see Table 3).
 - The majority (74%) of towns reference scenic resources in relation to their value as open space (see Table 4).
 - 42% of towns recognize that woodlands provide scenic as well as ecological values.
 - About 40% of towns consider historic structures and settlement patterns a scenic resource.
 - 21% of towns have a scenic overlay/preservation district.

For Additional Information and Actions

- See Natural Systems Analysis Report, located in document appendix
- See Collective Impact Strategy X,Y,Z for implementation steps

2.4 Working Lands (Extraction Resources Included)

Working Lands Goal: Conserve, protect and improve the working farms, forests and earth resources (including local food, energy production and extraction).

Key Issues/Trends/Insights

- A truly sustainable society has the ability to produce enough food to support its local population in a way that does not reduce the fertility of the land. Local food production is preferred since the transportation to import food consumes tremendous amounts of energy and generates pollution. When food is imported from far-away places, nutrient value is reduced during the transport time. Local farming is part of a self-reliant and diverse economy, making a region less vulnerable to market crises. More local farmland means less developed land, fewer impervious surfaces, and thus a greater presence of the natural ecosystem's features and functions.
- Forest fragmentation and increased parcelization have meant that the number of parcels has gone up, while their size has gone down, diminishing their economic viability and the ecological services they provide. This has far reaching consequences for the future of Vermont's local, and potentially tourism, economies.
 - Working landscapes (farming, forestry, sand and gravel) comprise up to 25% of Chittenden County's land area, a decrease of 5% since 2003 due to residential development (Source: CCRPC, Land Based Classification System, 2003 & 2008). Further information is provided below from the USDA Census of Agriculture, 1997 and 2007.
 - Chittenden County lost nearly half its dairy farms between 1997 and 2007. Check this data source.
- 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. This presents a new set of challenges for farmers and communities, including access to markets and access to affordable land. Difficulty acquiring the proper equipment, or access to a regulated processing facility is also a common problem for some new farmers. We will need to adjust our regulations and programs to ensure that we are not unnecessarily prohibiting agricultural enterprises from diversifying; as well as continue efforts to ensure that agricultural enterprises remain economically viable.
 - The average property taxes per acre for farms in Chittenden County increased 82 percent (adjusted for inflation) from 1987 to 2007, from \$18.60 to \$33.86.
 - The net farm income per acre for farms in Chittenden County increased from \$102.49 in 2002 (adjusted for inflation) to \$110.17 in 2007 (compared with Vermont's increase from \$93.93 to \$129.20). However the income trends vary depending on the product: there were decreases in the value of "dairy, cattle and calves" and "all other farm products" and increases (in some cases dramatic) in the value of other types of farm products (farm income from products made on the farm such as cheese or for services provided on the farm such as farm equipment repair).

- Good 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.
- Extraction industries are associated with different land management issues than farms and forests; however these are included here for lack of a better location at this time. The only earth resources in Chittenden County that currently are commercially viable are sand and gravel. These nonrenewable resources are used to produce building materials (such as concrete and railroad ballast), to use as landscaping materials, and to maintain roads.
 - Chittenden County is rich in sand deposits with over two billion cubic yards available. Almost another two billion cubic yards of sand is unavailable because of inaccessibility, conflicting land use, environmental sensitivity, or poor quality.
 - Gravel is less abundant with about 430 million cubic yards available and less than 140 million cubic yards unavailable.

Key Indicators

- In 2009, 34% of privately owned land in Chittenden County was enrolled in Use Value Appraisal (UVA—a program allowing land to be taxed based on its income producing potential from agriculture or forestry); of that, 54% was on land >50 acres (Source: Informing Land Use Planning and Forestland Conservation Through Subdivision and Parcelization Trend Information – Vermont Natural Resources Council, September 2010).
 - Acres and number of parcels of UVA Forest Land enrollment.
 - Acres and number of parcels of UVA Agricultural Land enrollment.
- The number of farms have increased, with the acreage of farmland has decreased.

NUMBER OF FARMS OF DIFFERENT SIZES IN CHITTENDEN COUNTY, 1987 - 2007

Farm Size (Acres)	1987	1997	2007	1987 to 2007 Change	
				Number	Percent
1,000 or More	7	10	11	4	57.14%
500 to 999	44	23	25	-19	-43.18%
180 to 499	140	123	203	63	45.00%
50 to 179	134	137	178	44	32.84%
10 to 49	99	123	143	44	44.44%
Under 10	28	40	81	53	189.29%
Total	452	456	641	189	41.81%

SOURCE: U.S. Census of Agriculture, 1987, 1997 and 2007.

ACRES DEVOTED TO DIFFERENT USES ON CHITTENDEN COUNTY FARMS, 1987 – 2007

Use*	1987	1997	2007	1987 to 2007 Change	
				Acres	Percent
Cropland	53,177	42,188	31,161	-22,016	-41.40%
Woodland	31,925	28,853	34,744	2,819	8.83%
Other (including pasture)	12,967	12,314	17,477	4,510	34.78%
Total	98,069	83,355	83,382	-14,687	-14.98%

SOURCE: U.S. Census of Agriculture, 1987, 1997 and 2007

* Cropland-includes land planted for Christmas tree production and short rotation woody crops. Woodland includes natural or planted woodlots or timber tracts and cutover and deforested land with young growth which has or will have value for wood products and land in tapped maple trees.

For Additional Information and Actions

- See Natural Systems Analysis Report, located in the appendix
- See Collective Impact Strategy X,Y,Z for implementation steps

SOCIAL COMMUNITY

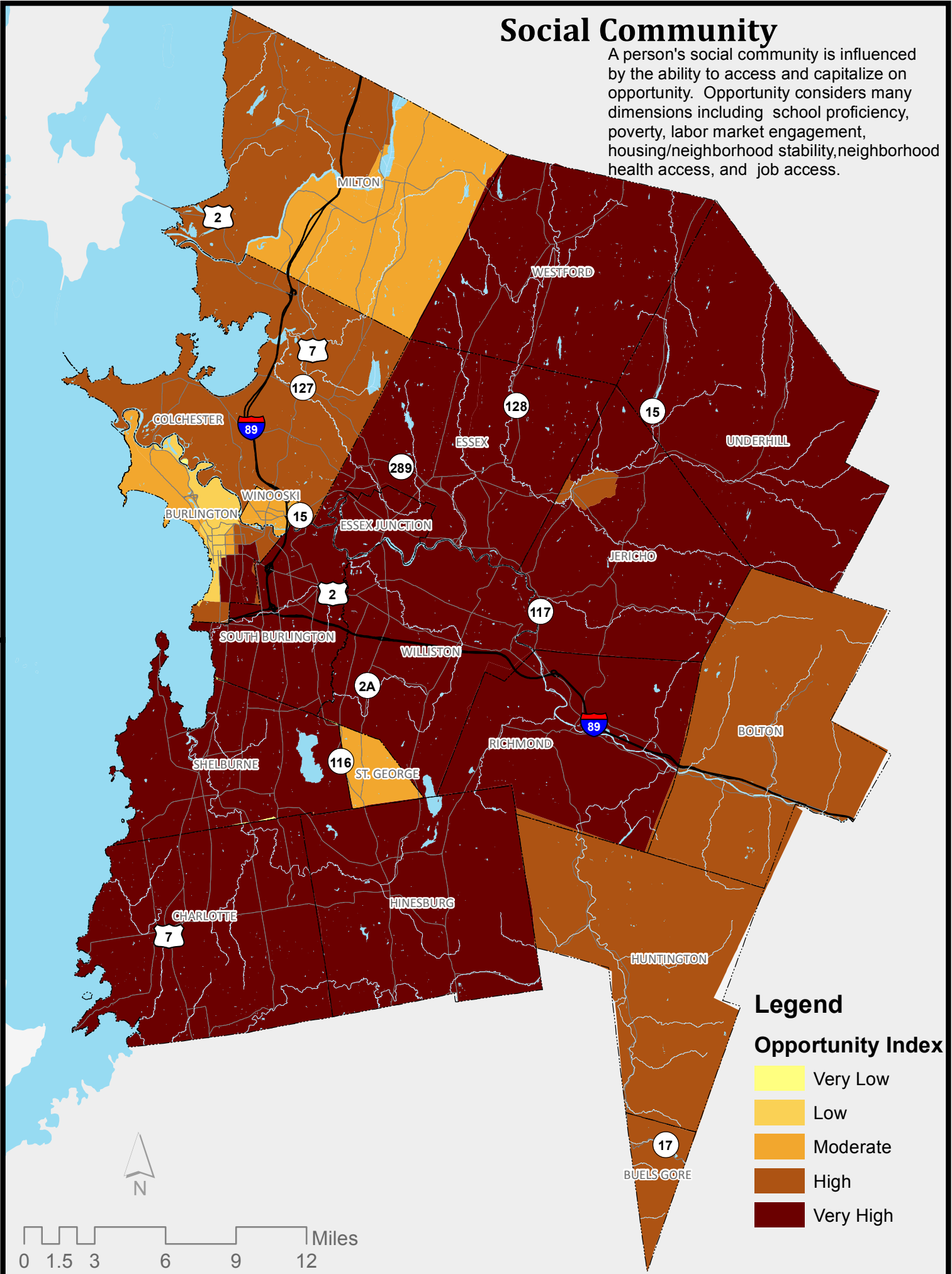
Broad Goal: All community members have the skills, resources, and assurances needed to participate in the workforce and in their family, civic and cultural lives, within and among their neighborhoods, and in the larger community.

INTRODUCTION:

Need to write...

Social Community

A person's social community is influenced by the ability to access and capitalize on opportunity. Opportunity considers many dimensions including school proficiency, poverty, labor market engagement, housing/neighborhood stability, neighborhood health access, and job access.



2.5 Education, Knowledge and Skills

Education, Knowledge and Skills Goal: Lifelong learning opportunities are available to all.

INTRODUCTION: This section provides an overview of the state of educational participation and achievement in Chittenden County. Understanding the state of education provides an insight into the knowledge and skills of residents and how they can apply these to improve their quality of life.

Key Issues/Trends/Insights

- Educational achievement is essential for effective participation in society. Increasingly, urban societies are becoming knowledge-based and urban economies require innovative solutions to meet market demands. People's ability to learn new skills during their working lives is important if they are to keep pace with rapidly changing work environments. Access to life-long learning opportunities is also related to people's need for self-fulfillment and self-determination.
- Education has been linked to economic security (provide a citation). Not only do incomes rise with educational attainment, but also the rate of increase is higher for those with higher levels of education. As education helps individuals become economically successful, it also helps regional economies. Skilled workers provide a competitive advantage to our region.
- Students math and science test scores, such as those given to 11th graders in 2010, are low even though they are generally above the state averages. In most cases, less than 50% of students in the schools with the best scores are proficient in math and science. If Chittenden County is to be a high tech community, it must enhance its public school performance in these fields to attract top technology and medical talent from across the country and to generate a local labor supply that meets employer needs.
- Older children and youth who have access to quality out-of-school and summer opportunities are more likely to develop the skills they need for performing well in school and stay engaged in school
- 42% of Vermonters who have less than a high school education earn an income below the federal poverty level - only 5% of those who have a college degree earn so little.
- The area needs to address labor recruitment and development to offer the attractions needed for such recruitment, including more affordable quality housing and school systems that are at least on par (in key quality measurements, such as test scores, percent of graduates going on to post secondary education, extracurricular activities, advanced placement courses, available technical courses and programs such as those in Science, Technology, Engineering and Mathematics-STEM, etc) with those communities in which technical, professional and managerial personnel live in leading technology centers across the country.
- In Chittenden County, educational levels among residents 25 years old and older exceed state and national norms. The estimated percentage of County residents with a four year bachelor's degree, or higher is 42.4% compared to a state average of 32.6% and a national average of 27.5%. The percent with graduate degree also exceed state and national averages by significant margins.

- 30% of employers (largely within the skilled machine trades) report that they have training needs that are not met by local resources. Source: WDGTT Chittenden Employer Survey, September 2011
- Two-thirds of people with less than a high school education report having one or more chronic health conditions, compared to one-third of those who have a college degree or more.
- 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.
- The County's labor force has a relatively low unemployment rate and high labor participation rate, with many skills categories, particularly technical skills, reported as difficult to find or unavailable by area employers.
- Employers report very good to excellent workforce quality, with good work ethic and productivity, and low turnover and absenteeism.

EARLY CHILDHOOD EDUCATION

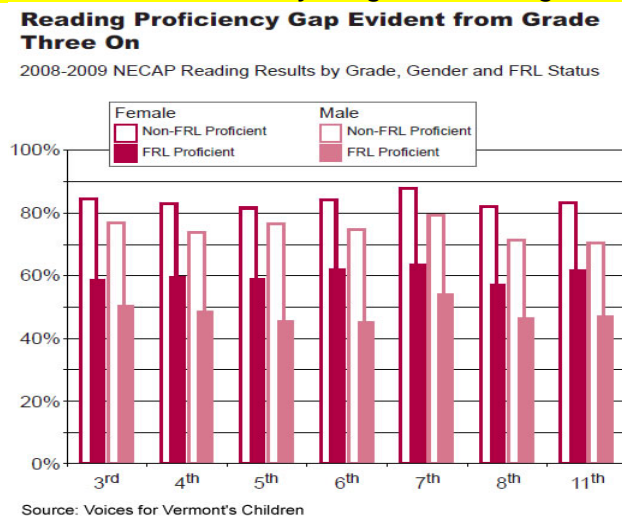
Key Indicators

- **Statewide Assessment of Kindergarten Readiness across 5 domains (AHS, United Way) need data**
- **% of Chittenden County families paying more than 25% of income towards child care by race and (head of household?) gender need data**

K-12 RESULTS

Key Indicators

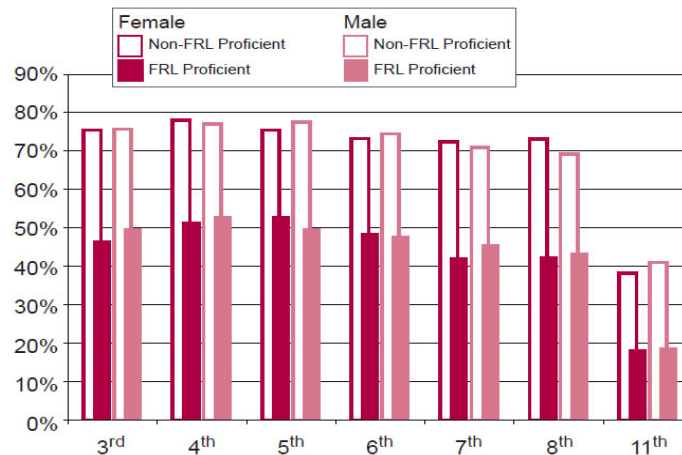
- **NECAP Reading proficiency GAP disaggregated by Free and Reduced Lunch status, gender, race, disability, ELL. (Track subject/grade (3rd, 8th, 11th) over time by district) – add research link about why 3rd grade reading level is important**



- **NECAP Math proficiency GAP** disaggregated by Free and Reduced Lunch status, gender, race, disability, ELL. (Track subject/grade (3rd, 8th, 11th) over time)

Math Proficiency Gap Persists - High School Performance Troubling for All Students

2008-2009 NECAP Math Results by Grade, Gender and FRL Status



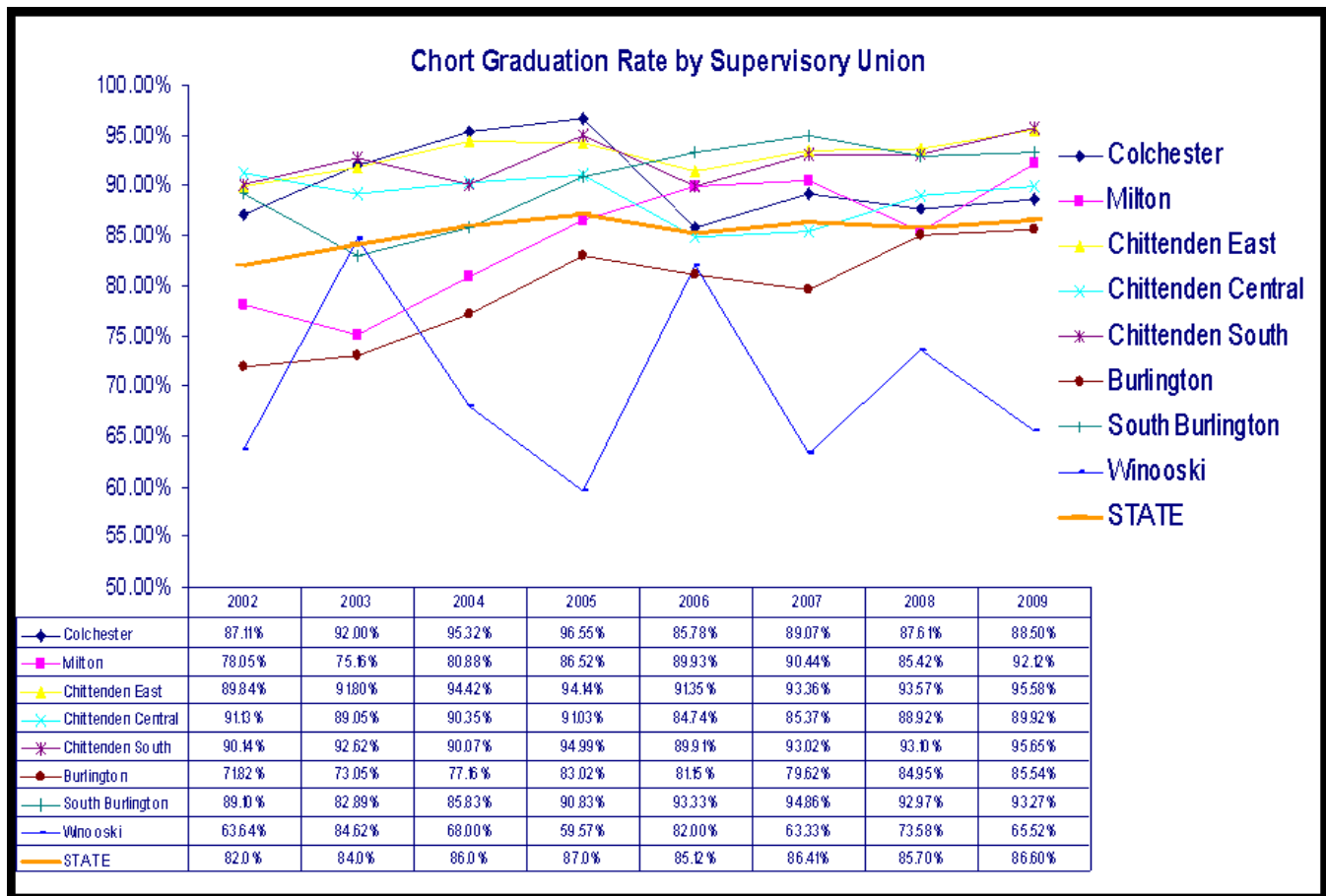
Source: Voices for Vermont's Children

- % of high school students scoring high proficiency science and math **need data**
- Reading level of inmates (see also Public Safety & Criminal Justice) **need data**

EDUCATIONAL ATTAINMENT

Key Indicators

- Chittenden County graduation rates disaggregated by income, gender, race, FRL, ELL. Source: US Census



- Level of education attained by gender, race (by town) **need data**

CAREER TRAINING

Key Indicators

- Total # of graduates from training programs **need data**

For Additional Information and Actions

- See Education Analysis Report, located in document appendix
- See Collective Impact Strategy X,Y,Z for implementation steps

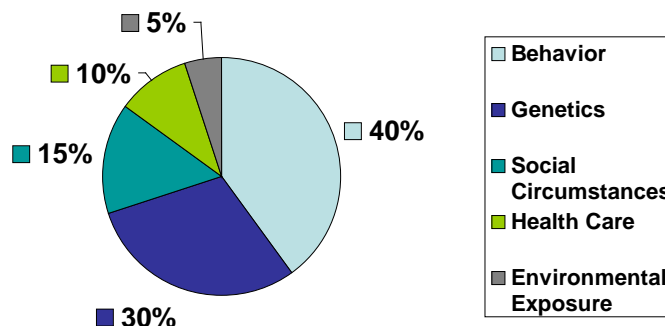
2.6 HEALTH

Health Goal: All Chittenden County residents are healthy.

