

- infrastructure.
- Expanded Transportation Demand Management (TDM) efforts to reduce single occupancy vehicle (SOV) work trips

FIGURE 56 - MTP SYNOPSIS

While the improvements from the MTP scenario do not match those from the Energy Conservation alternative (see Future Transportations discussion on page 157 of ECOS Chapter 4), they make their positive contributions for less than half the cost and within the allotted transportation budget. The program of projects and strategies is rooted in both the ECOS goals and the reality of existing transportation funding streams. Additionally the MTP 2015-2035, if implemented as planned, will advance the two primary transportation indicators: increasing non-single occupancy vehicle work trips and reducing vehicle miles traveled/capita. The transportation projects are prioritized based on funding category taking into consideration the ECOS Criteria see Appendix B).

In the next section, we look at the recommended strategies and actions to achieve our goals.

## 3.2 High Priority Strategies, Actions & Partners

Given the projected growth in our region and the challenges we already know we face, there are no easy answers. The challenges are multi-faceted and often inter-related. For this reason, we are breaking from discussing issues by topic and focusing on comprehensive, cross-cutting solutions in order to achieve a healthy, inclusive and prosperous community.

Collective impact is the commitment of a group of important actors from different sectors to a common agenda for solving a specific 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. The ECOS Project will be implemented through this collective impact approach and is structured in the following way:

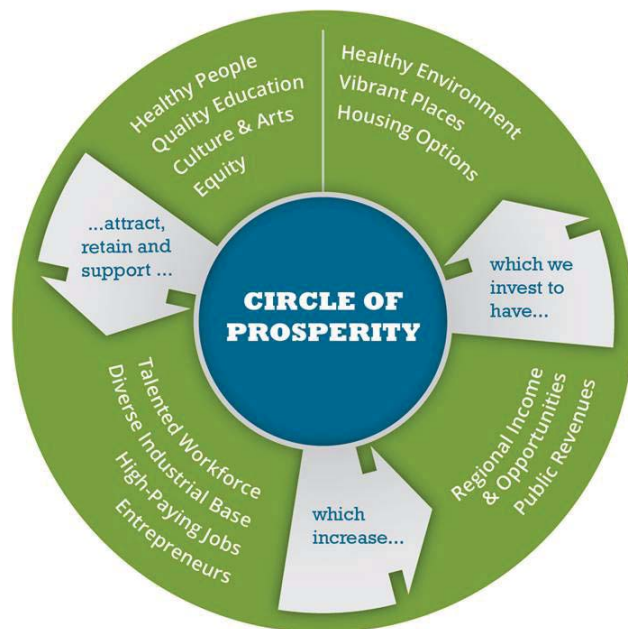
- Strategies** - Eight (8) broad, high priority, cross-cutting, strategic implementation measures. This list is not meant to be exhaustive or to undermine any steps currently underway to effect positive change, but to focus our 5 year implementation efforts.
- Actions** - Under each strategy is a list of general actions identifying the method in which the strategy will be achieved. The actions address the concerns of the community (see end of Chapter 2). Many of these are not new ideas; however, they may need additional commitment or additional partners to achieve the desired outcomes.
- Projects** - Under many of the Actions are identified Funded Projects that were prioritized through ECOS criteria (see Appendix B at <http://ecosproject.com/plan>) and funded with ECOS implementation grants and/or by ECOS Partners. The high priority, vital projects for economic development identified in Section 3.2.1 were prioritized using the ECOS criteria and also reviewed by the GBIC/CEDS Committee. The full ECOS/CEDS and ECOS/MTP Project Lists on pages 136 & 199 (respectively) in Chapter 4 include specific projects proposed for

*We need to work  
together to achieve  
collective impact*

implementation. These implementation projects are each directly related to the strategies described below. The ECOS/CEDS Project List includes details regarding the Lead Partner, other partners, expected start date, jobs beyond construction, estimated costs, and funding sources.

Together, this three tiered implementation approach serves as a strategic plan for CCRPC, GBIC, and ECOS partners for the next 5 years. CCRPC will adopt the actions and projects to which they are a party into their annual Unified Planning Work Program and report progress each year. It is important to note that when implementing actions at the municipal level we must acknowledge the uniqueness of each community and resist blanket approaches.

While this implementation approach is collective in that many partners are needed to participate, it is also collective in that no one piece will bring success without the others. For example, it will be difficult to achieve greater mobility, accessibility, affordability and health without concentrating development in our areas planned for growth. Further, we can't concentrate our growth without providing adequate infrastructure in those areas. Visually, these collective, inter-relationships are described in this circle of prosperity.



An underlying theme in all 8 strategies is resiliency. Resiliency is the ability to adapt to difficult situations and successfully overcome adversity. Building on the example above, concentrating growth makes us more economically and socially resilient in our communities when we diversify our economy and provide job opportunities for all residents thereby increasing equity and income for our residents. Investing in properties in our existing communities also allows us to focus on projects that reduce energy consumption and reduce costs to residents. On the flip side, concentrating growth also helps to protect our rural land and natural resources – bringing greater stability to the rural economy, and greater resiliency to a changing climate.

It should be noted that while there is not a specific climate change strategy, strategies and actions to address our changing climate are included below. The CCRPC is developing a more detailed Climate Action Plan for consideration in FY 2014. Some of the strategies and actions below that are supportive of the Climate Action Plan recommendations include: investing in areas planned for growth, updating municipal plans and zoning, reducing fossil fuel usage, transportation demand management, flooding and erosion hazard protection, habitat preservation, and emergency preparedness.

## STRATEGIES

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

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

#### Actions

1. **High wage employers** – The primary goal of any economic development strategy is retaining and growing the already existing high wage jobs within the economy. Providing support and connecting available resources is critical to ensuring that this economic base remains vital and is able to grow. The high wage sectors in which Chittenden County expects to drive our economy are: Information Technology, Communications, and Media (including Information Technology, E-Commerce, and Digital Media); High Value-Added Manufacturing; Higher Education; Clean Tech/Green Tech; and, Health Care and Wellness (see the Target Sector Analysis – will be located here [www.ecosproject.com/analysis](http://www.ecosproject.com/analysis) shortly.).
  - a. Build relationships with these employers. For example, the recent Tech Jam highlighted some of the region's many successful tech companies. Success here connects to the action on innovation and entrepreneurial development and includes: developing and attracting a tech workforce, access to financing, marketing VT and the region as a home for tech jobs and tech companies, supportive infrastructure such as broadband access, incubator space, and networking.
  - b. Facilitate access to employment and infrastructure development resources made available by the State. Currently these include programs such as the Vermont Employment Growth Incentive, Vermont Training Program, etc.
  - c. Market the quality of life – Chamber action
2. **Industrial Site Locations** – With only a few years supply of existing buildings or permitted sites left for high wage industrial or manufacturing businesses in the region, additional sites need to be identified and carefully planned to ensure a smooth permitting process to be ready for employers' needs for expansion or relocation in Chittenden County. The most likely employment sectors with this need are high wage, technology-based and other types of manufacturing. The best opportunities for these sites are on vacant portions of land owned by current major employers, within close proximity to - or already connected to - existing infrastructure services for long term efficiency.
  - a. FUNDED VITAL PROJECT - GBIC with IBM will examine these undeveloped properties owned by IBM for environmentally responsible infill development opportunities

considering water, wastewater and transportation infrastructure, and take sites through permitting. (Phase 1 of this work is funded by HUD, IBM, and GBIC. Additional federal and/or state funding to help with site development infrastructure may be sought as appropriate. Future funding sources may include EDA or CDBG funds. Total future estimated job growth at this site could be 1,000 or more.)

- b. CCRPC and GBIC will work with ACCD to have business/industrial parks recognized as benefit locations in state designation programs. (Funded by GBIC and CCRPC. No direct additional employment is expected, but this would help to create future opportunities.)
- c. Efforts should be made by CCRPC to educate businesses and developers on development practices that achieve a higher level of density, greater compatibility within traditional development patterns, use less land, and provide for all modes of transportation.

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

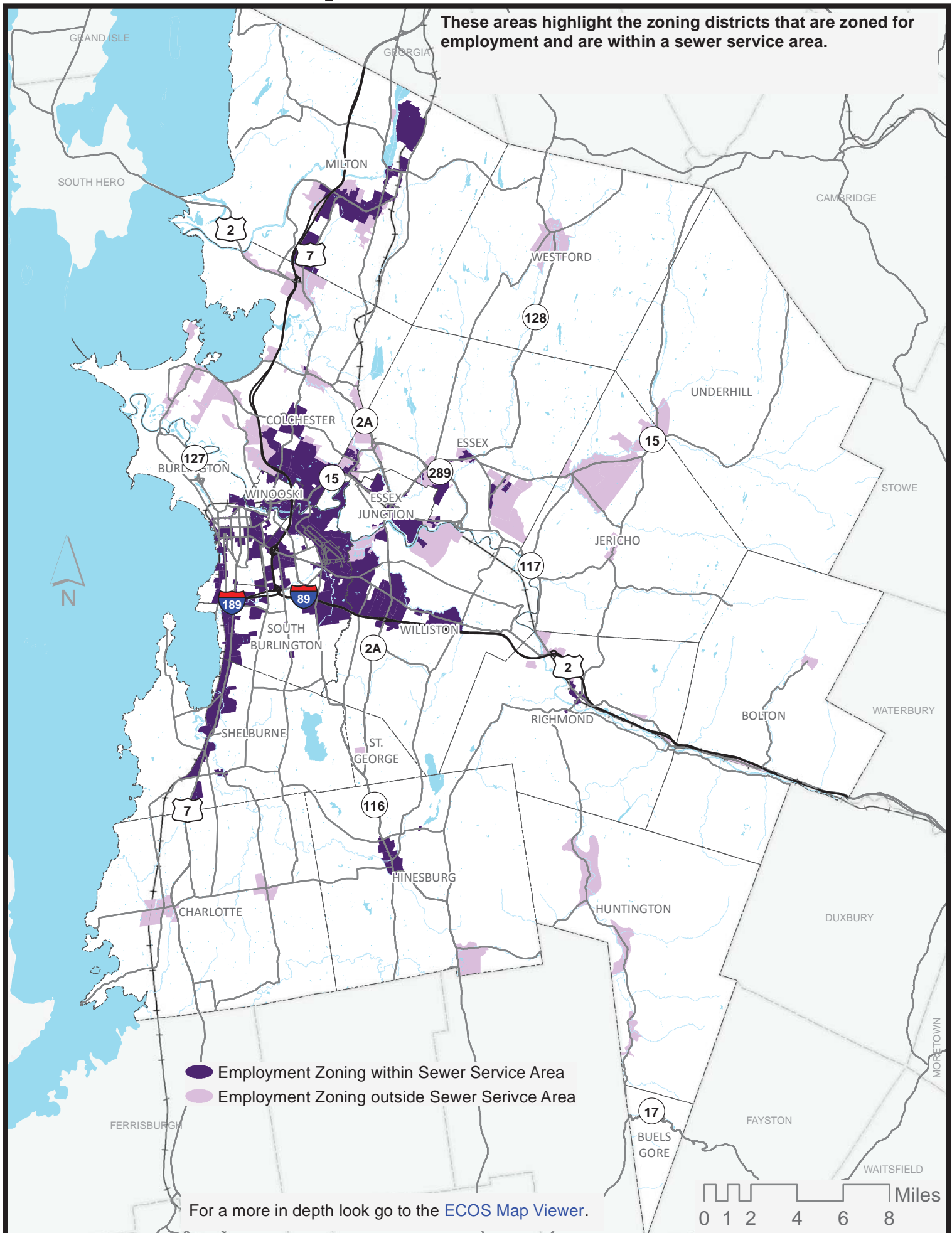
- a. FUNDED PROJECT - Chittenden County After School Aspirations Program (ASAP). Lake Champlain Regional Chamber of Commerce and project partners will design and implement a replicable and sustainable after-school curriculum for at-risk youth in grades 8-12 that will assess their interests and skill levels, raise post secondary education aspirations, expose them to the fields of science, technology, engineering and math (STEM), and prepare them for viable careers in Chittenden County. (Funded by HUD, LCRCC. No direct additional employment is expected, but this would help to create future opportunities.)
- b. See Strategy 3.2.6 for more actions

**4. Innovation and Entrepreneurial Development** – Coordinate and promote the providers, programs, and services already available in the State to create an economic system of resources that is easily navigable at all stages of the innovation and entrepreneurial continuum. This must aggregate and address services such as finding capital, mentorship, prototyping, commercialization, etc.

- a. FUNDED VITAL PROJECT - GBIC is working with the State of Vermont, the University of Vermont, and the Vermont Technology Council to produce a virtual front door for entrepreneurs called "Innovate Vermont." The intent is to create an online portal for entrepreneurs and innovators to find programs, resources, and services across many different needs and throughout Vermont. Funded by GBIC, State of Vermont, UVM and other partners. No direct additional employment is expected, but this would help to create future opportunities.
- b. Encourage home-based small businesses in villages as allowed by municipal zoning.
- c. Research Dayton, OH's work which capitalizes on the entrepreneurial spirit of recent immigrants as a cornerstone of their economic development policy and actions.

5. **Creative Economy and the Arts** – Arts and the creative economy are what drives a large and diverse amount of economic activity in our region (e.g. local foods, design, technology, media, craftsmanship/fabrication, arts, emergent media, music, dance, festivals, education, and recreation). This portion of the economy is fundamentally unique in that it is a significant contributor to the culture in our region. Support creative economy and arts programs and efforts.
  - a. Create collaborations between arts, culture and recreation groups and the Chamber of Commerce and local businesses to promote the use of local artists in regular business needs (i.e. advertising, branding, communications, etc.) and to share vacant or underutilized commercial spaces with artists for gallery and/or studio space.
6. **Working Lands** - Support value-added foods, farms and forest products through the work of Farm to Plate by Vermont Sustainable Jobs Fund and Working Lands Enterprise Board. See Strategy 4 for more details.
7. **Tourism** – Continue good efforts in tourism including VT Convention Bureau, Lake Champlain Regional Chamber of Commerce, and Lake Champlain Byway.
8. **Economic Development Coordination** – Both the State of Vermont and Northwest Regional Planning Commission have begun economic development planning efforts to develop CEDS for the State and Northwest region. There has not previously been a Statewide CEDS. A Statewide CEDS process is beginning in 2013 and this Plan will help inform that effort. Any recommendations that come out of that process will be considered in future ECOS Plan amendments or revisions as appropriate. CCRPC staff is actively participating on behalf of CCRPC and GBIC in both efforts as part of their advisory committees. GBIC and CCRPC will coordinate and assist those efforts to improve the effectiveness of efforts in Chittenden County and for the State.