Key Issues/Trends/Insights

- Similar to national statistics, the leading causes of death in Chittenden County are cardiovascular disease (32%), followed by cancer (26%). Tobacco use, diet, physical inactivity, and excessive alcohol use are behavioral risk factors for these diseases.
- All Chittenden County residents should have access to affordable and accessible health care.
- A person's behaviors are the most important factors that determine health outcomes. Chittenden County residents should have the opportunity to make the choices that allow them to live a long, healthy life, regardless of their income, education or ethnic background. Health starts in our families, in our schools and workplaces, in our playgrounds and parks, and in the air we breathe and the water we drink. The conditions in which we live and work have an enormous impact on our health.

Contributors to Health



- Behaviors can be influenced, supported, or undermined by community design. Community design can also impact social circumstances, health care, and environmental exposures. Healthy community design can influence the overall health of a community by making healthy lifestyle choices easily available and accessible to all community members. It links the traditional concepts of planning (such as land use, transportation, community facilities, parks, and open space) with health themes (such as physical activity, public safety, healthy food access, mental health, air and water quality, and social equity).

Key Indicators

- **Life expectancy:** 76.54 years in Vermont, 1989-1991, US Census.
- **Infant mortality rate:** 5.1 per 1,000 live births in Vermont, 2007, US Census.
- **Low birth weight babies:** 6.2% of births in Vermont, 2007, US Census.
- In the Burlington Health Service Area, 2% of adults report poor general health, 34% of adults report mental health not good at least one day in past 30 days (2004-2008, BRFSS).

➤ CAN WE PROVIDE NATIONAL STATISTICS AS A COMPARISON?

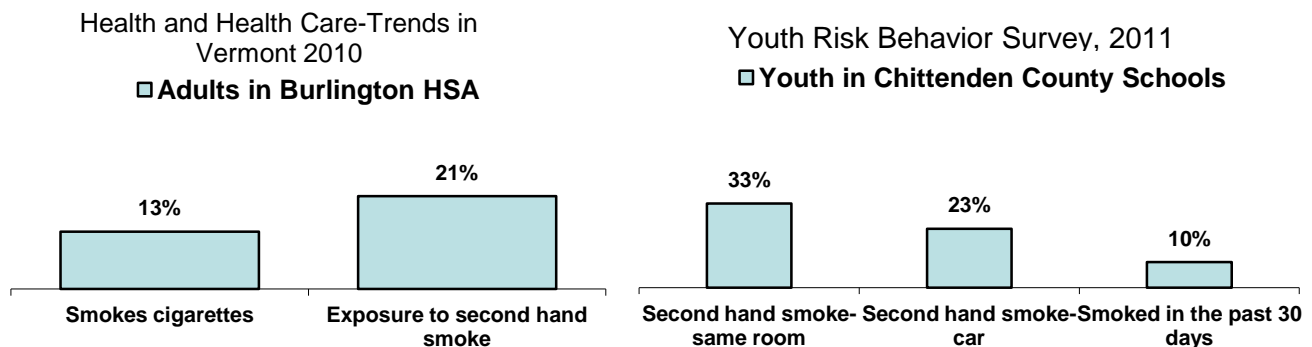
HEALTH BEHAVIORS

Key Issues/Trends/Insights

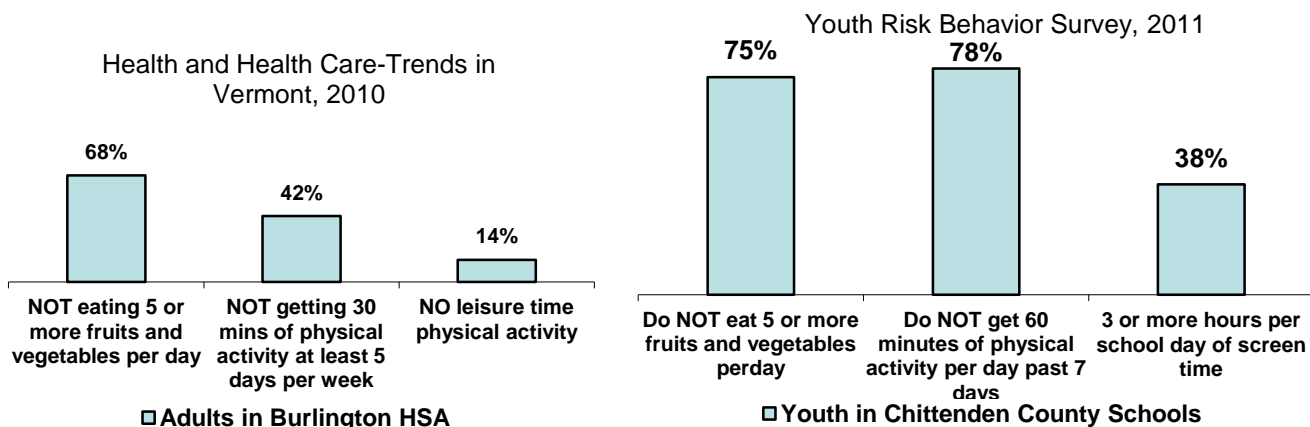
- Community design can improve population health by increasing physical activity, reducing injury, increasing access to healthy food, improving air and water quality, minimizing the effects of climate change, decreasing mental health stresses, strengthening the social fabric of a community, providing fair access to livelihood, education, and resources, reducing exposure to tobacco advertising, and increasing smoke-free indoor and outdoor policies.
- Interventions at the community, policy, and systems levels of the Vermont Prevention Model are critical to achieving individual level behavior changes that will improve health.
- Eliminating tobacco use, increasing physical activity levels and improving nutrition, and decreasing excessive alcohol consumption are priorities in decreasing the leading causes of death. Research shows that healthy community design is associated with improvements in these health behaviors.
- Within Chittenden County, there are several identified populations who experience health disparities (i.e., racial or ethnic minorities, low-income, homeless).
- Among adults and youth in Chittenden County:
 - Too many smoke or are exposed to second hand smoke.
 - Too many are not getting enough physical activity.
 - Too many are not eating enough fruits and vegetables.
 - Too many are engaging in underage and/or binge drinking.

Key Indicators

➤ Tobacco use



➤ Diet and physical inactivity



- In 2010, 18% of adults in Chittenden County report engaging in binge drinking. 7% report being heavy drinkers (2004-2008, BRFSS).
- In 2011, 32% of Chittenden County high school youth report drinking in the past 30 days.

For Additional Information and Actions

- See Public Health Analysis Report, located in document appendix
- See Collective Impact Strategy X,Y,Z for implementation steps

ENVIRONMENTAL FACTORS

Key Issues/Trends/Insights

Key Indicators

- Environmental hazard “points” per acre (requested by PSC) **need data**
- 14% of adults in the Burlington Health Service Area report ever having asthma (2004-2008, BRFSS).
- 3.6 average annual hospitalization rate for asthma (2004-2006) (there are several other related asthma data points related to hospitalization)

For Additional Information and Actions

- See Public Health Analysis Report, located in document appendix
- See Collective Impact Strategy X,Y,Z for implementation steps

ACCESS TO QUALITY HEALTH SERVICES

Key Issues/Trends/Insights

Key Indicators

- 8% of adults in the Burlington Health Service Area report they do not have insurance coverage (2004-2008, BRFSS, VDH), 5% Chittenden and Grand Isle Counties (2009, VTHIS, BISCHA)

- **16% in Chittenden and Grand Isle Counties are covered by any state health insurance program** (2009, VTHIS, BISCHA) ?not?
- **12% of adults in the Burlington Health Service Area report they do not have a doctor** (2004-2008, BRFSS, VDH)
- **People needing medical care, dental care, diagnostic test, prescribed medicine, mental health care, but did not get it because of cost** (Source: BISHCA – VT Household Health Insurance Survey) – medical care, dental care, etc. are each separate data points
need data

For Additional Information and Actions

- See Public Health Analysis Report, located in document appendix
- See Collective Impact Strategy X,Y,Z for implementation steps

2.7 Public Safety & Criminal Justice

Public Safety & Criminal Justice Goal: Improve public safety.

Key Issues/Trends/Insights

- Feeling safe and secure in our homes, communities and urban areas is key to overall health in the community. Safety and perceptions of safety feature highly in people's view of their living environment, their sense of well-being and quality of life. As urban areas grow, the need for safe social and physical environments, where people are able to participate fully in their communities, becomes an increasing challenge.
- The cost of emergency response and overlapping law enforcement agencies is a challenge to municipalities.

Key Indicators

- **Violent Crime Rate (per capita) vs non-violent** Source: VCIC (AHS list) **need data**
- **Rate of adult abuse and neglect victims (AHS list)** **need data**
- **Crime by type Chittenden County vs. Vermont 2009**

Crime by type Chittenden County vs. Vermont 2009		
Offense Type*	Chittenden County	Vermont
Total	9973	29816
Murder	1	7
Robbery	30	112
Forcible Rape	30	123
Sex Assault	2	3
Arson	20	76
Burglary	751	3370
Theft from Motor Vehicle	1232	2827
Larceny	1196	4063
Stolen Property	61	201
Drug/Narcotic Violations	322	715
Notes: *not all types reported in this table. Source: Vermont Crime Information Center Online		

- **Incarceration rates by race compared to general population** (dept of corrections) **need data**

For Additional Information and Actions

- See _____ Analysis Report, located in document appendix
- See Collective Impact Strategy X,Y,Z for implementation steps

2.8 Social Connectedness

Social Connectedness Goal: Increase opportunities to engage in the social fabric and activities of the community.

Key Issues/Trends/Insights

■ ARE THERE ANY STUDIES WE CAN CITE FOR THIS SECTION?

- This section looks at how people come together, interact and network. Social connectedness provides an indication of community strength.
- The concept of community is fundamental to people's overall quality of life and sense of belonging. Informal networks and how people connect with others are important for strong communities and social cohesion. Confident and connected communities support social and economic development in our cities. Aesthetically pleasing surroundings positively influence residents and visitors, encouraging better care more for the environment. Strong communities have fewer social problems, are more adaptable in the face of change and when they do experience difficulty they have internal resources to draw upon.
- There are major health, economic and environmental benefits in developing opportunities for and participation in social interactions, recreation and leisure, arts and cultural activities.
- An individual's engagement in arts activities, particularly from a young age, encourages self-expression and self-understanding, as well as whole-brain development. Group attendance at art events gives community members a shared experience that is both aesthetically rewarding and contributes to cultivating and supporting a culture of art appreciation
- Communities care about each other more when residents from different cultural and economic backgrounds learn from each other and create personal connections.
- Build community strength by increasing the opportunities for residents to come together, interact, and network.
- Research indicates that people who experience loneliness suffer greater rates of depression, illness, addictions and increases crime in the community.
- Leaders from various ethnic communities indicate a desire to feel more a part of the larger community and for others to learn about their cultures.
- "Access to viable transportation options, both public and private, is lacking for refugees in Vermont. This gap acts as a significant barrier in the adaptation of refugees to their new homes and their acculturation to their new host communities. Furthermore, limited transportation options can in substantial ways restrict the autonomy and independence of refugees, leaving them dependent on the services and schedules of others, which in turn can adversely affect their ability to seek and secure gainful employment, receive necessary medical care, and access other goods and services vital to survival, such as food and clothing." (Source: *Transportation, Equity, and Communities at Risk: Refugee Populations and Transportation Accessibility in Vermont* UVM Transportation Research Center Report #10-018, Pablo S. Bose PhD, March 2011)
- Increase opportunities for underserved populations to be actively engaged in creative activities, as well as attend arts events

- Recreational opportunities are important contributors to Chittenden County’s high quality of life.

Key Indicators

- **How do residents in CC feel about their overall quality of life?** (primary data - Survey residents about quality of life) **need data**
- **% of residents who feel positive about the increasing diversity of our region.** (primary data - Survey residents about quality of life) **need data**
- **% of students who spend 3+ hours/week volunteering** (YBRS) **need data**
- **% of residents engaged in arts and cultural activities** (primary data - Survey residents about quality of life) **need data**

For Additional Information and Actions

- See **other research/reports?**
- See Collective Impact Strategy X,Y,Z for implementation steps

2.9 Civic Engagement and Governance

Civic Engagement and Governance Goal: Increase active individual and organizational participation in all levels of government by ensuring that government processes are open, transparent, and accessible.

Key Issues/Trends/Insights

- This section looks at the participation of residents in representative governance and decision making processes at the local levels. Civil and political rights are a fundamental aspect of democracy and human rights, protecting the ability of people to participate in politics and decision making by expressing views, protesting, having input and voting.
- Enabling democratic local decision making is one of the key purposes of local government and is also important in promoting the social, economic, environmental and cultural wellbeing of communities. Effective civil and political systems allow our communities to be governed in a way that promotes justice and fairness and supports people's quality of life.
- The population in our urban area is becoming increasingly diverse, with more people from different ethnic groups and cultural backgrounds. It is important that we understand how our institutions and processes can continue to support people's civil and political involvement. This understanding can also help us work to remove barriers that limit people's ability to exercise their civic rights and to participate in decision making.
- Leaders from various ethnic communities indicate a disconnect with city governance and representation.

Key Indicators

- **Do you feel you can access other groups and those who make decisions** (source: primary data collection through survey) **need data**
- **% of eligible voters that vote**

% General Election Voter Turnout				
	2004	2006	2008	2010
Chittenden County	69%	59.9%	70.2%	52%
Vermont	70.7%	60.7%	72%	54%

Source: Vermont Secretary of State. http://vermont-elections.org/elections1/election_info.html

- **% minority populations serving on town and school boards** (Source: Primary data collection) **need data**
- **% women serving on town and school boards** (Source: Primary data collection) **need data**

For Additional Information and Actions

- See **other research/reports?**
- See Collective Impact Strategy X,Y,Z for implementation steps

ECONOMIC INFRASTRUCTURE

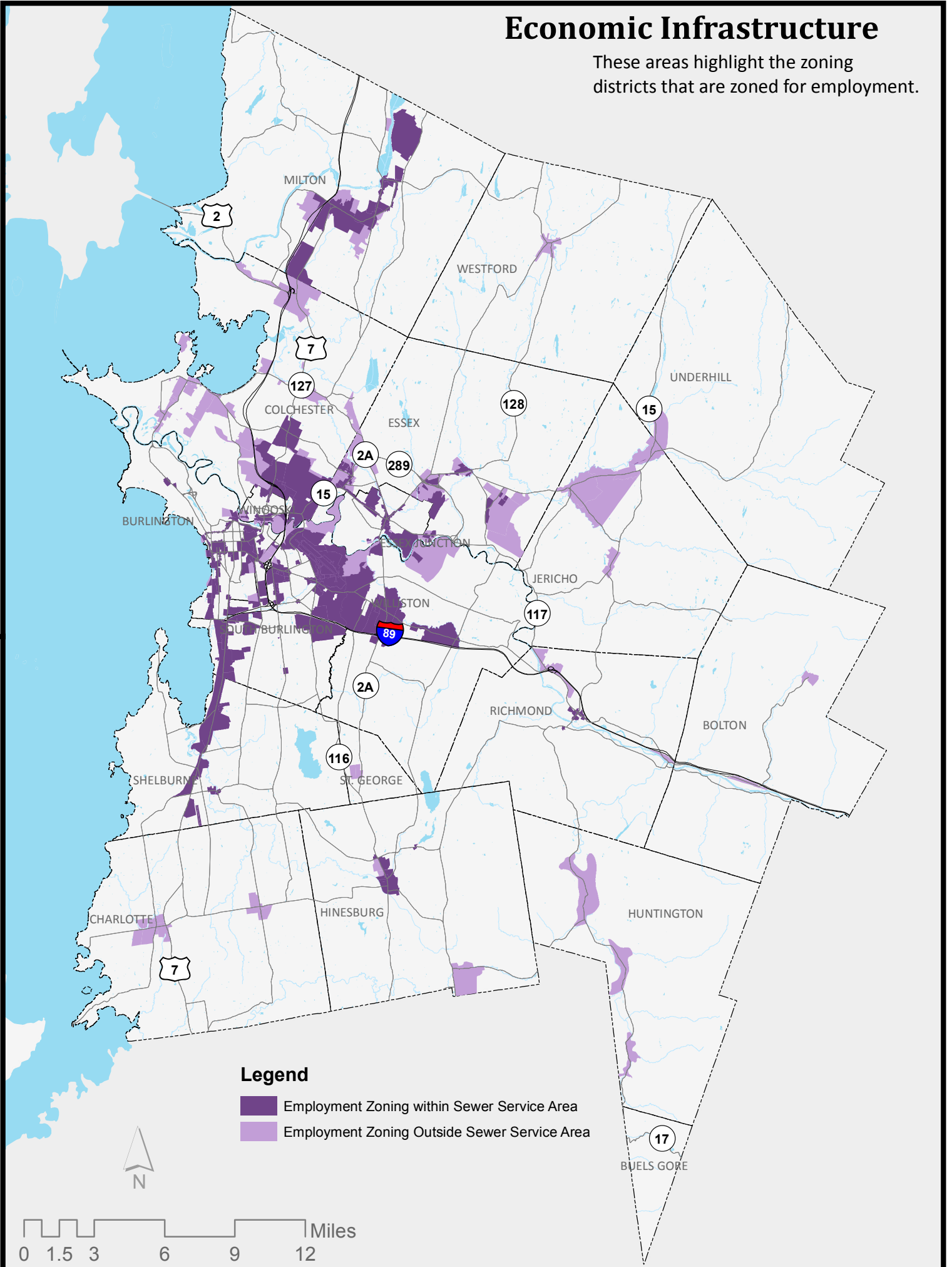
Broad Goal: Build the region's capacity for shared and sustainable improvements in the economic well being of the community through support of both local and globally competitive initiatives.

INTRODUCTION: The more prosperous an economy, the better off the residents of that economy are in terms of opportunities to gain a higher income, purchase needed items and access quality health care. In general, this leads to greater social connectedness, educational advancement, wider employment options and increased life expectancy. Over the past several decades the County's share of population, GDP, jobs and income, among other factors, has increased. In reviewing the findings presented in the analysis report, it is apparent that Chittenden County enjoys a competitive advantage relative to the balance of the state.

Despite the advantages the region has enjoyed in many areas however, there are some disquieting trends that need to be acknowledged. If recent trends continue (for instance, additional cutbacks at IBM), there will be additional loss of jobs in high-wage industries and slow growth in lower-wage industries. Job growth has been elusive over the past decade and this too is likely to continue into the future. The rate of population growth has declined and that is likely to continue into the future. Local efforts, coupled with strong pressure on state and federal elected officials, could work to mitigate some of these disadvantages.

Economic Infrastructure

These areas highlight the zoning districts that are zoned for employment.



2.10 Economy

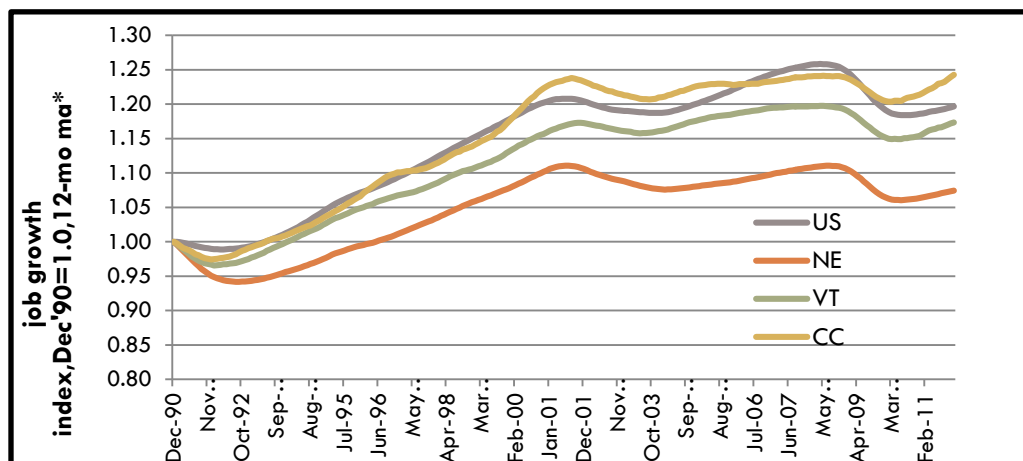
Employment Goal: Retain and support existing employers and jobs.

Key Issues/Trends/Insights

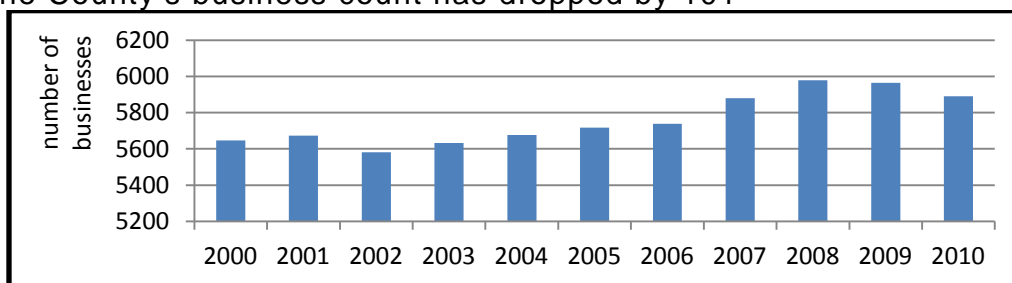
- Retention and development of employers and jobs in Chittenden County increase wages and prosperity
- Employment in the private sector declined between 2000 and 2010. Total non-farm employment in Chittenden County decreased from 95,354 to 93,231 between 2000 and 2010 – a loss of 2,123 jobs, or -2.2 percent. This was offset in part by an increase in public sector employment, but it was not sufficient to offset private sector losses (private sector: -4,386 + public sector: 2,263 = net -2,123).
- Unemployment statistics are complicated because of under-employment, those that have given up on looking for employment, and access to the online system or language barriers (New Americans have reported this being an issue).

Key Indicators

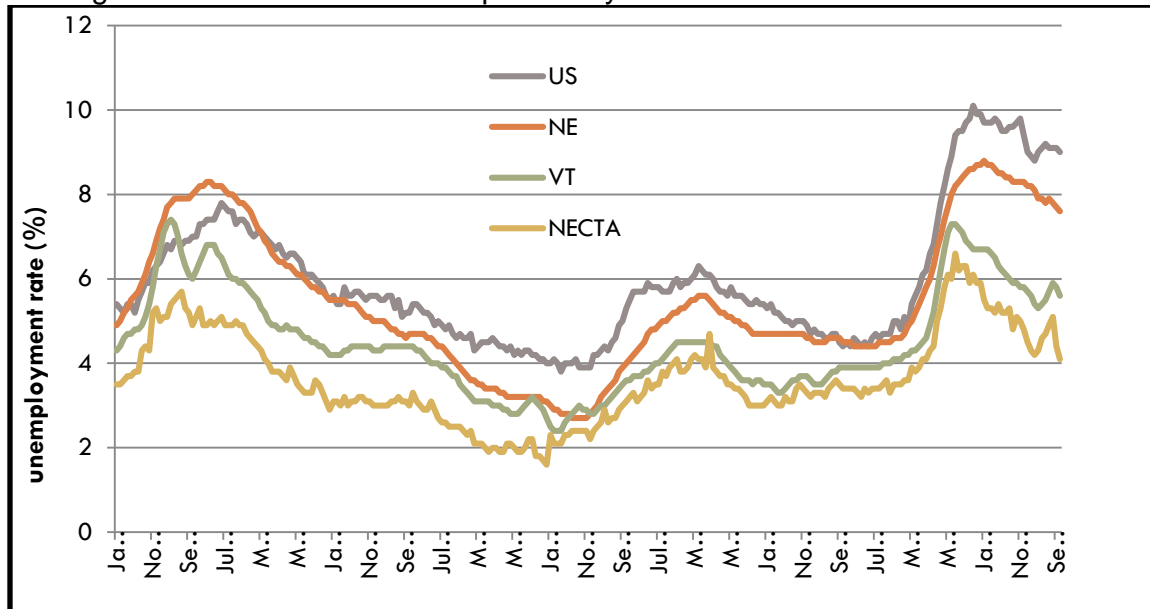
- **Recent Chittenden County job growth** has been stronger than the U.S., New England and Vermont.



- **Total number of businesses in Chittenden County:** Since peaking in 2008 the County's business count has dropped by 101



- **The unemployment rate in the Burlington NECTA*** has declined faster than the New England and US rates over the past two years.



- 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 “Knowledge and Skills” topic.

Key Indicators

- **Largest Industry Sectors** - Employ 68% of total in Chittenden County **need data**

Industry Sector	Employment	Employers	Total Wages	Avg Wage
Health care and social assistance	14,060			
Educational services *	11,239			
Manufacturing	10,744			
Professional, scientific & technical services	6,725			
Total	63,003			

- **County Industry sectors by wage quartiles**

Source: Vermont Department of Labor

	Emp. 2000	Wage 2000	Percentile	Emp. 2010
Top Quartile				
Mining	36	\$43,642	127.0%	39
Professional and technical services	6,014	\$47,297	137.7%	6,734
Finance and insurance	3,546	\$49,930	145.3%	3,126
Manufacturing	16,759	\$50,344	146.5%	10,744
Utilities	291	\$64,941	189.0%	254
Middle Quartiles				
Health care and social assistance	11,031	\$33,181	96.6%	14,059
Transportation and warehousing	2,488	\$35,621	103.7%	2,072
Construction	5,305	\$37,118	108.0%	4,205
Information	2,651	\$40,102	116.7%	2,129
Wholesale trade	3,048	\$41,975	122.2%	3,127
Bottom Quartile				
Accommodation and food services	6,851	\$13,293	38.7%	7,679
Agriculture, forestry, fishing and hunting	176	\$16,421	47.8%	97
Arts, entertainment, and recreation	1,490	\$17,749	51.7%	1,476
Retail trade	12,139	\$20,696	60.2%	12,536
Educational services	2,296	\$24,141	70.3%	2,052
Real estate and rental and leasing	1,211	\$24,521	71.4%	1,109
Other services, except public administration	3,150	\$24,557	71.5%	2,658

- **Employment change by wage quartile**

Source: Vermont of Department of Labor Data Analyzed by Jeff Blodgett

	2000	2010	# Change	% Change
Top quartile	26,646	20,897	-5,749	-21.6%
Middle quartiles	24,523	25,592	1,069	4.4%
Bottom quartile	27,313	27,607	294	1.1%
Total	78,482	74,096	-4,386	

For Additional Information and Actions

- See Economic Base and Competitive Assessment Analysis Reports, located in document appendix
- See Collective Impact Strategy X,Y,Z for implementation steps

Entrepreneurship Goal: Increase local business ownership and entrepreneurial activities.

Key Issues/Trends/Insights

- Local entrepreneurs fuel the local economy
- Entrepreneurial development is a core characteristic of the area, and needs to be nurtured

Key Indicators

- Number of new business filings per year **need data**
- Patents **need data**

For Additional Information and Actions

- See Economic Base and Competitive Assessment Analysis, and Target Sector Reports, located in document appendix
- See Collective Impact Strategy X,Y,Z for implementation steps

Economic Diversity Goal: Improve economic diversity.

Key Issues/Trends/Insights

- Maintain economic diversity, and deepen existing sectors, seek even greater diversity.
- The number of subsectors with high location quotients shows a diversified employment base that offers opportunities for continued economic diversification and a broad base on which the County's economy can flourish.

Key Indicators

- **Employment by Major Industry Sector 2010***

NAICS Code	Industry sector	Chittenden County	Vermont	U.S.
Private Sector		83.3%	82.0%	83.5%
62----	Health care and social assistance	15.1%	15.9%	12.7%

44----	Retail trade	13.5%	12.9%	11.4%
31----	Manufacturing	11.5%	10.5%	9.0%
72----	Accommodation & food services	8.2%	9.7%	8.7%
54----	Professional, scientific & technical services	7.2%	4.6%	5.9%
23----	Construction	4.5%	4.6%	4.3%
56----	Admin, support, waste mgt, remediation services	3.4%	3.0%	5.8%
42----	Wholesale trade	3.4%	3.2%	4.3%
52----	Finance & insurance	3.4%	3.0%	4.3%
81----	Other services (except public administration)	2.9%	2.9%	3.4%
51----	Information	2.3%	1.8%	2.1%
48----	Transportation & warehousing	2.2%	2.2%	3.1%
61----	Educational services	2.2%	3.2%	1.9%
71----	Arts, entertainment & recreation	1.6%	1.3%	1.5%
53----	Real estate & rental & leasing	1.2%	1.0%	1.5%
55----	Management of companies & enterprises	0.3%	0.3%	1.5%
22----	Utilities	0.3%	0.6%	0.4%
11----	Forestry, fishing, hunting, and agriculture support	0.1%	0.9%	0.9%
21----	Mining	0.0%	0.2%	0.5%
Government Sector		16.7%	18.0%	16.5%

For More Information and Actions

- See Economic Base and Competitive Assessment Analysis, and Target Sector Reports, located in document appendix
- See Collective Impact Strategy X,Y,Z for implementation steps

Workplace Diversity Goal: Increase employer and employee workplace diversity.

Key Issues/Trends/Insights

- The more we take advantage of the strength of our community's diversity the stronger and more resilient our economy will be in the future.

Key Indicators

- **Total Employment Participation Rate in Private Industry** by race & gender – 7% minority, 48% women
- **Women-owned firms in 2007 in Chittenden County** = 28.2%, VT= 26%

For Additional Information and Actions

- See Economic Base and Competitive Assessment Analysis Reports, located in document appendix
- See Collective Impact Strategy X,Y,Z for implementation steps

Economic Development Location Goal: Provide land and building capacity for employment supported with adequate infrastructure in town centers, villages and other areas planned for development.

Key Issues/Trends/Insights

- Chittenden County is currently modestly-supplied with land for business construction
- Chittenden County is well-served with a highway network that facilitates multi-directional, but will decline unless investments are made.
- The County is generally well-served with utilities and telecommunications services necessary to support economic development, but could improve the quality and costs of telecommunications, in particular cell phone service.

Key Indicators

- **Location of available land (zoning) and space in comparison to the Planning Areas** (areas planned for growth) (see map of employment zoning **Ref # and page**)
- **Available Building Space or Vacancy Rates in Chittenden County** **need data**
- **Land Available in Chittenden County Business Parks,** **need data**

For Additional Information and Actions

- See Economic Base and Competitive Assessment Analysis Reports, located in document appendix
- See Collective Impact Strategy X,Y,Z for implementation steps

2.11 HOUSEHOLD FINANCIAL SECURITY

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

INTRODUCTION: Levels of income and wealth are key determinates of individual or family wellbeing. Economic standard of living involves a complex combination of factors such as income, living costs, and household size and composition.

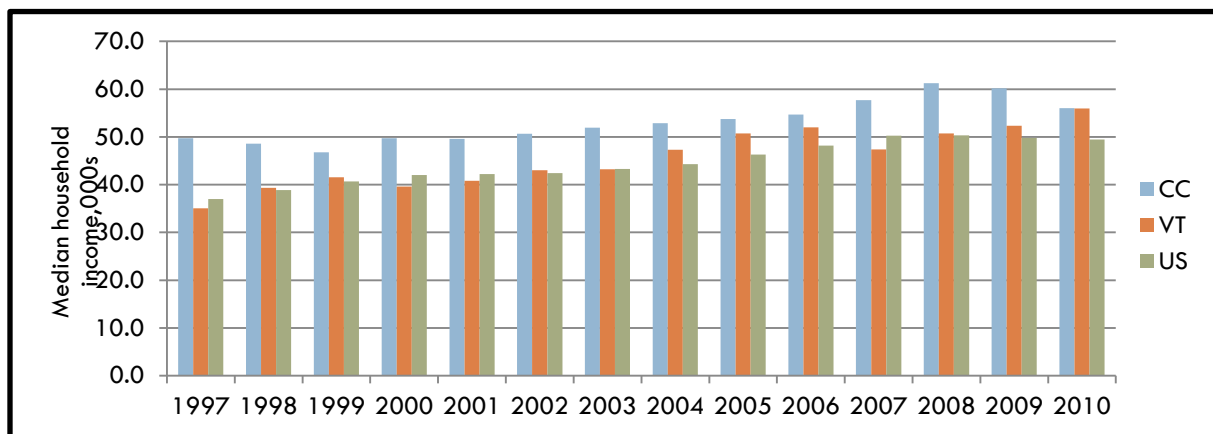
The more prosperous an economy, the better off the residents of that economy are in terms of opportunities to gain a higher income, buy material possessions and access quality health care. In general, this leads to greater social connectedness, educational advancement, wider employment options and increased life expectancy.

Key Issues/Trends/Insights

- Levels of income and wealth are key determinates of individual or family wellbeing. Economic standard of living involves a complex combination of factors such as income, living costs, and household size and composition.
- In 2008, 21% of Chittenden County residents were living at less than 200% of the federal poverty level, many receive state and federal assistance to meet basic needs
- Lower income Vermonters report higher rates of depression and chronic conditions, such as obesity, asthma, heart disease, stroke and diabetes.

Key Indicators

- **Median household income in the County has declined for two consecutive years.**



- **Household income by race** need data

Race of Household Head	Median Income	Margin of Error
White	60,297	+/- 1,376
African-American	40,865	+/- 5,687

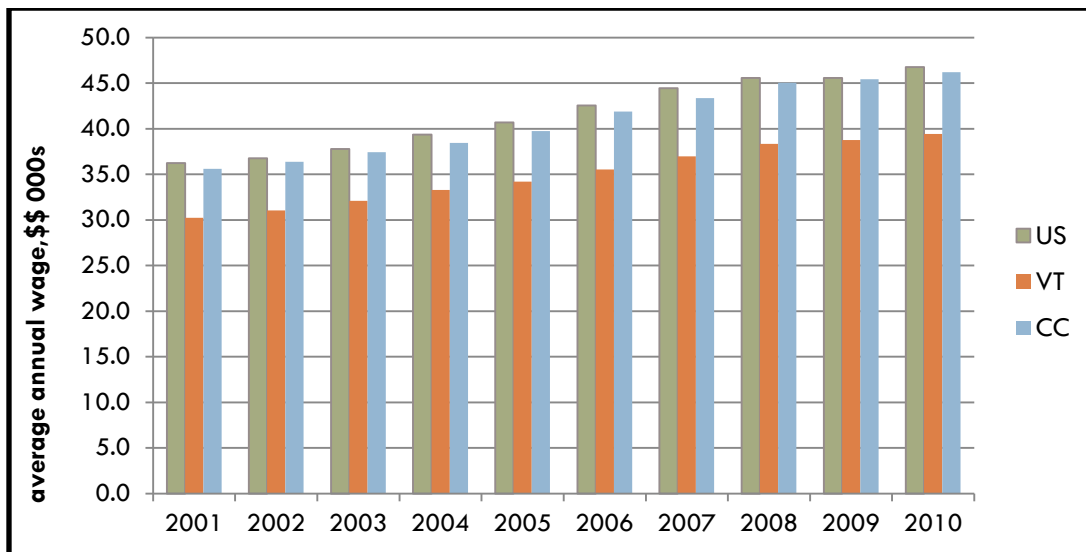
Asian	54,417	+/- 10,580
Two or more races	52,358	+/- 12,820

Source: ACS 2005-9

- **# of households in poverty** (Source: U.S. Census Bureau, American Community Survey) **check this data – 10%**

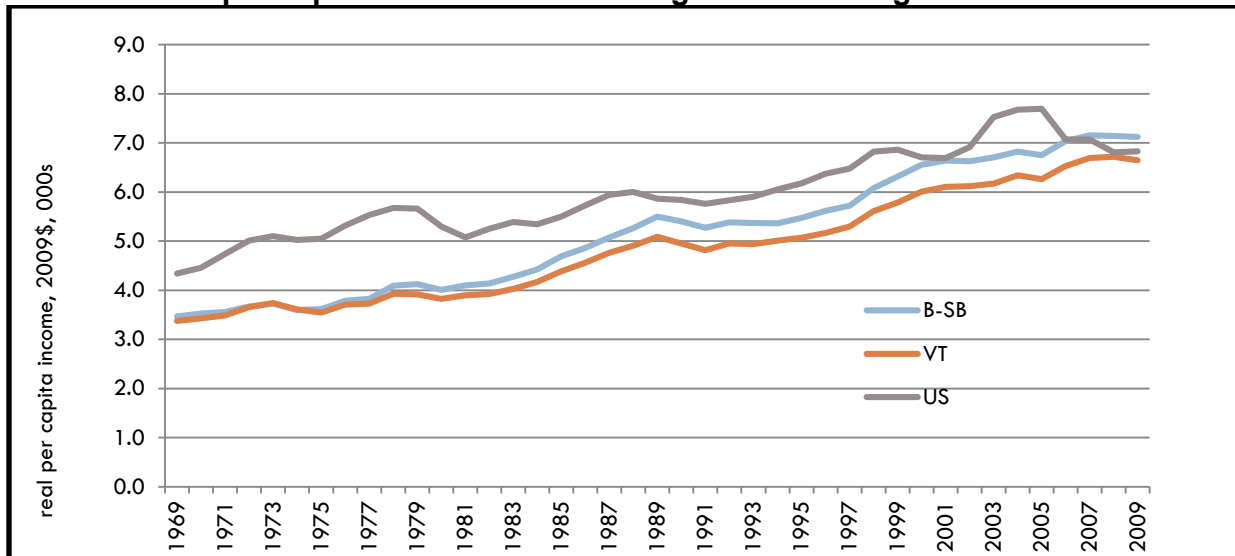
	Percentage of Families whose Income in the Last 12 Months is Below Poverty Level	
	ACS 2007 3-year Estimates	ACS 2010 3-year Estimates
Chittenden County	6.10%	6.70%
Vermont	6.90%	7.60%

- **Average wage in the County is higher than the State.**



source

- **Real per capita income in the Burlington-So. Burlington MSA now exceeds the US**



source

- **Combined Housing + Transportation Costs as a proportion of area median income (derived from the H+T Affordability Index, requested by PSC) need data**
- **Percent of CC households spending more than 45% of monthly income on housing and transportation. The Center for Neighborhood Technology (CNT) Tool, H+T has been developed as a more complete measure of affordability, accounting for costs of both housing and transportation. This indicator is only calculated for certain portions of Vermont and statewide comparison is not available at this time.**

For Additional Information and Actions

- See Housing Analysis Report, located in document appendix
- See Collective Impact Strategy X,Y,Z for implementation steps

BUILT ENVIRONMENT

Broad Goal: Make public and private investments in the built environment to minimize environmental impact, maximize financial efficiency, optimize social equity and benefits, and improve public health.