# Map 1 - Economic Infrastructure



### 3.2.2 STRIVE FOR 80% OF NEW DEVELOPMENT IN AREAS PLANNED FOR GROWTH, WHICH AMOUNTS TO 15% OF OUR LAND AREA.

The areas planned for growth are defined as the Center, Metro, Suburban, Village, and Enterprise Planning Areas (all but Rural) as displayed on the Future Land Use Map. CCRPC is committed to annually monitoring the quantity and location of development to measure our progress on concentrating 80% of new growth in these Planning Areas at a regional scale (not each municipality). This goal mimics the development patterns we've seen in the recent past (see Section 2.5.1 Indicators for more detail). CCRPC will monitor this through annual updates of its housing, employment, and commercial/industrial square footage databases and also by the State of Vermont's e911 locational database. The databases identify when a structure was built, number of dwelling units, employees, and square footage at a specific location. The major source of information for updating these databases will be gathered from CCRPC's member municipalities.

Increasing investment in denser, mixed use growth areas will improve economic opportunities, housing options, transportation options and improve community health. Focusing growth in the appropriate planning areas is also a cost effective approach to increasing the supply of affordable housing, reducing energy consumption and using existing infrastructure efficiently.

#### Actions

#### 1. Invest in Areas Planned for Growth -

- a. Establish wastewater, water infrastructure and public transit in areas currently developed and/or planned for growth.
- b. Target reuse, rehabilitation, redevelopment, infill, and brownfield investments to the non-rural Planning Areas.
- c. Retrofit existing buildings to reduce energy use and greenhouse gas emissions.
- d. Improve design quality of high density areas, and allow flexibility for creative solutions.

#### 2. Municipal Planning and Zoning - Strengthen and direct development toward areas planned for growth through infill development and adaptive reuse of existing buildings through municipal plan and bylaw revisions and state designation programs.

- a. Municipal Development Review Regulations should be revised to improve the mix of uses, shared parking, support for transit, access to a variety of services (for example restaurants, grocery stores, parks, entertainment) via active transportation, energy efficiency, renewable energy and the affordability of housing. A particular emphasis is needed on providing for affordable rental housing.
  - FUNDED VITAL PROJECT - South Burlington's Pathway to Sustainability –The overall project includes a series of initiatives to support, develop, and create a community that will be a leader in sustainable food production, housing, transportation, energy efficiency, natural resource protection, transit oriented development, residential quality of life and economic growth. Specifically, ECOS funding is supporting an overhaul of the City's Land Development Regulations, with a special focus on Form Based Codes, to implement the goals of ECOS and the City's Path to Sustainability.

- FUNDED VITAL PROJECT – PlanBTV Form Based Code. Burlington will develop and adopt form based code zoning for their Downtown and Waterfront districts consistent with PlanBTV.
  - FUNDED VITAL PROJECT – Shelburne Road, Shelburne Form Based Code. Shelburne will develop and adopt form based code zoning for the Shelburne Road corridor north of the Village.
  - FUNDED VITAL PROJECT – Winooski Gateway Development Regulations. Winooski will develop and adopt updated zoning for their gateway districts.
- b. Integrate capital planning and budgeting in planning efforts to provide the right mix of infrastructure over time. Official maps can also be a useful tool to drive infrastructure improvements in the areas planned for growth.
  - c. Health Impact Assessments (HIA) provide a tool to use at the regional, municipal, agency, and organizational level to assure that planning decisions maintain or improve the public health. Access can be improved by co-locating public facilities, in particular, medical and mental health facilities in areas with easy access via active transportation and public transit. Town health officers should be encouraged to participate in community planning efforts.
  - d. Empower local officials through trainings and education on strategies to achieve the above plan and bylaw amendments, and implementation of them during development review. This could include how to effectively analyze development costs and benefits, and select appropriate multi-modal congestion mitigation measures.
3. **Affordable Housing** – Producing more affordable housing helps meet basic needs, creates jobs and 50-year hard assets. This is a critical part of the infrastructure of the community and the economy.
- a. Implement incentives that encourage more housing construction that is lower cost including, but not limited to, affordable and supportive housing. This housing should be integrated within our communities throughout the County to provide a mix of housing for different incomes and access to jobs and services. These actions include:
    - i. Chittenden County Regional Planning Commission and its partners should study the current and projected shortage of affordable housing units by type (rental, owner, multi-family, single family).
    - ii. Increase density in areas planned for growth considering community character and design.
    - iii. Revise infrastructure requirements with a goal of reducing costs for developers.
    - iv. Consider fee waivers or other development review process incentives.
    - v. Continue to work with the University of Vermont, Champlain College and Burlington College to develop specific plans to increase the percentage of students who reside in dedicated student housing.
  - FUNDED PROJECT – VHFA is working with South Burlington, Williston, and Essex Junction to analyze their local needs and suggest improved bylaws and programs to create more affordable housing and increase housing choice.
  - b. Maintain or increase local and state resources that fund additional affordable housing, make housing more affordable, and/or maintain existing affordable housing. These actions include:
    - i. The state should fully fund the Vermont Housing and Conservation Board with 50% of property transfer tax revenues. This funding should be used to increase the stock of permanently affordable housing in Chittenden County.

- ii. Review and amend (if necessary) local ordinances impacting the maintenance and use of existing buildings to ensure they're encouraging maintenance and retrofits of existing housing stock without adding undue cost.
  - iii. Advocate for more Tax Increment Financing (TIF) districts to help fund infrastructure improvements. Encourage the use of municipal housing trust funds to assist in the financing of affordable housing.
  - iv. Take steps to preserve existing affordable housing (including protecting subsidized housing and ensuring perpetual affordability through shared equity programs) from being converted to market rate housing; and continue to encourage shared equity for new owner homes.
- c. Engagement and education efforts should continue and be improved. These actions include:
  - i. Increase fair housing education and outreach for landlords, property managers, real estate professionals, and anyone involved in the sale, rental or finance of housing. Work with the Vermont Refugee Resettlement Program, The Association of Africans Living in Vermont, Opportunities Credit Union, and other organizations to develop strategies for new Americans to quickly develop credit history. Create educational materials that encourage landlords to use alternative criteria for new Americans that don't penalize them for a lack of credit or rental history.
  - ii. Provide fair housing and land use planning training for land use professionals and municipal officials throughout the County.
  - iii. Train municipal officials and staff, the public, and developers to promote better development practices that achieve a higher level of density with quality design.
- d. Increase efforts to comply with fair housing requirements. These actions include:
  - i. Identify gaps in municipal implementation of State Fair Housing laws and ADA compliance (including but not limited to municipal bylaws should include language that explicitly permits officials to make reasonable accommodations to accommodate the needs of people with disabilities without delay or public input).
  - ii. The Vermont legislature should enact legislation that limits security deposits to no more than one month's rent with no more than one-half month's rent and no more than \$200 for pet deposits (excluding assistance animals for persons with disabilities). For tenants with rent subsidized through public programs, security deposit amounts should be based on the tenant's share of the rent before the application of any utility allowance. These limits do not apply to service deposits for residential care/assisted living settings.
  - iii. Implement the recommendations (as best as possible within current resource capacities) of the 2010 Burlington Analysis of Impediments and the 2012 State Analysis of Impediments. This includes tracking zoning variances, local permit applications, adjusted residential permit application and denials to identify disparities and trends.
- e. Increase enforcement and testing capacity of fair housing organizations such as Vermont Legal Aid. Currently, Vermont Legal Aid is only funded to test the protected classes included in federal fair housing law. Seek funding sources that would allow Vermont Legal Aid to test and enforce state protected classes (Age, marital status, sexual orientation, gender identity, receipt of public assistance).

#### 4. Energy

- a. Reduce Energy Consumption - Education and outreach to key sectors regarding weatherization, life cycle fuel costs, and behavioral adjustments will be essential elements for reducing energy use and costs over time.
- b. Decrease greenhouse gas emissions, to support the State's goal of reducing greenhouse gas emissions 50% from 1990 levels by 2028.
  - i. Encourage individual homes and businesses to include electric and thermal energy efficiency in building and/or retrofitting. Weatherization should be promoted and executed as a first step to reduce overall energy consumption before investing in renewable energy systems. There is a need for focused study to determine solutions for vermiculite removal as it relates to weatherization, in particular low income weatherization. Vermiculite was used as an insulator for decades (1960-1990) – and was mined with asbestos thus any home with vermiculite is assumed to be contaminated.
  - ii. Provide alternatives to fossil fuels for heating.
  - iii. Reduce fossil fuel consumption in the transportation sector.
  - iv. Increase resilience to potential interruptions of grid power, especially for maintaining essential services (including water supply and sewage disposal) without electrical power. Such services need, in the short term, backup power with at least a week's supply of stored fuel. In the long term, redesign these services in a more resilient way.
- c. Increase Renewable Energy Generation, to support the State's goal of 90% renewable energy by 2050.
  - i. Determine appropriate sites for community-level renewable energy generation.
  - ii. Encourage individual homes and businesses to include renewable energy options in building and/or retrofitting.

#### 5. State/Local Permitting Coordination & Improvement

- a. Support changes to the local and state permitting process to make the two more coordinated and effective. Participate in the Agency of Commerce and Community Development's (ACCD) process to improve the State's designation programs designed to encourage development in appropriately planned places and discourage development outside of those areas. This program could be improved with regulatory and/or fiscal incentives. These could include expedited permitting processes for projects in areas that are: a) designated for growth; and, b) where a community has a robust plan, regulations and staff capacity; and reduction of redundancies such as delegation of permitting for certain local and state reviews (such as exemption from Act 250). In conjunction with delegation it may be appropriate to develop more stringent standards and thresholds for development review in rural areas.
- b. Collaborate with stakeholders to ensure local and state regulations, bylaws and plans encourage transparency, predictability and timely review of sustainable and environmentally sound development applications.
- c. Develop a transportation assessment process that supports existing and planned land use densities and patterns in Center, Metro, Suburban, Village, and Enterprise Planning Areas to allow for more congestion and greater mode choice than allowed by current standards. The CCRPC will collaborate with the Vermont Agency of Transportation (VTrans), the Natural Resources Board, and other state and local stakeholders to

develop a process that evaluates the transportation impact from a multi-modal perspective rather than just a traffic flow standpoint.

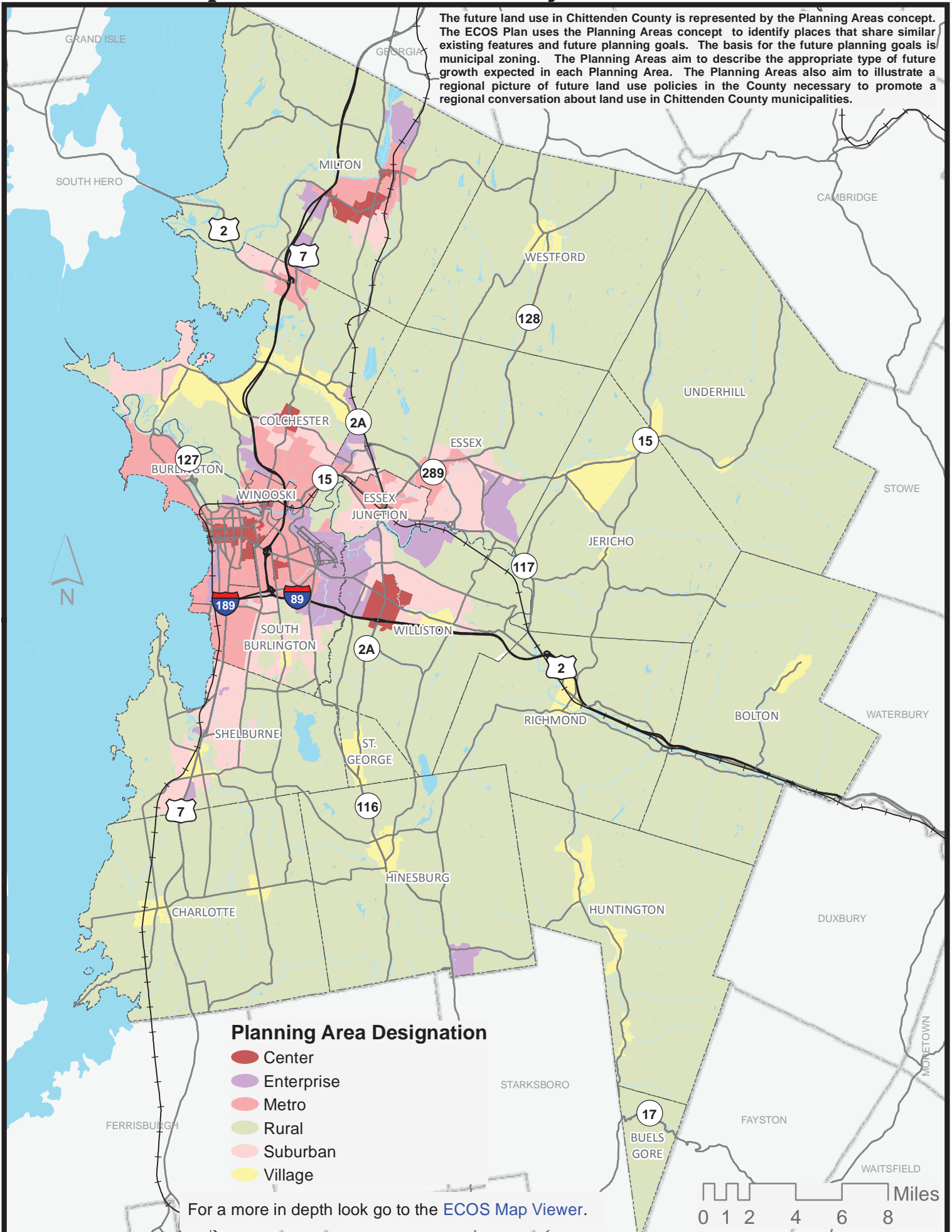
- Policies and planning studies that are adopted as part of this ECOS Plan and subsequent amendments will guide CCRPC's position in permit proceedings.