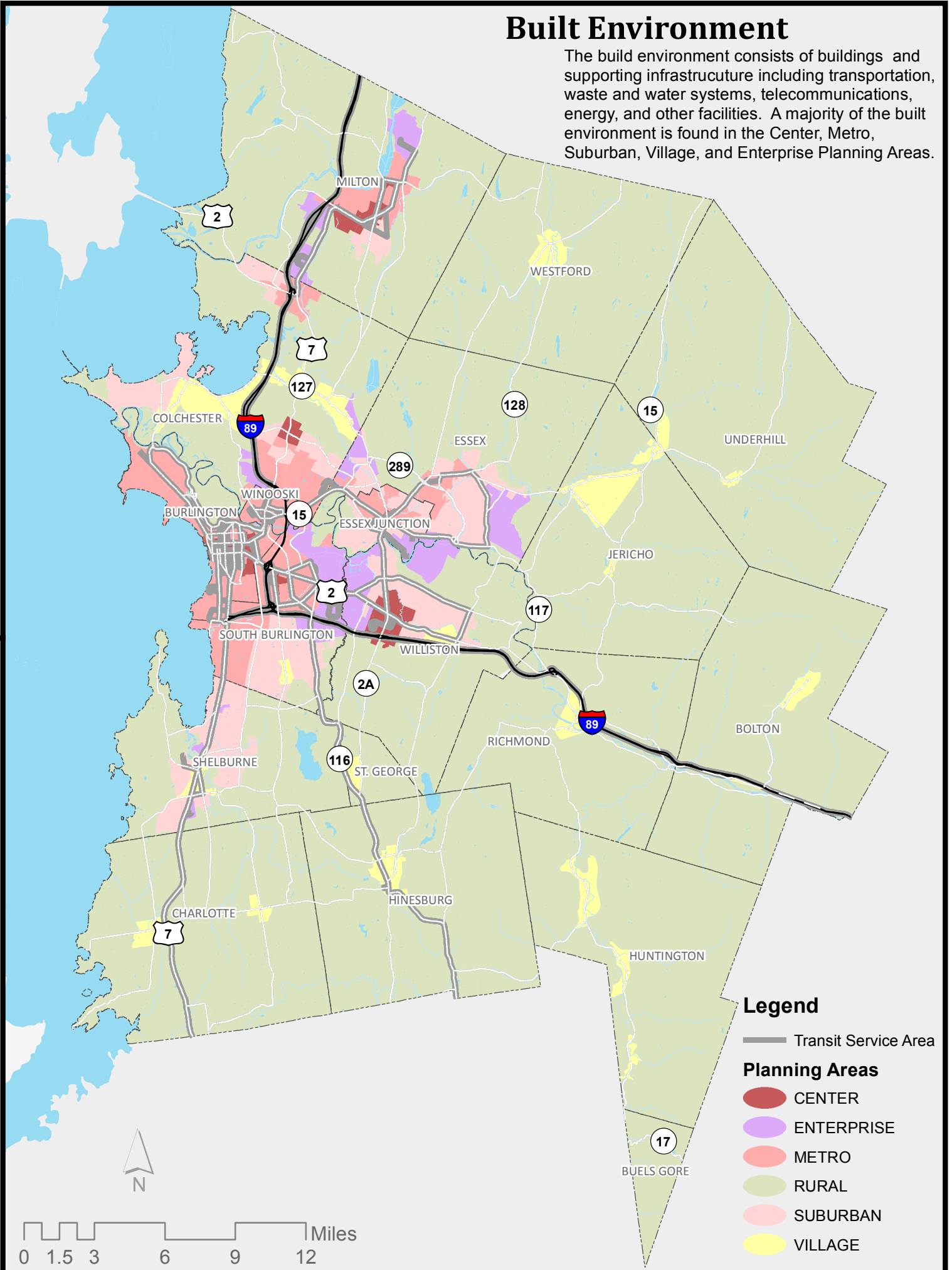
INTRODUCTION: The built environment is the physical buildings of the County combined with supporting infrastructure necessary for travel, waste, water, and energy for living, working, and playing. Strategic investments to Chittenden County's built environment and development centers is necessary for promoting a high quality of life that is hinged on economic development, affordability, and environmental stewardship. Significant regional planning for sidewalks, housing, transit choice, and cultural and recreational resources can make more homes and businesses in our centers the key to allowing growth to happen more sustainably.

Other vital infrastructure updates are also needed to support livability in these centers. Sewer capacity and water supply investments are necessary to accommodate new residents and employers. Renewable energy sources for buildings and alternatives to driving need to be planned for to reduce the consumption of fossil fuels and decrease carbon emissions.

This section focuses on the promotion of higher density, mixed use development in Center, Metro, Suburban, Enterprise, and Village Planning Areas. These actions would result in reduced energy for transportation and land use by promoting increased pedestrian/bicycle travel, availability of transit, reduction in vehicle miles traveled, and the need for smaller homes that maximize efficiency. Consolidating households and employers in these Planning Areas also makes for providing other infrastructure more efficient. A description of the Planning Areas can be found in Chapter 3 on page 93.

Built Environment

The built environment consists of buildings and supporting infrastructure including transportation, waste and water systems, telecommunications, energy, and other facilities. A majority of the built environment is found in the Center, Metro, Suburban, Village, and Enterprise Planning Areas.



2.12 Land Use

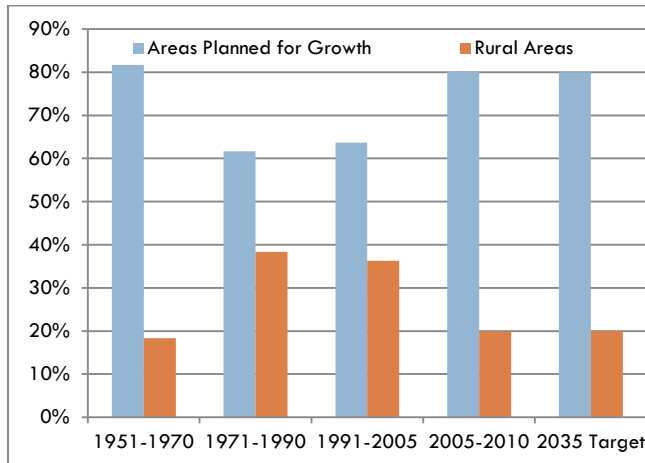
Land Use Pattern Goal: All future development will support, maintain, and reinforce Vermont's historic settlement pattern of compact hamlets, villages and urban centers separated by and harmonizing with working and natural rural countryside.

Key Issues/Trends/Insights

- Over the past 60 years development trends, zoning regulations, and consumer preference have shifted growth away from the metropolitan areas around Burlington, to more suburban and rural locales. This resulted in scattered development at low densities that consume large amounts of land, high infrastructure costs, and little opportunity for social interactions.
- Recent studies and surveys indicate that households are choosing to live in areas with shorter commute times, nearby shops and services, and more transit options. This growing demand indicates that the small lot and attached accessible housing stock may be in short supply.
- Forest and agricultural land fragmentation and increased parcelization have meant that the number of parcels in rural areas has increased while their size has decreased, diminishing their economic viability, scenic, and the ecological services they provide.
- Future land-based opportunities for farming and forest based products, recreation and tourism may become more limited as suitable open land becomes less available. This has far reaching consequences for the future of Vermont's local and tourism economies.

Key Indicators

➤ Percent of New Structures in Areas Planned for Growth: 1950 – 2010



Source: 1951-2005, UVM Year Built Data, 2005-2010, VT e911 board esites, 2035 Target, CCRPC

- #### ➤ Net Acres of agricultural and natural resource land lost annually to development per new Resident (requested by Partnership for Sustainable Communities)

For Additional Information and Actions

- See Historic Development and Future Land Use Transportation Analysis Report, located in document appendix
- See Collective Impact Strategy X,Y,Z for implementation steps

Brownfields Goal: Clean up contaminated properties for productive reuse.

Key Issues/Trends/Insights

- A brownfield is a site that is believed (correctly or incorrectly) to contain pollution that limits reuse of the site. The pollution that is believed to exist may have been created long ago. A program to address brownfields identifies whether a site is polluted, the nature and extent of the pollution, and the measures (and their costs) needed to remove the pollution, reduce its effects, or protect against its impacts.
- CCRPC has been awarded a federal grant to initiate an assessment program that would work with property owners on the voluntary identification of properties in Chittenden County that may be contaminated by petroleum products.
- A sustainable society operates without contributing new contaminants to the environment, but also cleans up old contaminants and turns those lands into productive use. Contamination impairs the environment, poses risks to human health, and discourages productive use or reuse of the property.

Key Indicators

- Total # Chittenden County sites with completed corrective action. This indicator can be obtained from DEC's Waste Management ID database (WMID), searching for the different categories of clean-up completion: Certificate of Completion, Sites Management Action Completed, No Further Action Plan or No Further Remedial Action Plan. This database includes properties in the Brownfields, Spills and Active Hazardous Waste Sites lists (all of these lists have contaminated properties).

For Additional Information and Actions

- See _____ Analysis Report, located in document appendix
- See Collective Impact Strategy X,Y,Z for implementation steps

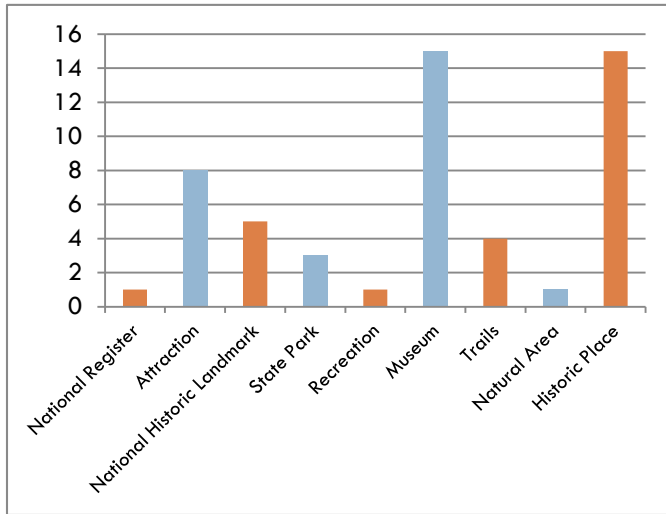
Historic Resources Goal: Respect, preserve, restore, interpret and make accessible archeological resources.

Key Issues/Trends/Insights

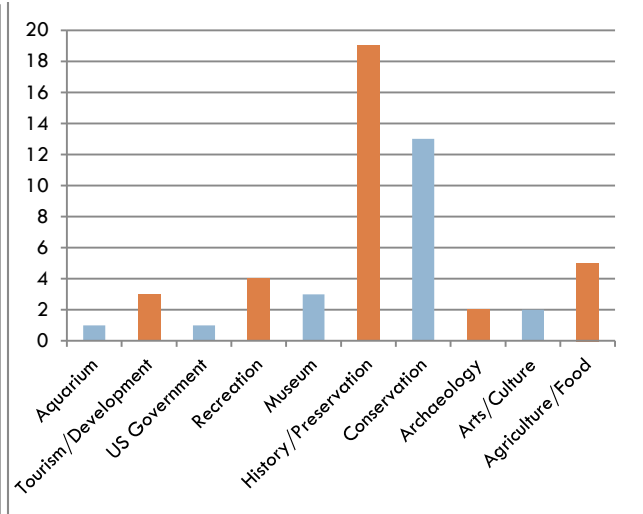
- Archeological and historic resources are important not only because they help define the region's identity and contribute to our quality of life, but also because they may perform important present-day functions and promote tourism.
- There are over 4,400 designated historic sites in Chittenden County (over 2,500 in Burlington alone) and over 80 designated historic districts (see Map X in Appendix).

Key Indicators

National Heritage Resources Chittenden County



National Heritage Organizations Chittenden County



Source: Champlain Valley National Heritage Partnership Management Plan

For Additional Information and Actions

- See Historic Development and Future Land Use Transportation Analysis Report, located in document appendix
- See Collective Impact Strategy X,Y,Z for implementation steps

2.13 Housing

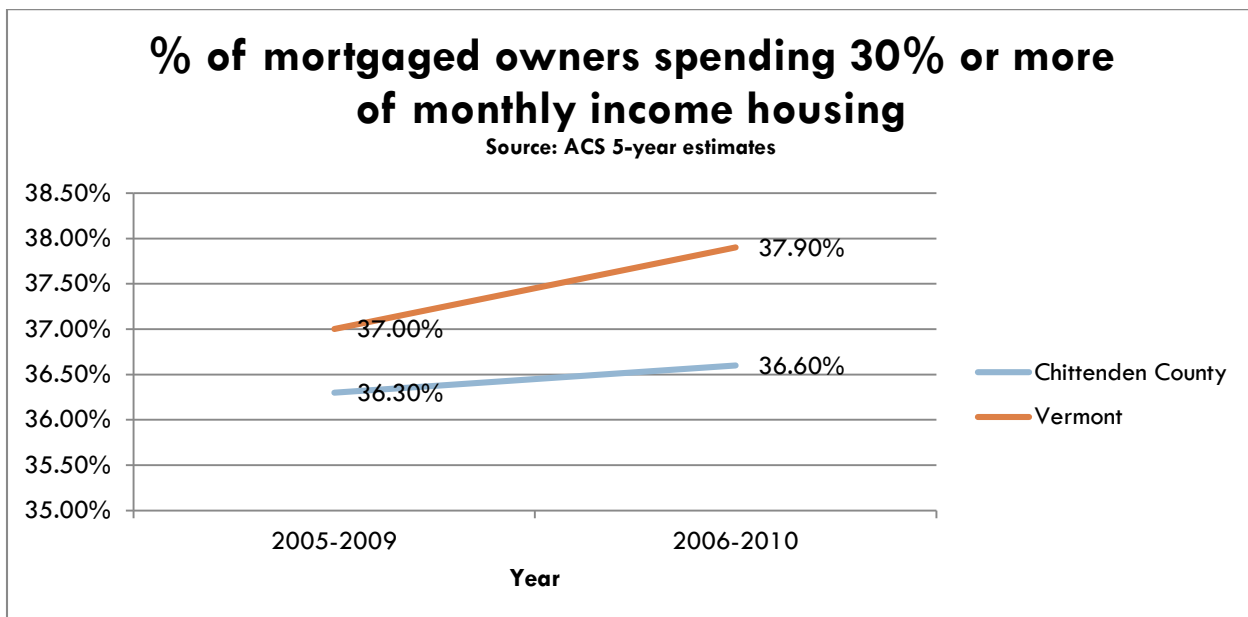
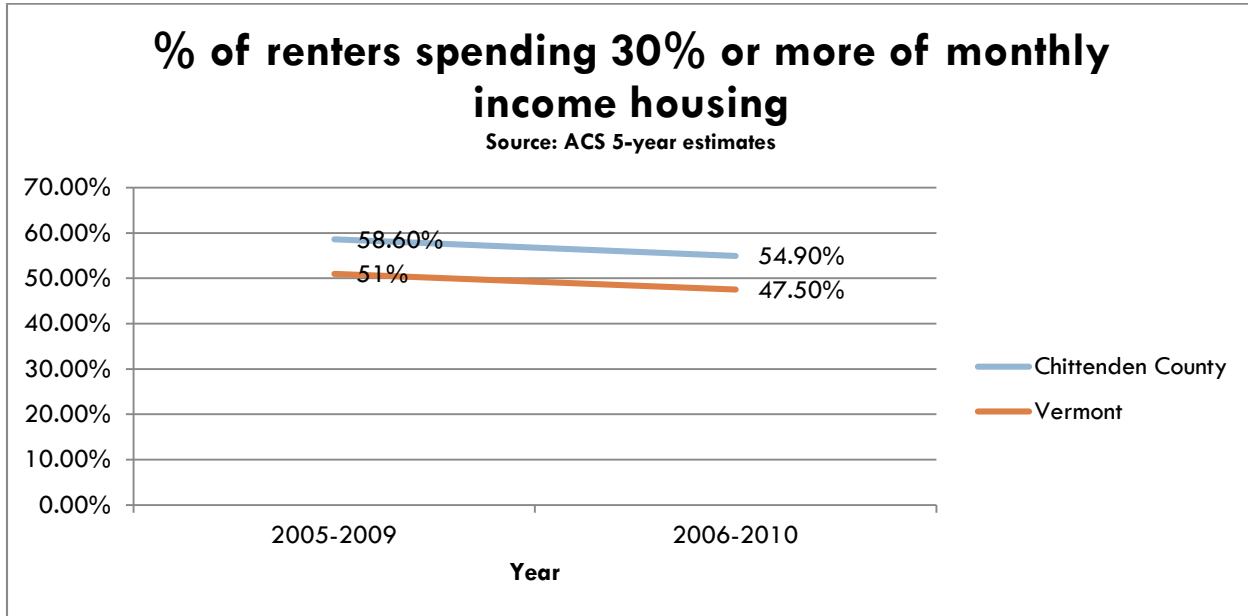
Housing Goal: Increase the opportunities for safe, decent, energy efficient, affordable, accessible and fair housing for all types of households in diverse neighborhoods.

Key Issues/Trends/Insights

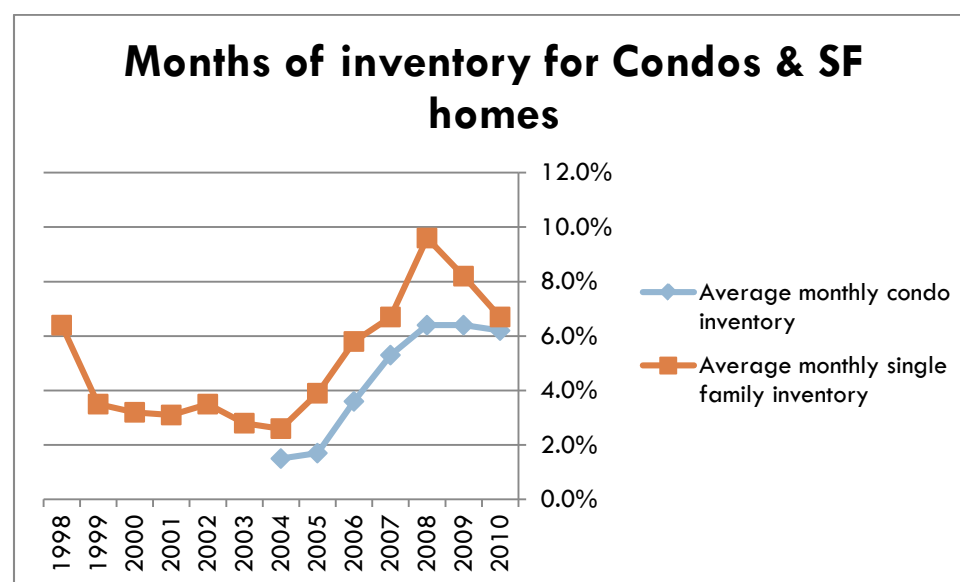
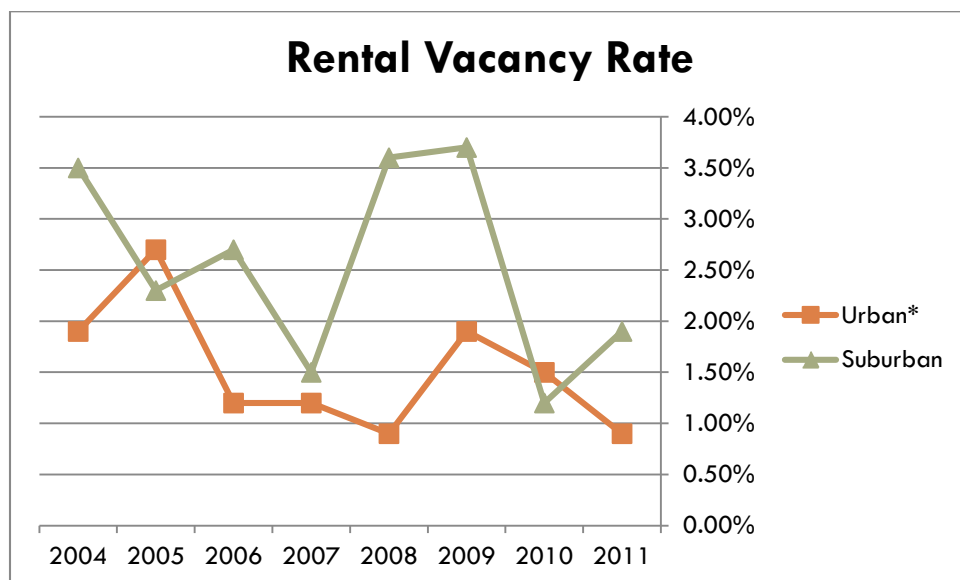
- Adequate and affordable housing is central to a sustainable community. A healthy community is made up of households with a variety of incomes and affordable housing is needed to satisfy residents' wide range of needs. Lack of affordable housing contributes to many social stresses, including homelessness.
- The financial burden of paying a mortgage, homeowners insurance, property taxes, utility expenses and other housing fees is unaffordable when they consume more than 30% of the household's income. Further, paying more than half of income on housing expenses creates a severe strain on a household's budget; and these households are at much higher risk of foreclosure, eviction, homelessness, and frequent moving—all of which harm residents and the community. Approximately 4,000 owner households and 6,000 renter households living in Chittenden County pay more than half of their incomes for housing expenses.
- Approximately 500 people in Chittenden County were homeless during the January 2011 one-night count, clearly demonstrating gaps in the access to the types of housing options and services that could have kept these people housed.
- Some Chittenden County residents do not have equal access to housing opportunities in Chittenden County. The county's growing population of non-White residents, residents with disabilities, and single-parent families are more likely to experience poverty and less likely to become homeowners than other types of households. The availability of sufficient housing options for all residents, regardless of their race, disability status, or membership in other protected classes, ensures that residents have an opportunity to reach their potential as contributing community members.
- Nearly 60% of the county's housing stock was built before 1980—when lead-based paint was widely used, most home insulating, heating and energy technology was inefficient, and building and accessibility codes did not yet accommodate all types of residents.
- More than 11% of Chittenden County residents commute 25 or more miles to work—with potential adverse effects on both the health of the driver and the environment. In addition, with the exception of some neighborhoods in Burlington and Winooski and a few other blocks in the county, the vast majority of the county's working residents pay more than 45% of their income for the combined cost of housing and transportation.
- The county's population is expected to continue growing, albeit at a slower pace than in the past decade. Between 2010 and 2015, demand for additional owner homes is likely to be lower than prior levels of home building in the county. However, demand for renter homes is predicted to increase. Tools to ensure adequate housing supply for renters include renovation and conversion of existing buildings as well as new construction.

Key Indicators

- **% households spending over 30% of income on housing expenses (owners and renters).**



- **Metro and non-metro vacancy rate for renters and owners.** Note: For rental data, Urban is defined as Burlington and Winooski. Target: set threshold of 10%. Source: VHFA Allen and Brook report.



- **# of housing units and average assessed value of each unit by zoning district or Planning Area.** Source: Spatial analysis of geographic distribution and assessed value of housing stock. Source: UVM Spatial Lab, CCRPC

For Additional Information and Actions

- See Housing Analysis Report Analysis Report, located in document appendix
- See Collective Impact Strategy X,Y,Z for implementation steps

2.14 Transportation

Transportation Goal: Provide accessible, safe, efficient, interconnected, secure, equitable and sustainable mobility choices for our region’s businesses, residents and visitors.

Key Issues/Trends/Insights

- Congestion is worsening with potential negative consequences on economic development, the environment and human health.
- Higher fuel prices will lead to an increase in the percentage of household income needed to meet transportation expenses; rural residents are disproportionately impacted by household transportation costs.
- Continued low density development in rural areas will increase Vehicle Miles Traveled (VMT) and likely increase potentially harmful air pollutants and greenhouse gases.
- The lack of safe, reliable, and complete connections within the transportation system and between transport modes, reduces access to employment, social, economic, and recreation opportunities; and limits access to basic needs by means other than a personal vehicle.
- More robust investment in transportation options – transit, walking/biking, Carshare and rideshare – could reduce social exclusion, improve public health, and enhance the economic well-being of our residents, businesses and visitors.
- While access to public transit is widely available in the region’s more urbanized areas, there are some suburban and rural populations lacking that mobility option.
- Roadway condition of over half of the arterial highway mileage in Chittenden County is rated poor or worse.
- Transportation costs exceed our capacity to maintain, operate, and improve our current system. The MTP must be fiscally constrained to the funding anticipated for investment in the planning horizon through 2035. The following chart outlines the funds anticipated to be available for the next 25 years. The chart highlights the fact that we will not be able to afford everything that may be needed and that investments will need to be selected which promote future sustainability.

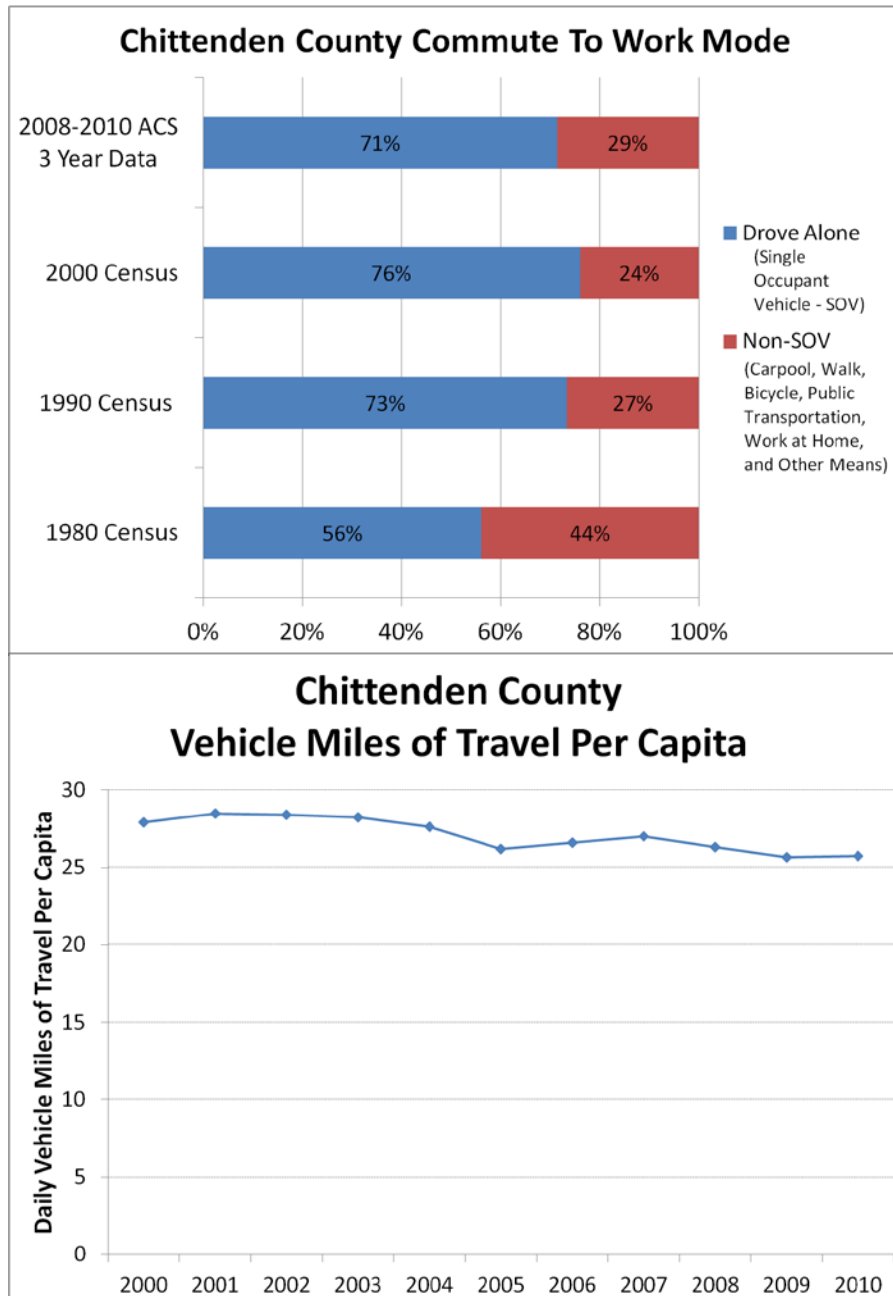
<i>FUNDING CATEGORY CALCULATIONS</i>	<i>COSTS (IN MILLIONS OF 2010\$)</i>
Estimated Cost of all anticipated projects (100%) Transportation “Need”	\$596.90
Estimate of Future Federal funds (80%)	\$941.60
Cost to Maintain plus \$50.6M for committed TIP projects (80%)	\$653.00
Balance for New Projects (80%)	\$288.60
Balance with Match Included (100%)	\$360.75
Funding Deficit vs. “Need” (100%)	(\$236.15)
Federal Funding Deficit (80%)	(\$188.90)

- Some population segments – youth, the elderly, minorities, refugees, the poor – lack access to viable public and private transportation options.

- The 2008-2009 Scenario Planning Process undertaken by the Chittenden County Metropolitan Planning Organization resulted in a clear surveyed preference for future growth to be concentrated into higher density, mixed use centers – this preference is also demonstrated in the policy direction outlined in municipal plans and ordinances throughout the county. Directing transportation investments to serve mobility and accessibility in compact settlements will result in a more cost effective and efficient transportation system.
- Utilization of the ECOS Criteria rating system to select projects for the 2035 planning horizon of the Metropolitan Transportation Plan (MTP), the four year Transportation Improvement Program (TIP), to prioritize projects as part of the VTrans annual Project Prioritization, and to select planning projects for annual funding as part of the Unified Planning Work Program (UPWP) process would advance projects which would reflect the ECOS goals.

Key Indicators

- **Percent of workers commuting by non-Single Occupant Vehicle (SOV) mode (walk, bike, transit, carpool, telecommute).** Recent data suggests the reversal of a negative trend going back at least 30 years and probably longer. See chart on next page.
- **VMT Per Capita.** Less driving per person can have positive environmental, transportation, economic, health and social impacts. Our most recent data may portend a positive trend. See chart on next page.



- **Adequate Infrastructure Maintenance Investment Ratio** = amount your city/state/region is spending on infrastructure repair relative to the amount of use of your infrastructure in need of repair or replacement (measured by category: bridges, roads, transit, etc.) (requested by Partnership for Sustainable Communities)

For Additional Information and Actions

- See Historic Development and Future Land Use Transportation Analysis Report Analysis Report and MTP Supplemental Documents, located in document appendix
- See Collective Impact Strategy X,Y,Z for implementation steps

2.15 Infrastructure

Public Water Supply Goal: Ensure adequate public water supply within service areas.

Key Issues/Trends/Insights

- An adequate water supply is needed to accommodate existing residential and business customers as well as future users in areas planned for growth.
- The majority of the residents in the County get their drinking water from Lake Champlain, via two utilities: the Champlain Water District (CWD) and the City of Burlington's DPW Water Division. In addition, Richmond, Hinesburg, Underhill and Jericho have smaller public water supply utilities.
- Both Champlain Water District (CWD) and the City of Burlington's DPW Water Division utilities have received Phase III Director's Awards from the USEPA's Partnership for Safe Water Program, and Champlain Water District was the first in the United States to receive the Phase IV Excellence in Water Treatment Award in 1999, and is one of 11 in the US to presently maintain this award status following required annual reviews. While the quality and quantity of our water supply is not a challenge, the treatment and infrastructure is not without cost.

Key Indicators

- **Current Capacity v. Capacity Needed for Growth Projections in Service Areas.** Source: Water Utilities and Municipal Growth Projections. Data exists, it just needs to be collected. Include a map of the service areas.

For Additional Information and Actions

- See _____ Analysis Report Analysis Report, located in document appendix
- See Collective Impact Strategy X,Y,Z for implementation steps

Public Wastewater Goal: Ensure adequate infrastructure for wastewater treatment in areas planned for growth and service areas.

Key Issues/Trends/Insights

- Adequate waste water capacity is needed to accommodate infill and redevelopment in areas planned for growth. Public waste water capacity is often a limiting factor to growth and is therefore encouraged in areas planned for growth, and discouraged in the Rural Planning Areas (unless needed for public health reasons).
- Currently, there are 11 municipal wastewater treatment plants in the County; together they have a treatment capacity of 19.05 million gallons per day (MGD) (Source: State of Vermont Wastewater Treatment Plant permits). As of 2000, CCRPC estimated an aggregate reserve capacity of 3.7 MGD. Attention must be paid to available capacity to support areas planned for growth.
- Our water bodies provide important habitat for a range of aquatic life, birds, and other wildlife in addition to having recreational, commercial and industrial uses. These water bodies are also the receiving environment for effluent from waste water treatment plants. The Water Quality section in the Natural Systems section deals with the quality

of the treated water. Maintaining compliance with Vermont Water Quality Standards is necessary.

Key Indicators

- **Current Capacity v. Capacity Needed for Growth Projections in Areas Planned for Growth** Source: Waste Water Utilities (CCRPC will update) and Municipal Growth Projections. Data exists, it just needs to be collected. Include a map of the service areas.

For Additional Information and Actions

- See _____ Analysis Report, located in document appendix
- See Collective Impact Strategy X,Y,Z for implementation steps

Stormwater Goal: Manage stormwater runoff affordably and effectively.

Key Issues/Trends/Insights

- Effective storm water management is a result of both regional development patterns and site specific strategies. “The EPA examined storm water runoff from different development densities to determine the comparative difference between scenarios. The higher-density scenarios generated less storm water runoff per house at all scales and time series build-out examples” (*Protecting Water Resources with Higher-Density Development*. EPA, Publication # 231-R-16-001). Therefore, high-density residential development concentrated in areas planned for growth will produce less storm water runoff (than a low-density development pattern) and will allow us the opportunity for more efficient management of that runoff.
- Site specific storm water can be managed in a variety of ways; Low Impact Development (LID), Green Infrastructure, and Environmental Site Design (ESD) (sometimes referred to as Better Site Design) are a few strategies.
- Storm water management is regulated via the National Pollutant Discharge Elimination System (NPDES) permits. Permits are issued for individual sites, and for Municipally Separate Storm Sewer Systems (MS4). MS4s essentially include all systems designed or used by a public entity for collecting or conveying stormwater. In Chittenden County, nine municipalities and three public entities are subject to MS4 permitting: Burlington, Colchester, Essex, Essex Junction, Milton, Shelburne, South Burlington, Williston, Winooski, Burlington International Airport, UVM and VTrans.
- Our water bodies provide important habitat for a range of aquatic life, birds, and other wildlife in addition to having recreational, commercial and industrial uses. These water bodies are also the receiving environment for storm runoff from urbanized and agricultural areas. The Water Quality section in the Natural Systems section deals with the quality of the treated water. Maintaining compliance with Vermont Water Quality Standards is necessary.

Key Indicators

- **% of impervious area that is under storm water management.** Source: ANR, TMDL. Total Impervious area is being developed using remote sensing/GIS analysis. Data may be available in approx 1 month. Then on approx 5 year intervals.

- **# acres of impervious surface by planning area.** Source CCRPC. Data would need to be developed. Could be done with the State's data mentioned above.

For Additional Information and Actions

- See _____ Analysis Report, located in document appendix
- See Collective Impact Strategy X,Y,Z for implementation steps

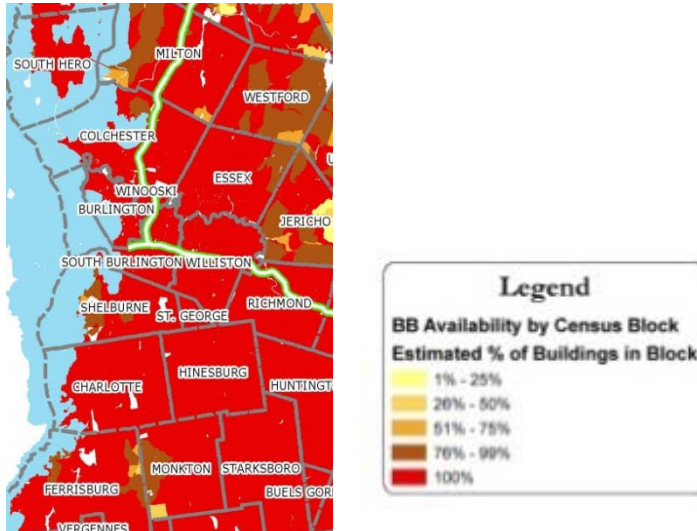
Communications Goal: Ensure equal access to appropriate and affordable communication services for all.

Key Issues/Trends/Insights

- Broadband technology is widely available in Chittenden County, but coverage is not 100%. As of December 2011, approximately 81% of the land area in the County has access to Broadband (768/200 kbps). Approximately 6% of the land area has projects that are in progress; and 13% of the land area are non-populated areas. The quality and cost of advance telecommunications (voice/data) services are on par with urban service availability and pricing.
- While, Chittenden County has the strongest telecommunications network in the state, there is room for improvement and the services must continue to improve. Service levels available to homes and businesses, access and affordability must continue to expand in order to support other goals of the ECOS project. As measures of economic development, social capital and overall health begin to include access and affordability of applications and the devices that enable them, Chittenden County has an opportunity for leadership within the state.
- Because Chittenden County is the most heavily developed part of the state in terms of both population and business there is a particular focus on upgrading telecommunications in the County. While, the County already has a significant fiber optic capability (some currently dark) with many businesses already having T-1 capability, the technology is constantly improving and we must keep up. It will be important to ensure that we are on par with other urban areas in the realm of number of service providers, service tiers, and affordability.

Key Indicators

➤ **Broadband Availability by Census Block:**



- In 2007, 89% of buildings are within 500' of a public street serviced by cable and 86% of buildings are within a DSY coverage area. **Data will be updated, 2011 data is now available.**

For Additional Information and Actions

- For more information see the Broadband Action Plan
- See Collective Impact Strategy X,Y,Z for implementation steps

Waste Reduction Goal: Indicator report: Decrease materials consumption and increase the use of renewable resources, resource recovery and recycling.