## 6. Metropolitan Transportation Plan Investments

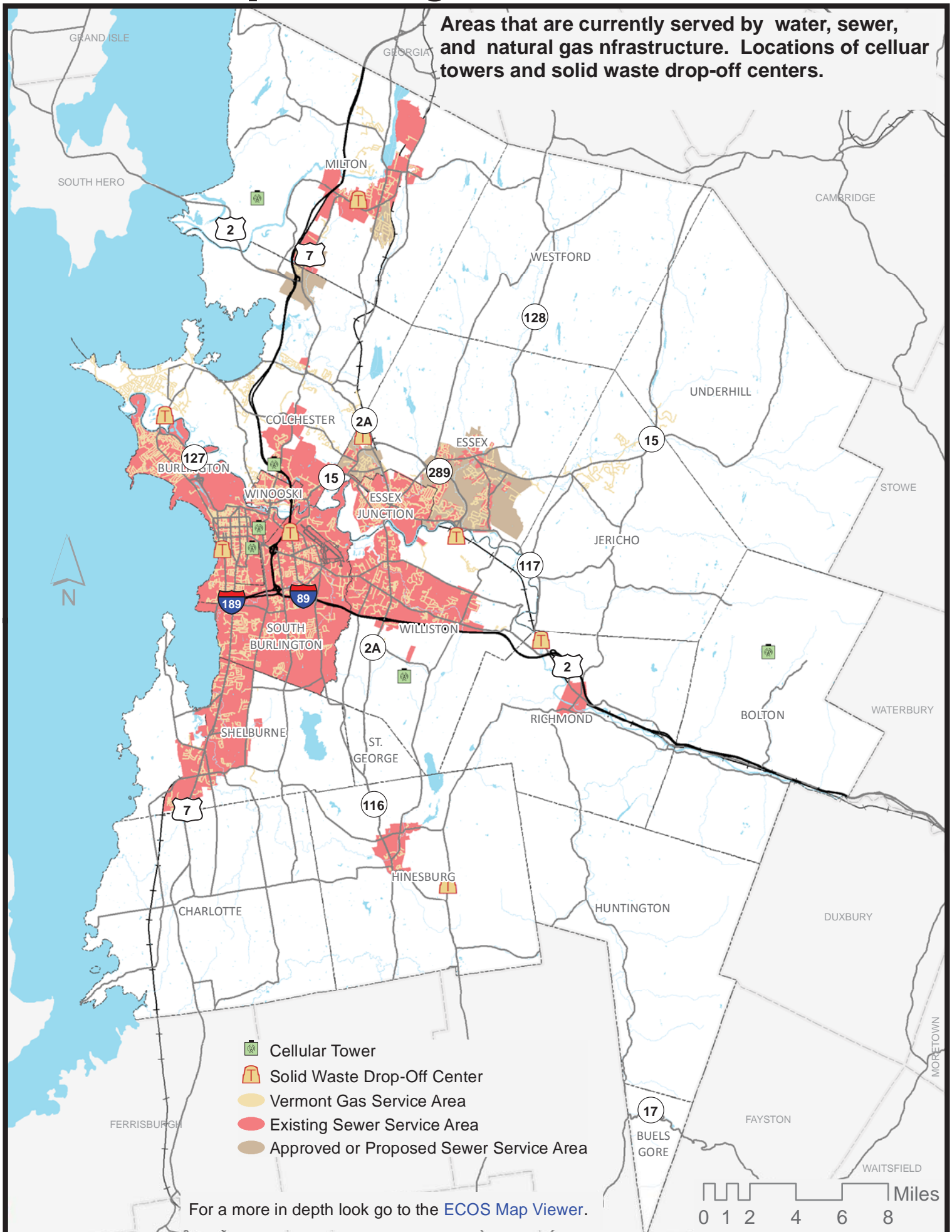
- Adequately fund the maintenance and preservation of our existing transportation assets including roads, bridges, rail, transit, walking/biking facilities, and transportation demand management (TDM) programs and facilities.
- New transportation system investment should focus on the highest priority transportation projects as detailed in the ECOS/Metropolitan Transportation Plan (MTP) Project List. In the next five years, these projects will primarily be those that are included in the Transportation Improvement Program (TIP), as may be amended. The TIP projects are considered FUNDED VITAL PROJECTS for the purposes of the Comprehensive Economic Development Strategy (CEDS).
- Future project investments and specific focal areas for targeted implementation impact include:
  - For transportation planning studies that have been adopted as part of this ECOS Plan, the specific recommendations for project, policy, and program investments will guide CCRPC investment priorities.
  - Expand Intelligent Transportation Systems (ITS) for the roadway network, and traffic and transit operations, to improve safety and reduce congestion;
  - Expand the Go! Chittenden County Transportation Demand Management (TDM) program (including park and ride facility development) to reduce single occupancy vehicle (SOV) trips
  - Increase investment in CCTA transit services to increase user accessibility
  - Expand walking and biking infrastructure to support active transportation and to provide interconnection with the region's transit system
  - Develop a regional network of electric vehicle charging stations to accommodate the growth in low emissions, low energy costs electric vehicles and support the expanded adoption of natural gas vehicles for heavy duty fleets.

# Map 2 - Chittenden County Future Land Use

The future land use in Chittenden County is represented by the Planning Areas concept. 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.

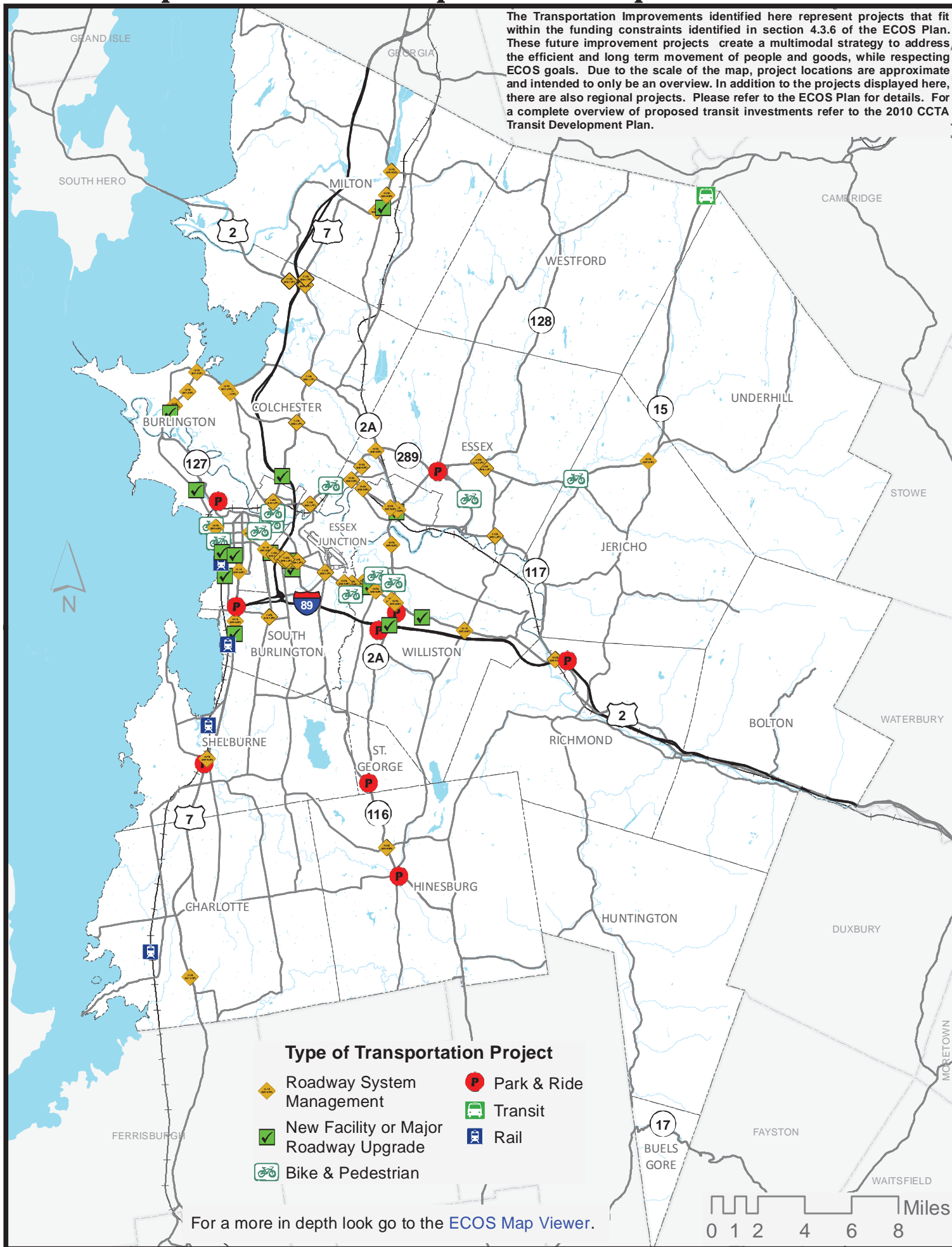


# Map 3 - Existing Utilities and Facilities



# Map 4 - Future Transportation Improvements

The Transportation Improvements identified here represent projects that fit within the funding constraints identified in section 4.3.6 of the ECOS Plan. These future improvement projects create a multimodal strategy to address the efficient and long term movement of people and goods, while respecting ECOS goals. Due to the scale of the map, project locations are approximate and intended to only be an overview. In addition to the projects displayed here, there are also regional projects. Please refer to the ECOS Plan for details. For a complete overview of proposed transit investments refer to the 2010 CCTA Transit Development Plan.