Key Issues/Trends/Insights

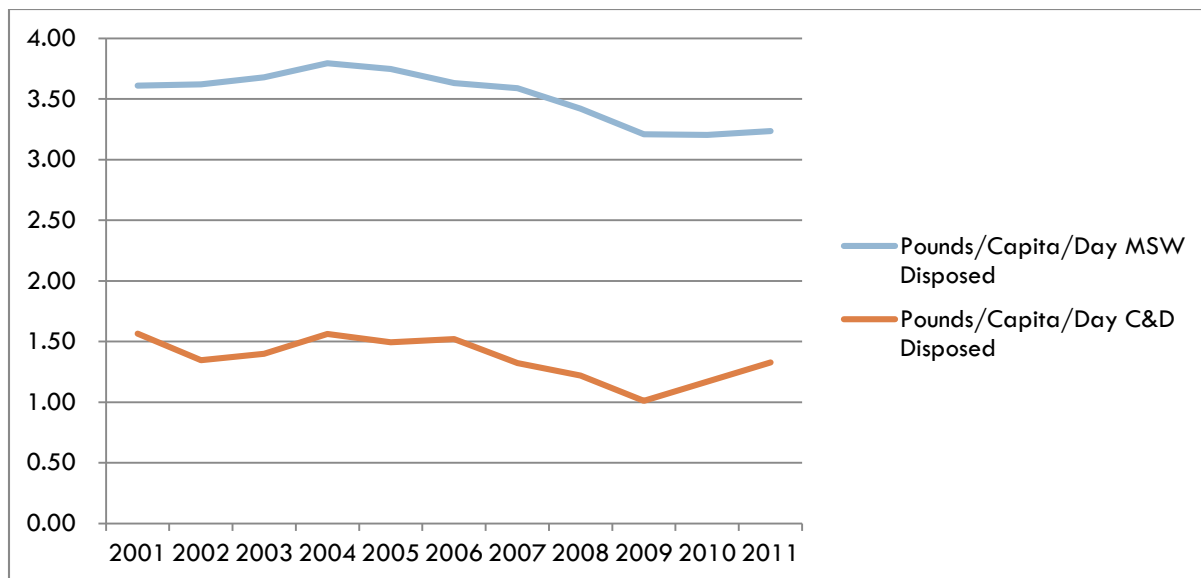
- A sustainable society minimizes the amount of waste it generates. It uses materials efficiently-investing in products and services that can be used over and over again instead of being used up. Recycling can limit the amount that gets buried in landfills or incinerated.
- Tons of refuse disposed in Chittenden County has been declining over the last 5 years, while the amount of recycled materials has increased. We would like to see these trends continue in this same direction.
- Some of the challenges in reducing disposal of materials and increasing diversion of materials include the lack of recycling markets for many materials, the need for continuing education, an inconvenient residential composting collection system, and inadequate incentives for many people. In addition, the current solid waste collection system is inefficient and results in higher costs and emissions of pollutants as well as greater wear and tear on roads than in a consolidated collection system.
- CSWD only accepts a new material for recycling when there is more than one stable market for it and if the location of the market makes economic and environmental sense (i.e.

depending on the material, it may not make sense to ship to California or to international destinations). Because of population turnover, particularly in Burlington, it is challenging to keep residents educated on what can and can't be recycled here. In addition, it is estimated that 27% of the municipal solid waste sent to the landfill is comprised of recyclable materials and 32% is comprised of organic materials that could be composted (Source: CSWD *Estimate of the Components of Solid Waste Disposed for FY 2011*). There is very limited curbside pickup for residential organics, and if you don't have a place to compost in your yard, you may not want to collect it. Organics can be delivered to CSWD drop-off centers, but this is not convenient for most households. Organics collection for businesses and institutions is available, but many organizations do not participate for a variety of reasons (e.g., extra time required, need for training, high staff turnover rate, the "yuk" factor). Greater incentives are and/or a more convenient program is needed to increase participation in composting. Additional incentives, such as unit-based trash rates, would help increase diversion of recyclables. Finally, there are many haulers serving the same streets and picking up once a week when trash bins may not be full. Having haulers designated to specific routes and picking up trash once every two weeks may increase efficiency.

- House Bill 485 passed the legislative session in 2012 and became law. The act establishes universal recycling of solid waste and sets deadlines for when certain materials must be recycled, and therefore would be banned from trash disposal. The new law states: 1. Metal cans, plastic, paper and cardboard must be recycled starting July 2014; 2. Leaves and yard waste must be recycled starting July 2015; and food waste must be recycled (composted) starting in 2016.

Key Indicators

- **Pounds of Waste Disposed/Capita/Day for MSW (Municipal Solid Waste) and C&D (Construction Debris).**



Source: Chittenden Solid Waste District, Waste Diversion Report: Calendar Years 2001-2011

For Additional Information and Actions

- For more information see CSWD's Annual Reports
- See Collective Impact Strategy X,Y,Z for implementation steps

2.16 Energy

Consumption Goal: Reduce energy consumption through energy conservation and efficiency.

Key Issues/Trends/Insights

- Energy consumption in Chittenden County shows an overall increase in total energy usage in parallel to the population growth that the county has been experiencing. Trends vary by fuel type and sector (residential, commercial and industrial, and transportation).
- The per household or per employee energy consumption for several fuel types has shown a decline over the last 20 years, consistent with improvement in efficiency and more stringent standards.

Key Indicators

Annual electric savings (MWh and MW) by sector and location. **Source:** http://www.encyvermont.com/about_us/energy_initiatives/vt_town_energy.aspx

- Annual natural gas savings (therms). **Source:** <http://www.vermontgas.com/pdf/VGS%202010%20Annual%20Report.pdf>
- Annual fossil Fuel savings (MMBTU)
- Total Energy Savings. **Source: VEIC and Vermont Gas.**

	2009	2010
Electricity Savings - Efficiency Vermont (MWh)	25,406	
Natural Gas Savings - Vermont Gas (MCF)	62,000	82,151
Total MMBTU of energy savings	148,685	82,151

- **Percent of Energy Saved through Efficiency:**

Total Energy Use	16,986,063
Total Energy Savings	148,685
	0.88%

For Additional Information and Actions

- See Energy Analysis Report, located in document appendix
- See Collective Impact Strategy X,Y,Z for implementation steps

Renewable and Distributed Energy Goal: Encourage the generation of renewable energy sources that are distributed and produced in an environmentally responsible manner.

Key Issues/Trends/Insights

- Fossil fuel combustion increases the atmospheric concentration of carbon dioxide and other greenhouse gases, which are the causes of global climate change.
- Climate change will have profound impacts on the environment, public health, infrastructure and the economy.
- The outflow of energy dollars serves as a drain on the state and Chittenden County's economy.

Key Indicators

- Number and capacity of sites that generate energy with -photovoltaics - hydropower - solar thermal/hot water - biomass - wind located in Chittenden County. Source: <http://www.vtenergyatlas.com/>

Oct. 12, 2011	# of sites	Capacity (kW)	Capacity (Thousand Btu)	Tons of wood consumed
Solar Photovoltaics	297	6101		
Solar Thermal	42		2975	
Combined systems	12	86	588	
Wind	28	491		
Hydro	6			
Wood Thermal ¹	9			3900
Wood Electric ²	1	50000		665760

1 Thermal capacity not recorded, only tons of wood consumed as a proxy for system size is available

2 McNeil Power Plant

- **% of electricity generated by renewables not owned by utilities.**
Source: <http://www.vtenergyatlas.com/>. Data downloaded on Oct 12, 2011.

Chittenden County Estimated kWh private renewable generation from solar and wind (MWh)	667
2009 Chittenden County Electricity Use (MWh)	1,074,097
Private renewable electricity as a percent of Chittenden county use	0.06%

For Additional Information and Actions

- See Energy Analysis Report, located in document appendix

- See Collective Impact Strategy X,Y,Z for implementation steps

Energy Production, Transmission & Distribution Goal: Maintain and develop energy production, transmission, and distribution infrastructure in Chittenden County that is efficient, reliable, cost-effective, and with lower impact on the natural environment.

Key Issues/Trends/Insights

- Reliable, cost effective and environmentally sustainable energy availability is critical to support the economy and households in Chittenden County.
- Currently, reliability and cost are good in Chittenden County relative to New England. However, there are some constrained substations in Chittenden County. It will be beneficial to work with electric utility customers to reduce their demand in order to defer substation upgrades.
- Chittenden County spends about \$147 million on non-transportation residential energy, \$169 million on residential and commercial transportation, and \$301 million on commercial and industrial non-transportation energy. In total, \$617 billion was spent on energy in Chittenden County in 2009 (25% of Vermont's total).
- **Add data about per household and employee spending on energy-VEIC's report.**

Key Indicators

- **Electricity Reliability – power outages.** Source: Data is not currently collected. Electricity providers would need to be surveyed.
- **Line efficiency.** Line losses quantify the energy lost when transporting electricity from generation to the end user. VEIC assumes 10% however that has not been verified. Possible sources are VELCO and DPS I was unable to quickly locate a source for this number.
- **Efficiency savings from geo-targeting.** During 2012-2014, Efficiency Vermont is going develop special programs to target electric utility customers to reduce their demand in order to defer substation upgrades. This process is still in process so goals have not been set.
- **Vermont Fuel Prices vs. Demand.** Total Energy Costs. Source: VT Energy Plan. Not sure if this can be disaggregated for the County.
- **% of income spent on energy and utility costs.** This is listed under the Housing Goal.

For Additional Information and Actions

- See Energy Analysis Report, located in document appendix
- See Collective Impact Strategy X,Y,Z for implementation steps

2.17 Conclusions

Based on the summary of the analysis of data and key issues related to our community arranged by topic presented in this chapter and the analysis reports (see Appendix __) and the Interim Indicator Report (see Appendix __), below is a summary of key conclusions. In general, while our quality of life is high relative to most of the country there are still significant areas in which we need focused efforts to improve. We have further to go to address emerging trends that threaten our quality of life.

This section summarizes the trends identified above that indicate the areas that require improvement to realize our goals. These are not prioritized, but rather follow the outline of discussion above. The strategies for improvement are discussed in Chapter 3.

NATURAL SYSTEMS

1. Ecological Systems

a. Habitat –

Subdivision, parcelization, fragmentation and conversion of forestland have significant impacts on habitat, water quality, biodiversity and overall health of an ecosystem. Chittenden County continues to see forest fragmentation and loss of forest habitat largely due to mounting development pressures. 53% of Chittenden County is forested based on USGS National land cover data. Forest cover in Chittenden County has decreased by 4,666 acres or 1.17% between 1992 and 2006 based on USGS National land cover data. Between 1978 and 1993 Chittenden County lost 37,307 acres or 25% of its core forests. Mapped wetlands in Chittenden County decreased by approximately 4,954 acres or 1.25% from 1992 to 2006. There is a disconnect between Municipal Comprehensive Plans that call for protection of natural systems, and the Zoning Regulations that lack protection of these resources. Only 5% of our road miles are given a score of “good” for wildlife linkages (See Natural Systems, Landscape Level map); this presents a problem to our as we fragment habitats. We are steadily increasing the amount of conserved land **Figure __ need data**. However, our habitats continue to be threatened by large lot rural development which also increase transportation and energy costs. **Figure __**

b. Water Quality –

Average phosphorus levels have remained constant in recent years in Lake Champlain but are still very high, and are deteriorating water quality and aquatic ecosystems in some areas (e.g. Mallets Bay). While only 4% of stream miles in Chittenden County are on Part A of the State’s 303d Impaired Waters List, there are many other stream segments that have yet to be assessed. While CCRPC has found that the majority of the stream segments in the County are protected through flood hazard regulations and stream buffer setbacks (however, we do not know how much of these riparian areas are actually vegetated) these regulations can only be used to limit development going forward and agricultural operations are exempt from local review. With increased

development stormwater runoff will increase and it is imperative that stormwater is managed in such a way as to not further impair our water bodies.

c. Air Quality –

While Chittenden County's air quality meets current National Ambient Air Quality Standards (NAAQS) maximum acceptable pollutant levels, ground-level ozone levels are close to the current standard and fine particulate pollution (PM_{2.5}) has approached the standard in recent years. The number of days we are air quality noncompliant continues to increase. The majority of our greenhouse gas emissions comes from the transportation sector.

2. Scenic and Recreational Resources –

While these resources are abundant today ([See Natural Systems Map](#)), similarly to wildlife protection, there is low compatibility between municipal plan recommendations for natural and scenic resources and the implementation of those recommendations through zoning bylaws and subdivision regulation.

3. Working Lands –

While we are steadily increasing the amount of conserved land (in 2009, 34% of privately owned land in Chittenden County was enrolled in Use Value Appraisal; and [??%](#) of land was conserved) there are shifts occurring in agricultural enterprises. The Agricultural Census has shown a decrease in farmland acreage and an increase in the number of farms over the last 20 years; and a shift in a variety of business practices. Looking forward we will need to: 1. Continue protection of agricultural and forest lands by limiting development for non-working land uses in the Rural Planning Areas; 2. Adjust our regulations and programs to ensure that we are not unnecessarily prohibiting agricultural enterprises from diversifying; and 3. Continue efforts to ensure that agricultural enterprises remain economically viable (including tax programs). However, our habitats continue to be threatened by large lot rural developments which also increase transportation and energy costs. [Figure __](#)

ECONOMIC INFRASTRUCTURE

4. Economy –

- a. Employment - Our unemployment rate has remained low ([Figure __](#)) during a severe national economic crisis and remains at about [4.5%](#) (March 2012). However, there is a significant amount of underemployment. [Data?](#)
- b. Employer Clusters - We have a strong innovation economy, but increasing the labor force skills in the subjects of science, technology, engineering and math (STEM) remains a concern. ([Are we above or below national standards per capita for STEM?](#)) [Figure __](#)
- c. Entrepreneurship – [need data](#)
- d. Economic Diversity – Economy is fairly diverse, but our manufacturing sector is overly reliant on one large employer, IBM. [More, other?](#)
- e. Economic Development Location - The lack of available office and industrial sites and buildings with adequate transportation and waste water infrastructure are a concern. [Is our vacancy rate low? High? Does data support this?](#) Suburban

- employment sites also create issues for low income employees in terms of transportation access.
5. Household Financial Security – Our incomes have remained stagnant during the economic crisis, with the median household income at approximately \$60,713. However, the buying power of the average Vermonter has stagnated over the past 25 years **data?** The income gap between African American families and white families is significant (\$40,000 vs. \$60,000) **Figure ___**. The cost of housing (and housing and transportation taken together) is a significant issue in our region for employers and lower wage households **data**.

SOCIAL COMMUNITY

6. Education, Knowledge and Skills –
 - a. Early Childhood Education – **add... data**
 - b. K-12 – **add...** In general, our students are performing well **data**. However, there are significant concerns regarding basic job skills upon graduating high school for some students **data**. **Cost versus result? Drop-outs increasing?**
 - c. Educational Attainment – **add... data**
 - d. Career Training - The educational system can be better integrated with our economic development strategies, particularly for science, technology, engineering and math (STEM) related careers. **data**
7. Health –
 - a. Health Behaviors - We are generally healthier than the rest of the country **data**. We are increasing our access to healthy and local foods **data**. Despite an obesity rate that is below the national average, obesity in Chittenden County is trending upward from a 3 year average of 14% in 2000 to 20% in 2010. Other modifiable risk factors such as poor nutrition, sedentary lifestyle & tobacco as well as obesity are the greatest contributors to burgeoning chronic disease rates. **DATA - Tobacco use has decreased, drug use has increased, access to processed foods and high fructose corn syrup sweetened consumer products has increased. Poverty is a strong predictor of obesity.**
 - b. Environmental Factors – **data**
 - c. Access to Quality Health Services - **% without health insurance – changing?**. Support for new Americans with regards to language barriers, cultural misunderstanding, their communities, understanding healthcare and insurance systems is needed. **DATA**
8. Public Safety & Criminal Justice – Our rates of violent and property crime are significantly below national averages **data**. **Rates of violent crime are increasing along with drug use)** **Data figure ___** Number of Vermonters in prison is at an all time high **data**. More focus is needed on our ability to withstand natural disasters as our weather continues to have more severe and frequent storms
9. Civic Engagement - In general, Chittenden County and Vermont's history of town meetings and open local government have been positives. Individuals can get involved and make a

difference. The recent merger of CCRPC and CCMPO is a step in the right direction in breaking down silos of overlapping jurisdiction and government entities.

10. Social connectedness – Our residents have many opportunities to engage with their community through volunteering and many cultural events. Data?

BUILT ENVIRONMENT

11. Land Use – Recently we have seen improvement in the location of new development being consistent with our municipal and regional plans (Figure ____). Over the last 40 years we have been building in our rural areas at double the rate we did before 1970. In order to achieve compact walkable communities, we need to increase investment in our currently developed communities. The multi-layered and often overlapping permitting system between municipal and state agencies can be improved to reduce redundancies, costs, and time while focusing development into our centers.
12. Housing – The value of our housing has remained flat and did not decrease like other regions of the country (Figure ____). Housing affordability remains a problem not just for our residents, but also for employers trying to recruit skilled employees to our community. Data This issue is felt primarily by marginalized populations (low income and people of color). # of housing units needed, by price/type
13. Transportation – Transportation – Transit ridership has increased by 63% for the period 2003-2012. Vehicle incident (crash) rates have decreased by data. Our rate of driving alone to work increased from 56% in 1980 to 76% in 2000 (Figure ____). Many in our community do not have access to transit services or reliable automobiles, or the licenses and insurance needed reducing transportation access for work, health care, healthy food, child care and education. Zero vehicle households increased by 60% between 2000-2010 from 4,012 to 6,414. The average number of vehicles per household in owner occupied households decreased from 1.95 in 2000 to 1.94 in 2010 while the average number of vehicles per household in renter occupied housing decreased from 1.32 in 2000 to 1.21 in 2010. The financing of transportation in general is overly reliant on the gas tax which is decreasing in value as state and federal gas tax rates have not increased in XXX years and revenues are generally declining due to increased fuel efficiency and declining vehicle miles traveled. data The local support of transit being dependent on local property taxes is also an issue, currently only 8 towns participate as members of CCTA.
14. Infrastructure –
 - a. Public Water Supply - We have adequate supplies of water. data
 - b. Public Wastewater – As of 2000, CCRPC estimated an aggregate wastewater reserve capacity of 3.7 MGD. CCRPC should compare current reserve capacities with recent growth projections to adequately plan for necessary sewer upgrades in areas planned for growth.
 - c. Stormwater- Stormwater management strategies need to be implemented in the planning and design of all types of land use and development to improve water quality. MS4 communities are making significant investments in storm water infrastructure. Paying for these improvements is a significant issue.

- d. Communications - As of 2011, 81% of the County's land area has access to broadband (768/200 kbps). Broadband technology is constantly improving and we must keep taking advantage of these opportunities.
 - e. Waste Reduction - The County has been decreasing the waste disposed in landfills through recycling programs and should continue this trend. data
15. Energy – Reducing the demand for, and cost of, fossil fuels will reduce costs, air pollution and green house gas emissions. data
- a. Consumption - we are becoming more efficient with our use of energy data
 - b. Renewable and Distributed Energy - increasing the production of renewable energy. Figure __ data
 - c. Energy Production, Transmission and Distribution – add discussion... data

Increasing the development density in the Center, Metro, Suburban, Village, and Enterprise Planning Areas will help the County to achieve many of the goals for the built environment. Overall Chittenden County is moving in the right direction of developing policies that encourage more growth in these areas. Chittenden County contains 10 Villages, 2 Downtowns, 2 Growth Centers, 2 New Town Centers, and 1 New Neighborhood that are part of the State Designation Program that promotes smart growth principles. In addition, a recent public opinion survey indicates that people do want to live in more walkable compact areas.

Additionally, higher density in these areas improves mobility, accessibility, affordability, and health. We need higher density development areas to support continued use of transit, car sharing, walking, and bicycling. This type of development will help the County to continue to decrease vehicle miles traveled (VMT) per capita, increase non-single occupancy vehicle (sov) modes, and decrease greenhouse gas emissions. Shifting our mode from sov to non-sov will not decrease emissions alone. A major switch from fossil fueled vehicles to electric plug-ins is critical to meeting both state and regional climate action strategies.

Focusing growth in the appropriate planning areas is also a cost effective approach to increasing the supply of affordable housing and reducing energy consumption. Much of the recent housing in the Center Planning Areas has been built as multi-family units that are suited for a mix of income types. Multi-family housing also has characteristics that make it more energy efficient including smaller sizes per unit and less exterior exposure. Energy efficiency measures applied to all housing types have the benefit of providing all types of households with cost savings, which makes them less vulnerable to fluctuations in energy prices. Additionally, to achieve higher, mixed use densities it is essential that these areas are well served by wastewater treatment, stormwater treatment, solid waste disposal and recycling, and broadband technology.

The demand for more walkable neighborhoods and the policies that create them are beginning to change the built environment of Chittenden County. Decisions for how we create denser mixed use communities are primarily made at the local municipal level of government. Therefore, municipalities are encouraged to apply ECOS goals in their development decision making process. The more specific implementation of the ECOS goals will vary throughout the County as municipalities consider their own unique needs and relationship to the region as a whole.

Two over-arching issues simmer throughout many of the topic areas:

Financing – Government resources and programs are stretched by increasing demands. A focus on prioritization, efficiencies, partnerships, and innovative governance or financing systems is needed to more effectively deliver needed services. Multiple levels of local, regional and state governance operating independently inhibit efficiencies and integrated solutions to solve complex problems.

Disparities – In 2009, 11.5% of Chittenden County residents lived in poverty. Disparities in educational results, health, incarceration, and income exist for people of color and low income populations. DATA See figures __, __, __, __ Equity means just and fair inclusion in a society where all can participate meaningfully and prosper (from PolicyLink). Achieving equity needs to become central in each sector, implemented with a strategic plan, a metrics system to measure benchmarks and a timeline.

CHAPTER 3- Plan Priorities & Implementation

3.0 Introduction

In this chapter, we transition from discussing the data and trends we reviewed in Chapter 2 to discussing our priorities for addressing the challenges that we face. The challenges are multi-faceted and often inter-related. For this reason, we are breaking from discussing issues by topic and focusing on cross-cutting solutions.

3.1 Collective Impact Strategies Concept

Making our ECOS goals reality will require a comprehensive approach. These improvements will take time and require new or adjusted priorities, but these are necessary steps toward becoming the region we want to leave to future generations.

The ECOS Project has attempted to be very broad and inclusive in both the process of developing this plan and in comprehensively addressing the major issues within the Chittenden County community. We have developed a vision, principles and goals in Chapter 1. We have analyzed our community in relation to these goals and identified areas for improvement in Chapter 2. Having identified areas for improvement we now need to focus on the strategies and actions that will have positive impact. This is the focus of Chapter 3.

Rather than create the typical planning document with a bland listing of strategies, we need to go further to accomplish the outcomes identified. Developing a structured process that includes a common agenda, shared data collection and continuous communication will reinforce the role of all participants and allow us to achieve collective impact. Collective impact is the commitment of a group of important actors from different sectors to a common agenda for solving a specific social problem. These sectors include the public (state, municipal and regional), business, and non-profit. If we do this well, we can achieve improved outcomes without the need for additional public expenditures.

*We need to work
together to achieve
collective impact*

The graphic on the next page provides a picture of how this will work.

Results Based Accountability = ECOS COLLECTIVE IMPACT

COMMUNITY ACCOUNTABILITY

RESULT: What do we want?

ECOS Goals
ECOS Plan Chapter 1

BASELINE INDICATOR & STORY:

How do things look? Key issues

- INDICATOR over time (baseline & projection)
- 1-3 pieces of data that represent the status of this RESULT in our community
- Where aren't we achieving the goal?

ACCOUNTABILITY BOUNDARY

CROSS WITH INTENTION!

STRATEGIES

*contribute to the
RESULT (no
single strategy
is accountable)*

**COLLECTIVE IMPACT
STRATEGIES/ACTION PLAN:**

**WHAT WORKS: What will it take to
get the results we want? (Best
practices, Promising models,
Knowledge of community**

What do we propose to do?

By when?

With what resources?

**PARTNERS: Who are the partners
with a role to play?**

**OTHER
INFLUENCES**

**PERFORMANCE MEASURES (How much? How well?
Improvements to strategies/actions?)**

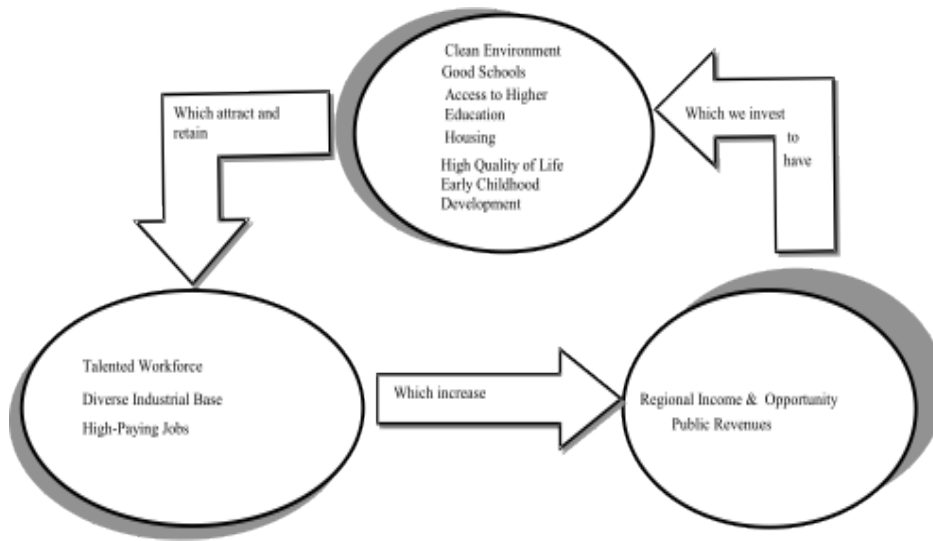
= Focus of ECOS Partnership/Indicator Committee

PROGRAM ACCOUNTABILITY

3.2 How to talk about our efforts

Some ways to think about what we want to accomplish (this needs lots more work...):

1. We want to improve our “Circle of Prosperity” This graphic was used in the 2005 CEDS.



2. Another way to think about our efforts is under the Health, Education, and Income categories since this has been a well developed categorization used by United Way.

Health (or Healthy Community)	Education	Income
Ecological Systems, Scenic and Recreational Resources, Working Lands, Health, Social Connectedness, Land Use, Housing, Transportation, Infrastructure, Energy, Cultural and Recreation Facilities	Education, knowledge, and skills	Economy, Household Financial Security,

3. We could also think about our efforts as addressing ECOS – Environment, Community, Opportunity, and Sustainability.
4. Or other communities have effectively talked about the 3 or 4 E's. Equity, Environment, Economy, Education.

In this draft, we have decided to not try to group our collective impact strategies, but instead seek more input as to what these strategies should be and then figure out the best way to talk about them with the broader public.

3.3 Draft Collective Impact Strategies

To focus our efforts on the identified needs of the community (see end of Chapter 2) we have identified seven (7) collective impact strategies that are high priority, cross-cutting, broad strategies. These strategies are shown in the table below with a comparison of which needs they will impact in a positive way. The next section discusses these broad strategies more specifically. It is important to note that these seven strategies are designed to focus our collective expertise on issues that need improvement. This list encapsulates those issues where more collective effort is necessary. It is not meant to be exhaustive or to undermine any steps currently underway to effect change.

Table XX – Collective Impact Strategies vs. Needs

these need to re-done and tied to conclusions at end of Chapter 2

– are they the highest priorities?

– are there better strategies that should be undertaken?

Collective Impact Strategies	Improvement Issue	Improvement Issue	Improvement Issue	Improvement Issue	Improvement Issue	Improvement Issue	Improvement Issue	Improvement Issue	Improvement Issue	Improvement Issue	Improvement Issue	Improvement Issue
1. Plan, zone, permit and build in our centers, urban areas, and villages for increased employment, housing options (including affordable rental), transportation options, energy efficiency, and recreational access												
2. Improve the safety, water quality and habitat of our rivers, streams and Lake Champlain.												
3. Decrease subdivision of, and increase investment in, farms, forests, other valued ecological lands, and local food												
4. Ensure opportunity for every person in our community to achieve optimal health and personal safety												
5. Improve education and workforce training												
6. Retain and increase jobs providing financial security												
7. Develop governance structures and financing systems to make the most efficient use of taxpayer dollars, reduce costs, and improve	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

engagement

3.4 Collective Impact Strategies and Partners

The specific strategies listed below (TBD) are proposed to address the high priority needs of the community. Many of them have been previously proposed or are being acted upon. However, they may need additional commitment or additional partners to achieve the desired outcomes. Together, they will serve as a strategic plan for the ECOS partners for the next 5 years.

When establishing action steps that focus on specific communities we must acknowledge the uniqueness of each community and resist a blanket application of strategies and actions.

At this point in the ECOS Plan process, the draft collective impact strategies need review and actionable efforts need to be identified to achieve collective impact. Proposed actions need to have the details determined with regards to all steps, partners and resources. A template form for that purpose is included at the end of this section.

ECOS Collective Impact summary form to be completed for each initiative.

ECOS Collective Impact Initiative #_:	
Related Goals	
■	
Background Information	
Major Action Steps and Schedule	
Action Steps	Schedule
1.	
2.	
3.	
4.	
5.	
Responsibility	
Primary:	Support:
Initiation	■

■ Implementation ■			
Resources Needed			
Funding:	Item	Amount	Possible Sources
	■		
Other:	■		
Performance Measures			
■			
Timeframe			
This Initiative is:			
<input type="checkbox"/> Short-term (1-2 years)		<input type="checkbox"/> Intermediate-term (3-5 years)	<input type="checkbox"/> Long-term (5+ years)
		<input type="checkbox"/> Continuing	
Additional Information			
1.			

3.5 Plan Monitoring

ANNUAL INDICATORS AND PROGRESS REPORT

In order to increase accountability for ECOS Plan implementation and population level results, we are proposing the following plan monitoring system. The system is intended to be tools through which the ECOS partners demonstrate results and continue to focus on collective impact.

It is likely that a memorandum of understanding will have to be developed and agreed to by the ECOS partners that commit to leading the collective impact strategies and to following through in monitoring our population level results and program level performance measures.

The population level results will be monitored on an annual basis in an Annual Indicator Report. This report will be guided by an ECOS Accountability Partnership made up of appointees of the CCRPC, GBIC/LCRCC, State Agencies, United Way, Champlain Housing Trust, Health Department Burlington District Office, and CVOEO???. This committee will be charged with reviewing the data and determining those results in which we are making positive progress and those in which more focused work is needed. 2-3 meetings are expected each year. An Indicator Technical Committee made up of staff from the above organizations will provide technical support and make recommendations to the ECOS Indicator Partnership. It is expected that this group will meet quarterly or as much as needed to produce the Annual Indicator and Progress Report each year. The first year will take more time to finalize the indicators.

Program level performance measures will be determined with the adoption of this Plan and included for each major strategy in the form at the end of the previous section. ECOS Partners must commit to reporting their progress to the ECOS Accountability Partnership so that individual program results can be monitored and reported as part of the Annual Indicator and Progress Report. Changes in collective impact strategies may be made as deemed necessary.

It is intended that the Annual Indicator and Progress Report be reviewed with each of the partners' boards to achieve maximum exposure and results from our collective actions.

3.6 Implementation Prioritization Criteria, Policies and Substantial Regional Impact

While the previous section highlighted our top needs in Chittenden County and strategies to address those needs, we recognize the need to remain steadfast on the full range of goals identified through the ECOS project. The following list of criteria:

1. Were established to prioritize transportation projects (for the MTP), economic development projects (for the CEDS) and ECOS implementation grants in order to ensure that limited financial resources will go to the projects that will have a high rate of return and move many ECOS goals in the right direction. The points identified in the criteria tables below were used to score and rank each of these projects. The prioritized MTP and CEDS projects list can be found in the appendix (TBD);
2. Will help guide CCRPC's Planning Advisory Committee (PAC) in determining whether the Municipal Plan's are compatible with this Regional Plan (upon request by the Municipalities); and
3. Will help guide CCRPC's PAC in determining whether Act 250 and Section 248 applications are in conformance with the provisions of this Regional Plan. In addition the PAC will use the Substantial Regional Impact definition found on page 110 of this Plan.

It is recommended that CCRPC's new Planning Advisory Committee work on a new policy for how to use this criteria and SRI definition in Act 250 and Section 248 review procedures. The PAC will also work on a new policy for Municipal Plan Review procedures. It is recommended that the Planning Areas form the basis for both of these reviews. To help administer these reviews below you will find the Prioritization Criteria, a description of the Planning Areas and a more detailed description of Substantial Regional Impact and its uses.

CRITERIA

Natural Systems

Ecological Systems

- **Conserve, protect and improve the health of native plant, fish, and wildlife habitats.**
- **Conserve, protect and improve water quality and quantity in Chittenden County watersheds.**
- **Conserve, protect and improve the air quality by reducing emissions of Federal and State-identified air pollutants and greenhouse gases.**

The Ecological Systems goals will be supported or provided for by the following Objectives/Policies:

Measures to conserve, protect, improve and/or manage native species diversity & habitats (terrestrial and/or aquatic)-1pt
Measures to correct, avoid, or minimize habitat fragmentation and disruption of wildlife movement, migration and behavior-3pts

Measures to remove, prevent or minimize non-native invasive species-1 pt
Measures to prevent or minimize point and non-point source pollution to surface and ground water; and/or measures to minimize impermeable surfaces-1 pt
Measures to protect and enhance river corridor connectivity functions and values; and/or measures to provide for flood resiliency in lakes and ponds-1 pt
Measures to maintain soil quantity and improve soil quality-1 pt
Reduction of emissions of air pollutants and greenhouse gases-1 pt
Reduction of application of chemical fertilizers, toxins and pesticides-1 pt
Measures to improve public awareness and appreciation of value and function of the natural environment-1 pt

Scenic and Recreational Resources

- **Conserve, protect and improve valued scenic and recreational resources and opportunities.**

The Scenic and Recreational Resource goal will be supported or provided for by the following Objectives/Policies:

Measures to identify, conserve and/or protect scenic and/or recreational resources measures (regulatory and non-regulatory)-1 pt
Improved public awareness of the value of scenic and/or recreational resources-1 pt
Measures to address utility and renewable energy generation conflict management-1 pt
Measures to address the management of multiple resource use conflicts on recreation lands-1 pt
Measures to improve access to lands for recreation in Suburban and Rural Planning Areas-1 pt
Measures to improve access to neighborhood recreational facilities in Center, Metro, Village and Suburban Planning Areas-1 pt
Measures that foster tourism-related businesses and support important sites that contribute to the tourism economy-1 pt

Working Lands

- **Conserve, protect and improve the working farms, forests and earth resources (including local food, energy production and extraction).**

The Working Lands goal will be supported or provided for by the following Objectives/Policies:

Note: This section is only intended for if there is no net loss in productive farm or forestland (with the exception of #7).
Measures to correct, avoid, or minimize forest and/or farmland fragmentation which increases overall resiliency (completely conserve land and ensure continued productivity = 3pts; partial land conservation that ensures continued productivity; land conservation that keeps land open but not viable for farming/forestry = 1 pt)
Measures to maintain and increase farmland and/or forestland in active agricultural and forestry production-1 pt
Increased percentage of VT food and/or forest products consumed by those within a day's drive from Chittenden County-1 pt
Increased food and/or forest products produced by Chittenden County; including processing and distribution infrastructure-1 pt
Reduced adverse environmental impacts from agriculture and/or forestry practices (including air, water and soil quality)-1 pt

Measures to preserve “prime” and “statewide” agricultural soil types in the Rural Planning Areas; and use of agricultural mitigation tools when needed in Center, Metropolitan, Suburban, Enterprise, or Village Planning Areas-1 pt

Efforts to properly plan for and manage adverse environmental impacts from extraction and quarry industries; including remediation plans upon completion-1 pt

Social Community

Education

- **Quality education and lifelong learning opportunities are available to all.**

The Education goal will be supported or provided for by the following Objectives/Policies:

Improved access or quality of early childhood education-1 pt
Increased reading and writing proficiency-1 pt
Increased proficiency in science and math-1 pt
Increase parental support and participation in childhood education-1 pt
Increased higher educational attainment-1 pt
Increased high school graduation rates-1 pt
Reductions in racial, cultural and economic disparities in educational proficiency or attainment-1 pt
Increased global awareness by learning diverse cultures, religions, lifestyles, and an understanding of non-English languages, with a mutual and open dialogue of respect-1 pt
Increase/improve adult learning opportunities and workforce development for targeted employment sectors and/or workforce sectors (underemployed, unemployed, low income) (Science, Math, Engineering, or Technology = 3 pts, other = 2 pts) NEED TO HAVE MEASURES FOR THESE LEARNING OPPORTUNITIES
Improved health and wellness of students-1 pt

Health

- **All residents are healthy.**

The Health goal will be supported or provided for by the following Objectives/Policies:

Increased active transport options-1 pt
Improved access to health care-1 pt
Improved access to mental health care-1 pt
Reduced promotion of tobacco to youth-1 pt
Reduced exposure to environmental tobacco smoke-1 pt
Reduced promotion of alcohol to youth-1 pt

Decreased exposure to household hazards (lead, radon, etc.)-1 pt
Improved access to fresh, healthy foods (fruits, vegetables, whole grains, lean proteins, low-fat dairy)-1 pt
Improved access to playing areas, parks, trails and other opportunities for physical activity-1 pt
Creation of tobacco free multi-unit subsidized public housing-1 pt

Public Safety, Criminal Justice & Hazard Mitigation

- **Improve public safety.**
- **Reduce the loss of life and property from natural and manmade hazards.**

The Public Safety, Criminal Justice and Hazard Mitigation goals will be supported or provided for by the following Objectives/Policies:

Improved public safety and/or security of public infrastructure and systems-1 pt
Reduced risks to people and property as a result of severe winter storms, flooding, telecommunications failure, power loss, major transportation incident, fluvial erosion or epidemic-3pts
Improvements to an identified high crash location, incident management or documented safety problems-3pts
Education efforts to decrease racial profiling in policing-1 pt
Improvements to emergency preparedness coordination-1 pt
Decreased incidence of crime-1 pt
Reduced recidivism for incarcerated individuals-1 pt
Improved transition back into community for incarcerated individuals, including restorative justice-1 pt
Education efforts to increase public safety (such as bike/pedestrian safety, seatbelts, household chemicals, etc)-1 pt

Civic Engagement

- **Increase active individual and organizational participation in all levels of government by ensuring that government processes are open, transparent, and accessible.**

The Civic Engagement goal will be supported or provided for by the following Objectives/Policies:

Efforts to increase the engagement of the public in government-1 pt
Efforts to increase the diversity of public boards and commissions to better represent the community(ies) they serve-1 pt
Efforts to improve the transparency and accountability of government-1 pt
Increase number of new Americans with citizenship status-1 pt

Social Connectedness

- **Increase opportunities to engage in the social fabric and activities of the community**

The Social Connectedness goal will be supported or provided for by the following Objectives/Policies:

Improvements to, or expansion of, community gathering spaces-1 pt
Enriching activities for youth and elderly/seniors-1 pt
Arts/culture-related activities-1 pt
Volunteer opportunities, including community service-1 pt
Recreational programs or access-1 pt
Opportunities to learn from or about our cultural backgrounds-1 pt