### 3.2.3 IMPROVE THE SAFETY, WATER QUALITY, AND HABITAT OF OUR RIVERS, STREAMS, WETLANDS AND LAKES IN EACH WATERSHED.

While striving toward all of these ECOS strategies, and particularly Strategy #2 – 80% of growth in 15% of our land area, it is essential to do so in such a way that we do not impair our essential water resources (including potable water) and that we prepare ourselves for the impacts of a changing climate.

1. **River Hazard Protection** – Develop and implement adaptation strategies to reduce flooding and fluvial erosion hazards. While supporting planned growth, ensure that growth is evaluated in terms of preparedness for a changing climate – particularly wetlands, rivers, lakeshore, and other areas where extreme weather can cause flooding.
  - a. Identify problem locations - Conduct on the ground inventories and map flow and sediment attenuation locations and problematic infrastructure (undersized culverts, eroding roadways, "vulnerable infrastructure" - infrastructure subject to repeat damage and replacement, etc.).
  - b. Revise bridge/culvert designs - Revise public works and zoning ordinances with culvert and bridge design specifications that allow for wildlife passage and movement of floodwater and debris during high intensity events. Implement culvert and bridge designs that produce stable structure in river channels (i.e. fluvial geomorphology).
  - c. Protect river corridors & ensure enforcement – Existing bylaws protect the majority of Fluvial Erosion Hazard (FEH) areas with stream setbacks and floodplain regulations; improve bylaws to protect the FEH hazard zones not currently protected and enforce these bylaws. Continue protection of river corridors including non-regulatory protection measures such as stream re-buffering and culvert and bridge replacements.
  - d. Support non-regulatory conservation and/or preservation of vulnerable areas through public and land trust investments.
2. **Non-point Source Pollution** - While we have addressed point sources of pollution, non-point sources are still contributing pollutants to our water bodies.
  - a. Assemble data – Work from existing data collected and further identify the locations that are contributing to water quality pollution such as flow, sediment, pathogen and nutrient. Where needed, conduct on-the-ground inventories of water quality and biological assessments (in-stream), wetlands, sub-watersheds, river corridors (buffered or not) and geomorphology. Map the existing and new data on one regional map.
  - b. Revise Plans and Bylaws and Ensure Enforcement -- Incorporate the above data into municipal plans; establish specific statements that protect these resources; develop clear standards for how to protect these resources within zoning regulations; and initiate on-going enforcement of the regulations. Encourage low impact development techniques, and shared storm water control programs to maximize land development in areas planned for growth. Incentivize best management practices for agricultural uses; and encourage the Agency of Agriculture to better enforce their accepted agricultural practices.
  - c. Implement Non-regulatory approaches - Identify and implement non-regulatory approaches to nutrient, pathogen and sediment pollution management. Under new MS4 permit requirements, municipalities will be developing flow restoration plans to achieve the total

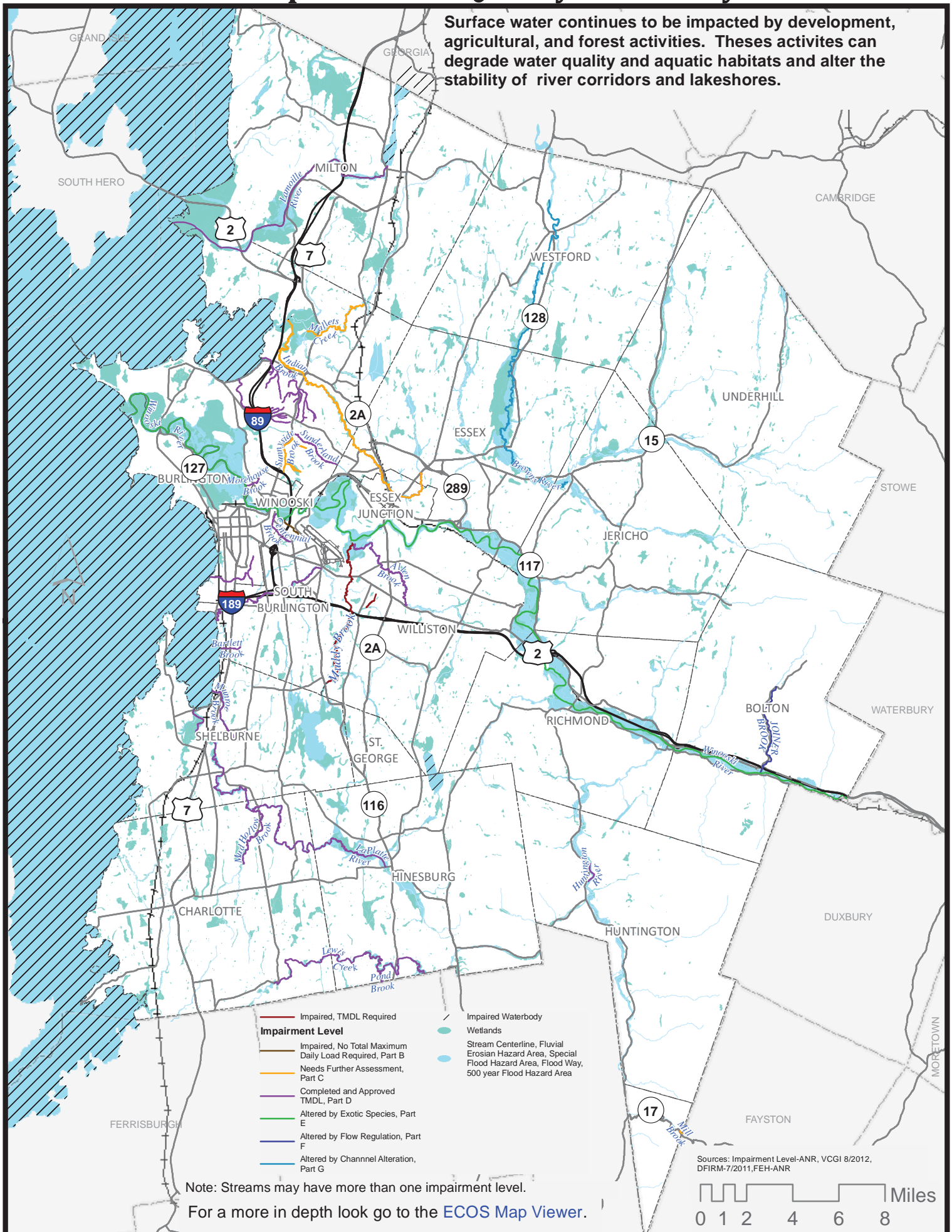
maximum daily load requirements for impaired streams, rivers, and Lake Champlain. These plans may require additional public investment in storm water facilities or investments or actions by individual property owners. Support watershed organizations.

- FUNDED PROJECT - Connecting the Drops: A Water Story –Winooski Natural Resources Conservation District (WNRCD) aims to continue public awareness of water quality issues with a call to action in the 2013 summer season. The project includes a public art and education display in downtown Burlington where art, public participation, science education, and environmental stewardship will highlight stormwater's impact on Lake health and steps each of us can take to improve it.