Economic Infrastructure

Economy

- **Retain and support existing employers and jobs.**
- **Increase and support the development and recruitment of existing and new target sector employers and jobs.**
- **Increase local business ownership and entrepreneurial activities.**
- **Improve economic diversity.**
- **Increase employer and employee workplace diversity.**
- **Provide land and building capacity for employment supported with adequate infrastructure in town centers, villages and other areas planned for development.**

The Economy goals will be supported or provided for by the following Objectives/Policies:

A project of regional (2 or more municipalities) economic significance-1 pt
Retention or creation of jobs (more than 50 jobs = 3 pts, 20 to 49 jobs = 2 pts, <20 jobs = 1 pt)
Jobs for unemployed, under-employed or low income residents including women and minorities-3pts
A project that supports small scale community entrepreneurship (such as micro-agriculture, community arts, etc)-1 pt
Creation of job opportunities that are in high-value added sectors-1 pt
Assistance to a community (or communities) adapting to a sudden economic change (large layoff, plant closing, international trade)-1 pt
Investments to benefit areas where 10% or more of the households are below the poverty level-1 pt
Increased numbers of women or minority proprietors-1 pt
Encourages linkages and aides in facilitating technology transfer (e.g. commercialization of primary research in the region) between two or more of the following within key or emerging sectors: employers, universities-colleges, work force development programs-1 pt

Household Financial Security (Income)

- **Improve the financial security of households.**

The Household Financial Security goal will be supported or provided for by the following Objectives/Policies:

Jobs that will pay above county median wage-1pt
Jobs with a livable wage for low income households and households in poverty-1pt
Initiatives that reduce the cost of housing for households-1pt
Initiatives that reduce the cost of transportation for households-1pt
Initiatives that reduce the cost of household energy use-1pt
Initiatives that reduce the cost of healthy food for households-1pt
Initiatives that reduce the cost of health care for households-1pt
Initiatives that reduce the cost of dependent care for households-1pt
Initiatives that addresses the need for employee support through Employee Assistance Programs (EAP)-1pt
Programs which supports employer understanding of economically disadvantaged and diversified workforce issues (i.e. Bridges out of Poverty, workforce diversity training)-1pt

Built Environment

Land Use

- **All future development will support, maintain, and reinforce Vermont's historic settlement pattern of compact hamlets, villages and urban centers separated by and harmonizing with working and natural rural countryside.**
- **Clean up contaminated properties for productive reuse.**
- **Respect, preserve, restore, interpret, and make accessible archeological and historic resources.**

The Land Use goals will be supported or provided for by the following Objectives/Policies:

Redevelopment or development of properties, including public service facilities, in Center, Metro, Suburban, Enterprise or Village Planning Areas (< 1/4 mile from transit fixed route = 3 pts, 1/4 to 3/4 mile from transit fixed route = 2 pts, more than 3/4 mile from transit fixed route = 1 pt)
Development (in the Center, Metro, Enterprise or Village Planning Areas) that is higher density than the current adjacent land use pattern-1 pt
Development that contains a mix of uses or is integrated into an area of mixed land uses in the Center, Metro, or Village Planning Areas-1 pt
Development projects that completely conserve a portion of the land in productive farm or forestland uses (in the Rural Planning Area = 2pts, all other Planning Areas = 1 pt)
Adaptive re-use of one or more existing buildings-1 pt
Infill development in Center, Metro, Enterprise, Village or Suburban Planning Areas-1 pt

Contaminated property clean-up and/or redevelopment-1 pt
Enhancements to archeological and historic resources (ie. should not include regulated protection of these resources from development)-1 pt
Measures to limit and mitigate noise and/or light pollution-1 pt

Housing

- **Increase the opportunities for safe, decent, energy efficient, affordable, accessible and fair housing for all.**

The Housing goal will be supported or provided for by the following Objectives/Policies:

Additional new or rehabilitated housing units (3pts for >30 units; 2pts for 20 to 30 units; 1pt for 10 to 20 units)
Additional affordable housing units (3pts for >10% of units affordable to those earning less than 30% of the Area Median Income (AMI) ; 2pts for >20% of units affordable to those earning between 30% and 60% of the AMI; and 1pt for >40% of units affordable to those earning between 60% and 80% of the AMI)
Improvements to the quality of existing housing (3pts for major rehabilitation or renovation – defined as more than \$30,000 per unit; 2pts for moderate rehabilitation or renovation – defined as between \$15,000 and \$30,000 per unit; and 1pt for minimal rehabilitation or renovation – defined as less than \$15,000 per unit)
Housing for individuals needing enriched services (3pts if at least 10% of the units are special needs or supportive housing – as defined by VHFA's QAP)
Universal design housing to help accommodate different needs of various demographics (3pts if at least 20% of the units are universally designed, 2pts if between 10% and 20% are universally designed, and 1pt if between 1% to 10% are universally designed)
Measures to remove barriers to Fair Housing-3pts
Increase housing for students of higher educational institutions-1 pt

Transportation Choice, Accessibility, Mobility, and Connectivity - highlight changes not reviewed by LRPC 6/14

- **Provide accessible, safe, efficient, interconnected, secure, equitable and sustainable mobility choices for businesses, residents and visitors**

The Transportation goal will be supported or provided for by the following Objectives/Policies:

Transit services or increased transit connectivity-1 pt
Bicycle/pedestrian linkages, regional connections, bicycle parking, improvements to ADA accessibility, or safety education programs-1 pt
Intermodal goods access to the airport, a freight distribution facility, the rail network, or a major employment center-1 pt
Multi-modal transportation connections-1 pt
Transportation project located in, or connecting to, the Center, Metro, Enterprise, or Village Planning Areas-3 pts
Transportation Demand Management (TDM) initiatives to reduce SOV travel and/or redistribute travel demand as an alternative to increasing roadway capacity, including but not limited to, new or expanded park and ride lots-1 pt
Transportation System Management (TSM) initiatives to increase the efficiency of existing infrastructure, such as traffic signal coordination, vehicle detection system upgrades, access management or other Intelligent Transportation System (ITS)

improvements related to highway or transit operations-1 pt
Congestion reduction initiatives related to corridors, intersections, or multimodal facilities with significant congestion (LOS F = 3 pts; LOS E = 2 pts; LOS D = 1 pt)
Enhancement to transportation system preservation-1 pt
Transportation related tourism initiative-1 pt

Energy - highlight changes not reviewed by LRPC 6/14

- **Reduce energy consumption through energy conservation and efficiency.**
- **Encourage the generation of renewable sources that are distributed and produced in an environmentally responsible manner.**
- **Maintain and develop energy production, transmission, and distribution infrastructure that is efficient, reliable, cost-effective, and with lower impact on the natural environment.**

The Energy goal will be supported or provided for by the following Objectives/Policies:

Reductions in per capita energy usage-1pt
Reduce use of non-transportation electricity-3pts
Reduce use of fossil fuels-3pts-1pt
Increase use of renewable energy-1pt
Increase distributed renewable generation-1pt
Improvements in reliability of the energy delivery system-1pt
Employ site design, building orientation and design, building materials, utility systems, and production systems that promote energy efficiency and distributed generation-1pt
Help municipalities, businesses and home owners understand and value energy efficiency and renewable energy sources to make management and facility changes to reduce long term energy use and costs-1pt
Leverage community volunteers to facilitate install of efficiency measures and/or educate general population about efficiency and renewable energy opportunities-1pt

Other Infrastructure

- **Ensure adequate public water supply within service areas.**
- **Ensure adequate infrastructure for wastewater treatment in areas planned for growth and service areas.**
- **Manage storm water runoff affordably and effectively.**
- **Ensure equal access to appropriate and affordable communication services for all.**
- **Decrease materials consumption and increase the use of renewable resources, resource recovery and recycling.**

The Other Infrastructure goals will be supported or provided for by the following Objectives/Policies:

Maintenance of high quality water utilities and service-1 pt
Maintenance of wastewater treatment facilities and increased wastewater treatment capacity and collection infrastructure in the Center, Metro, Suburban, Enterprise and Village Planning Areas with the particular purpose of allowing for increased development capabilities in these areas-1 pt
Low Impact Development, Green Infrastructure and/or Environmental Site Design stormwater management programs and techniques with the particular purpose of allowing for increased development capabilities in these areas without increasing adverse environmental impacts on our water bodies-1 pt
Efficiencies to provide for increased capacity and supply within existing infrastructure rights-of-way-1 pt
Increased and improved communication services-1 pt
Measures to reduce our solid waste stream such as recycling and composting-1 pt

General Criteria

Project Need:	
The project meets one or more strategic priorities in the ECOS Plan (Regional Plan, MTP, CEDS) or United Way target outcomes. [Note: For the ECOS Implementation Grant Selection this was not used as the strategies were not prepared yet.]	10
The project meets one or more goals or strategic priorities in the Municipal Plan(s) or other studies/plans point to this project as being needed	1
Partnerships & Participation:	
Demonstrates unique partnerships with other municipalities, companies and/or organizations to achieve desired outcomes	2
Addressing the needs of, or removing barriers for, low income, racial and ethnic minorities, low educational attainment, disabled or limited English proficiency populations	10
Demonstrated public input into the proposal and measures taken to address public input and/or explanation of how the public will be engaged in the effort	3
Project Readiness:	
The project's planning is developed to the point where it could move forward within 6-12 months of approval (including permits/approvals have been secured if needed)	1
Project has a detailed cost estimate that is realistic and reasonable (is it a recent estimate)	1
Other needed funding sources are secured	1
Does the applicant have control of the project area?	-1 or 0
Does the applicant have the capacity to complete the project efficiently and successfully? Do they have a proven track record?	1
Cost/Benefit Analysis:	
Benefit/cost: The total project scoring sums (from the 15 topic areas) will be divided into their estimated cost to produce a cost/benefit number. The smaller that number, the more cost/benefit points will be awarded – up to 10 max. Ranges will be developed to correspond to the high to low impacts once all projects have a calculated cost	0-10

benefit number.	
The proposed project offers a high likelihood of "high return" on the taxpayers' investment	3
Project leverage: extent to which there is match provided (1 pt for every 10% up to max of 5 pts)	5
The project is innovative and creative, and/or guided by best practices, theory, or research knowledge and will function as a pilot project that will result in savings if replicated.	1
Sustainability:	
Ability to maintain the result/effort and measure the positive impacts. Is there a commitment for long term maintenance?	10
Does this activity impede other activities, other opportunities that will be lost or delayed if this initiative moves forward?	-1
The initiative must have earned points from at least 3 topic areas.	Yes/No
Note: The review Committee may take other considerations into account such as geographic area covered by a particular proposal; or any negative impacts that a particular proposal may have on other criteria.	

PLANNING AREAS

The ECOS Plan uses the Planning Areas concept to identify places that share similar existing features and future planning goals. The basis for the future planning goals is municipal zoning. The Planning Areas aim to describe the appropriate type of future growth expected in each Planning Area. The Planning Areas also aim to illustrate a regional picture of future land use policies in the County necessary to promote a regional conversation about land use in Chittenden County municipalities. The six Planning Areas are depicted on the Built Environment Map (located at the front of the Built Environment Section). They are Center, Metro, Suburban, Village, Rural, and Enterprise.

Center Planning Areas are intended to be regional centers or traditional downtowns that serve the County and beyond and contain mix of jobs, housing, and community facilities. Center Planning Areas also contain the County's highest density and largest-scale developments. Center Planning Areas may contain a state designated New Town Center or Growth Center. Development in downtown centers primarily happens through infill development of underutilized vacant land and adaptive reuse of older structures. Whereas, development in municipal Growth Centers occurs in targeted areas that will accommodate future anticipated growth. These land uses are locally planned and managed to coexist successfully with neighborhoods and natural areas. Places within Center Planning Areas typically are served by wastewater facilities, other infrastructure, and offer a variety of transportation options, including non-motorized modes.

Metro Planning Areas are areas where local zoning authorizes places to accommodate jobs and housing in a compact development pattern that supports transit service and encourages pedestrian activity and are within the sewer service area. Commercial land uses found in the Metro Planning Area are intended to serve the nearby residential area. Densities within Metro Planning Areas are typically higher than those found in the Suburban, Rural, Village, and Enterprise Planning Areas.

Suburban Planning Areas are areas near a Center Planning Area, Metro Planning Area, Village Planning Area, or Enterprise Planning Area where local zoning authorizes future development to occur at compatible scales, densities, and uses with existing development. Future development should efficiently use limited land resources and infrastructure and to minimize adverse impacts on natural resources. Many parts of the Suburban Planning Area already have been developed, often in suburban styles of development. Future development and redevelopment in this Planning Area should use land resources and infrastructure investments efficiently, while minimizing adverse impacts on natural resources and protecting strategic open space.

Enterprise Planning Areas are areas where local zoning authorizes a future concentration of employment uses that attract workers from the County and multicounty region. Development in these Planning Areas should have adequate wastewater capacity and access to transit.

Village Planning Areas are Areas where local zoning authorizes a variety of future residential and nonresidential development at densities and scales in keeping with the character of a Vermont village. Village Planning Areas are compact areas of mixed-use activities that maintain the character of a Vermont village. This type of Planning Area is intended to serve its local surroundings as a place where people can live, work, shop and recreate.

Rural Planning Areas are areas where regional and town plans promote the preservation of Vermont's traditional working landscape and natural area features. The Rural Planning Area also provides for low density development that is compatible with the needs of working lands and natural areas so that these places may continue to highlight the rural character and self-sustaining natural area systems

3.7 Substantial Regional Impact

Regional Plan's are required to include a Substantial Regional Impact definition. The definition is used in two ways:

- **State's Use** of the Chittenden County Regional Planning Commission's Substantial Regional Impact Definition: In Act-250 and Section-248 proceedings in which the provisions of a regional plan or a municipal plan are relevant to the determination of any issue, the regional plan's provisions must apply to the extent that they are not in conflict with the provisions of a duly adopted municipal plan. To the extent that such a conflict exists, the regional plan must apply if it is demonstrated that the project under consideration would have a "substantial regional impact."¹⁻¹¹ That is, for this purpose, the issue of whether a proposed development has a "substantial regional impact" is important only when there is a conflict between the regional plan and municipal plan.

It is highly unlikely that provisions of the *2013 Regional Plan* and the plans of CCRPC's member municipalities will be in conflict with one another because

- ❖ The Land Use Panel of the Natural Resources Board that oversees the Act 250 process currently interprets "**conflict**" between a municipal plan and a regional plan in very narrow terms: "A conflict exists when one plan allows the project but the other does not."
- ❖ To determine whether a municipal plan or a regional plan provides guidance as to whether a proposed development is in conformance with the plan, the Land Use Panel considers **two questions**: (1) Is the language in the plan **mandatory or merely a guidance** and (2) Are the plan's provisions **specific or ambiguous**?
- ❖ To determine in *Act-250* cases whether a plan provision is mandatory or merely a guidance, the Vermont Supreme Court established a general rule that plan provisions using "shall" are more likely to be interpreted as mandates or prohibitions, whereas provisions using "should" are less likely to be so interpreted. CCRPC deliberately chose to make the *2013 Regional Plan* a "policy plan" that is intended to provide **general advisory guidance** and intentionally chose not to use "shall" in the *Plan's* policy statements.
- ❖ State statutes establish that regional plans and municipal plans are to be compatible with one another.
- ❖ A regional plan must be adopted by not less than a 60 percent vote of the commissioners representing municipalities and initially may be vetoed by a majority of the municipalities.
- ❖ Confirmation of a municipality's planning process by CCRPC requires that the municipality's plan be compatible with the regional plan.

- **Chittenden County Regional Planning Commission's Use** of the Substantial Regional Impact Definition: Vermont law requires that this Regional Plan define "substantial regional impact" as the term is to be used with respect to Chittenden County. The Regional Plan's definition of substantial regional impact "...must be given due consideration, where relevant, in state regulatory proceedings." Both Act 250 and Section 248 require the permit applicant for a project that is proposed to be located in Chittenden County to submit a copy of the application to CCRPC. CCRPC is a party in any such application for an Act 250 permit and may apply to be a party in any such application for a Section 248 permit. CCRPC has established a formal policy for its participation in the permit review procedures of Act 250 and Section 248. Under this policy,

- ❖ CCRPC's Planning Advisory Committee considers whether an applicant's proposal is in conformance with the *Regional Plan*.
- ❖ The substantial regional impact definition is used to help identify proposals whose conformance with the *Regional Plan* should be considered more carefully.
- ❖ The substantial regional impact definition is **not** used to determine whether a proposed development is in conformance with the *Regional Plan*.
- ❖ Currently the policy calls for CCRPC staff to periodically check with municipal planning staff to identify emerging development proposals to assess their conformance with the *Regional Plan*. The intent was that this proactive, collaborative approach attempts to work out any concerns about Act 250 and Section 248 applications prior to their submission. However, the FY13 CCRPC contract with the Agency of Commerce and Community Development requires that the CCRPC review and comment on Act 250 and Section 248 applications if a hearing is held. This may be a more efficient system for determining when the CCRPC will comment on these applications.

The following is the required definition of "substantial regional impact," in the 2006 Regional Plan, as this term is to be used with respect to Chittenden County.

A proposed development has a substantial regional impact if a policy of this *Regional Plan* that is relevant to the determination of an issue in an Act 250 or Section 248 proceeding makes recommendations that are more specific about one or more characteristics, features, standards, or conditions relating to the proposed development than the recommendations of the municipal plan.

It is recommended that this definition be amended in this Plan, and that the criteria be used as the basis for CCRPC's evaluations of Act 250 applications and municipal plans for consistency with the regional plan. In this way the criteria will function as objectives/policy statements for each of the goals. The purpose of identifying a new SRI definition and using the criteria to help determine conformance with the Regional Plan is that:

- CCRPC has not participated in Act 250 or Section 248 proceedings since the 2008 Substantial Regional Impact (SRI) definition was adopted and amended into the 2006 Regional Plan (this definition can be found below in the additional discussion of SRI),
- Agency of Commerce and Community Development is requiring CCRPC in its FY2013 regional planning grant contract to participate in all Act 250 applications that have hearings, and
- It will be difficult to achieve the goals of the ECOS Plan without more active engagement in the planning and permitting process.
- The Planning Areas form the basis for the appropriate areas for growth in the next 20 years. Any developments that push beyond these defined areas are likely to have a significant impact on our region.

3.8 Implementation Actions

CCRPC'S UNIFIED PLANNING WORK PROGRAM (UPWP) PRIORITIES

The priorities identified in the Collective Impact Strategies discussion for CCRPC to undertake in the next five years are:

1. TO BE DEVELOPED

Needs to be written and added...

3.9 Statement of Compatibility and Consistency

Pursuant to 24 VSA 4302 (f), 4345a (5), 4348a (a), and 4348a (a)(8), CCRPC has

- Reviewed the approved plans of its member municipalities and of its adjoining regional planning commissions and concluded that this *ECOS Plan* is compatible with those plans (that is, this *ECOS Plan*, as implemented, will not significantly reduce the desired effect of the implementation of the other plans) and
- Reviewed the goals of 24 VSA 4302 and concluded that this *ECOS Plan* is consistent with those goals (that is, implementation of this *ECOS Plan* will result in substantial progress toward attainment of the goals established in 24 VSA 4302).

APPENDIX – DIGITAL ONLY?

Crosswalk – showing how/where RP, MTP, CEDS requirements are met

Indicator/Goal Matrix-to highlight cross references among the indicator/goal statements.

GBIC's Comprehensive Economic Development Strategy (CEDS) Projects

CCRPC's Metropolitan Transportation Plan (MTP) Projects and Supplemental MTP Documents

Financial Report for MTP investments

ECOS Analysis Reports

Maps