3. Support and promote the use of more holistic, less chemical dependent and less energy intensive effluent management efforts whenever possible (for example, composting toilets, localized grey water systems, passive grey water and black water septic systems, rain water harvesting and storage, etc.)

# Map 5 - Water Quality and Safety

Surface water continues to be impacted by development, agricultural, and forest activities. These activities can degrade water quality and aquatic habitats and alter the stability of river corridors and lakeshores.



### 3.2.4 INCREASE INVESTMENT IN AND DECREASE SUBDIVISION OF WORKING LANDS AND SIGNIFICANT HABITATS, AND SUPPORT LOCAL FOOD SYSTEMS.

1. **Habitat Preservation** - Protect forests, wetlands and agricultural lands from development, and promote vegetative landscaping in urban areas in order to maintain natural habitats, natural storm water management and carbon sequestration. This will keep people and infrastructure out of harm's way and allow for natural flood attenuation areas.
  - a. Inventory - Conduct on the ground surveys and inventories of significant habitats (include wetlands), connectivity corridors, scenic resources and locations of invasive species and map this information. Incorporate this data into municipal and regional plan text and maps and establish specific policies that address and protect these resources.
    - FUNDED PROJECT - Forests, Wildlife & Communities: Science to Action – Town of Richmond with Towns of Bolton, Jericho, Huntington, Vermont Natural Resources Council, Arrowwood Environmental, Vermont Fish & Wildlife Department, VT Forests, Parks & Recreation Department, and CCRPC. This project is a comprehensive four-town natural resource inventory of wildlife habitat, wetlands, uplands, natural communities and working lands; technical assistance in the development of bylaws and non-regulatory conservation tools tailored to our communities' needs to provide permitting predictability, protect, restore and enhance critical habitat, and advance the goals specified in each town's plan; and engagement of property owners and other citizens in all aspects of the project.
  - b. Municipal Development Review Regulations - Develop clear definitions of the resources to be protected and establish standards to describe how to protect these resources within zoning and subdivision regulations.
  - c. Education - Educate engineers, developers, real estate professionals, planners and the public regarding resources and methods for restoration and protection.
  - d. Non-regulatory Protection - Support non-regulatory conservation and/or preservation through public and land trust investments. Establish invasive plant removal management plans, implement the plans and include long-term monitoring.
2. **Working Lands Implementation** – To preserve the soul of Vermont, as well as move forward into the future with resiliency, Vermont needs to protect the farmland and forestland we have and support existing and new operations (including, but not limited to, un-intensive urban and suburban home gardens and mini-homesteads). Support implementation of the Farm to Plate Strategic Plan and the VT Working Landscape Partnership Action Plan.
  - a. Municipal Development Review Regulations - Develop clear definitions of working lands to be protected and establish zoning and subdivision standards to describe how to protect these areas from development so that they may be retained and accessible as “working” lands. Maintain access and scale of working lands to ensure viability after subdivision in the rural landscape (including but not limited to protection of log landings of previously logged forested parcels, zoning techniques such as fixed area ratio zoning to separate lot size from density, conservation zoning and homeowners association bylaws that allow for farming on the open space lots, etc.);

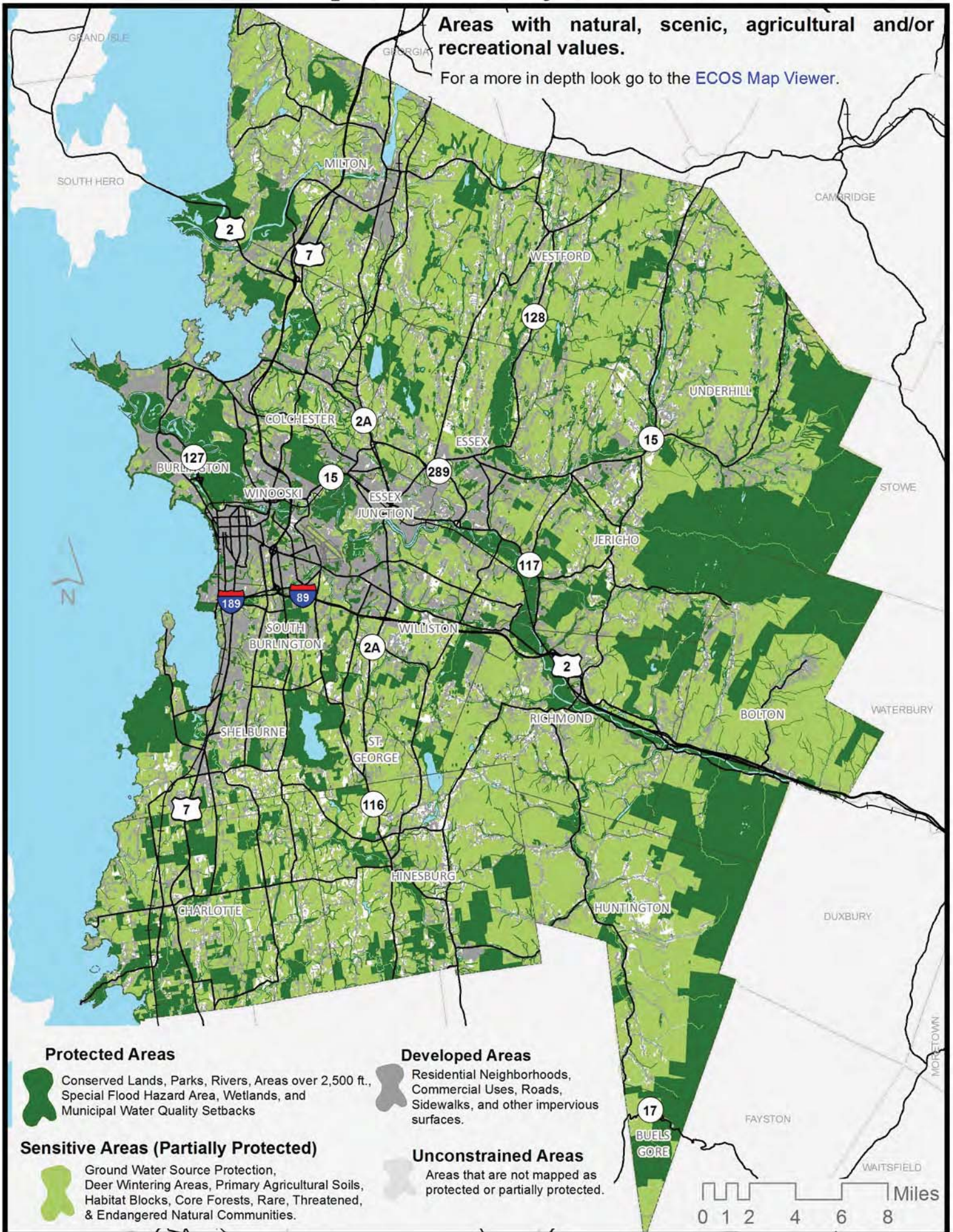
while promoting urban agriculture in areas planned for growth. While farming is generally exempt from municipal zoning, some structures such as farm houses, processing facilities, the generation of energy for on-farm use, and on-farm retail and related enterprises may be regulated. The economic viability of farm enterprises can often depend on these facilities so municipal regulation should not impede reasonable farm related improvements.

- b. Infrastructure & Systems – support establishment of food processing industries, value-added product markets, workforce training, etc to help support the viability of these industries.
  - FUNDED PROJECT - New American Food –Association of Africans Living in Vermont, Inc. is leading this revenue-generating, culinary job skills training project. It will prepare unemployed refugee Reach Up (Temporary Assistance for Needy Families) recipients, with limited English proficiency, for jobs in the food preparation and food processing industries through the 120-hour, 10-week FRESH food course. The AALV Employment Counselor places graduates into employment opportunities that result in movement off welfare. In addition, there will be an increase in sales by refugee farmers of organic, locally grown crops.
- c. Support non-regulatory conservation and/or preservation through public and land trust investments (including but not limited to municipal land conservation funds).

# Map 6 - Natural System Areas

Areas with natural, scenic, agricultural and/or recreational values.

For a more in depth look go to the [ECOS Map Viewer](#).

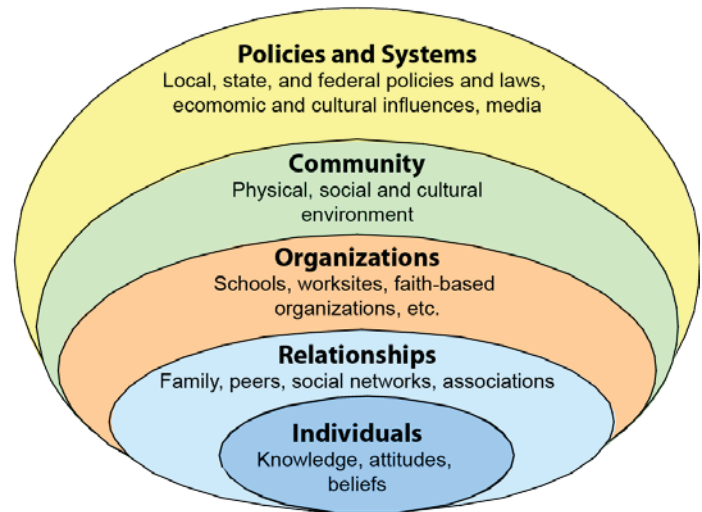


### 3.2.5 INCREASE OPPORTUNITY FOR EVERY PERSON IN OUR COMMUNITY TO ACHIEVE OPTIMAL HEALTH AND PERSONAL SAFETY.

Efforts to reduce obesity, tobacco use & alcohol abuse must be multi-focal; impacting social norms, public engagement and ultimately laws and policy. The VT Prevention Model is an instrument that guides the interventions set forth by the Vermont Department of Health and its many community partners. It helps ensure a comprehensive impact on every level of society from the individual resident to government policy makers. In the case of establishing tobacco free outdoor spaces substantive progress is made when interventions are brought to bear at all level of the prevention model. For instance, a healthcare provider counseling patients about health risks associated with tobacco represents an individual level strategy. Youth tobacco prevention coalitions capitalize on the power of social relationships to shift social norms (relationship level).

Organizational level actions might involve adapting a worksite wellness program to include a tobacco cessation component. A media campaign represents a community level strategy. Lastly, creation of a town ordinance or amending zoning regulations to designate a smoke-free public area represents prevention intervention at the policy/systems level. The Prevention Model can be used to guide the transition of public awareness and opinion leading to the establishment of systems that incorporate prevention strategies into the community planning process.

#### ***Vermont Prevention Model***



Source: Vermont Department of Health

1. **Basic needs** – Investment in the health, safety and education of citizens is the tide that lifts all boats. Provide the basic needs of all people through access to healthy food, access to safe shelter, greater and more equitable opportunities for education, job training, jobs, affordable housing and public transportation.
- **FUNDED PROJECT** - Eat Well, Age Well - Hunger Free Vermont with the following partners: American Association of Retired Persons, United Way, Champlain Valley Agency on Aging, State of Vermont Department for Children and Families. This project will connect committed and trained United Way volunteers aged 55+ with Vermonters aged 60+ who may be eligible to participate in 3SquaresVT. This project will collaborate with the Community Driven Transportation for Seniors & Adults with Disabilities project on opportunities for outreach for their shared audience.
2. **Tobacco Use** – Reduce access and exposure to tobacco by restricting retail promotion of tobacco products and designating tobacco-free outdoor public spaces and events.
3. **Obesity** -- Create policies and environmental supports that increase access to active transportation, active recreation, and healthy foods.

4. **Substance Abuse** - Support residents in choosing to be free from alcohol abuse and addiction by restricting retail promotion of alcohol products and designating alcohol-free outdoor public spaces and events.
5. **Emergency Preparedness**
  - a. Assure that all municipalities and social service organizations have well-developed emergency preparedness plans that take an all-hazards approach and thereby can be used in weather emergencies (such as widespread and prolonged loss of electrical power in winter) as well as biological, chemical, radiological and terrorist emergencies; address the needs of their residents/clients with access or functional needs; and address the needs of residents/clients who speak a language other than English. Include action steps that municipalities would take in the case of a major emergency event at nearby locations that create a refugee situation in the Chittenden area.
    - i. Assure an understanding of these plans by entities named in the plan as well as those supported in the plan.
    - ii. Practice implementing the plan through regular emergency exercises.
  - b. Train Chittenden County employers on the development, practice, and regular review of Businesses Continuity Plans and Business Recovery Plans.
  - c. Develop systems that monitor for impacts of climate-change that would affect human health or safety. Assure communication systems are in place to share this information with entities that are best suited to engage in prevention planning and provide any necessary emergency support.
6. **Caregiving** - Assure that older adults and people with disabilities are well cared for as needed.
  - a. Support family members who provide care for them.
  - b. Ensure that older adults and people with disabilities who need formal care in their daily living have access (including transportation) to the appropriate services as needed.
    - FUNDED PROJECT - Community Driven Transportation for Seniors & Adults with Disabilities –United Way with the following partners: SSTA, CCTA, Champlain Area Agency on Aging, UVM Center for Aging, and Fanny Allen Corporation. The program will create a community-driven transportation service model that provides low-cost transportation services to medical appointments and non-medical rides for seniors and adults with disabilities, especially those with no other means of transportation. The program will recruit, train and retain 30 volunteer drivers; increase the number and types of rides provided to seniors and adults with disabilities by volunteer drivers; decrease the cost per ride across the system; and develop a long-term sustainability plan for the volunteer driver program.
7. **Social Connectedness** - Increase opportunities for residents to come together, interact, and network.

- a. Support organizations and businesses that bring diverse people together around a myriad of themes: arts and cultural events, recreational and leisure activities, civic engagement initiatives, educational workshops, family events, or any other activity that brings people together with a common interest. Encourage organizations of all kinds to offer and/or support free arts and leisure opportunities so that everyone, regardless of location or social/economic status, can experience the benefits of cultural events and participate in civic engagement.

### 3.2.6 EQUIP OUR RESIDENTS WITH THE EDUCATION AND SKILLS THAT THEY NEED TO THRIVE.

During 2012, several efforts were concurrently conducted with a focus of improving education outcomes. The actions below summarize the result of that work. These efforts include the Lake Champlain Regional Chamber of Commerce/GBIC Education Task Force, the Vermont Superintendents Education Quality Framework, and the ECOS Education Subcommittee.

Vermont is home to a public education system that has provided a significant economic benefit to students, businesses and the broader community. There is vital connection between a strong education system, the attractiveness of our region, and a healthy economy. Nonetheless, like much of the nation, Vermont faces challenges. We have an aging workforce, an increasing number of jobs that require a post-secondary degree, entrants to the workforce and college who lack the basic skills necessary to be successful and a lingering achievement gap that is tied to income and race across the state. In an environment with fewer students in the system to enter the workforce, it is an economic and community imperative that our schools help a higher percentage of all students achieve college and career readiness than ever before. Investment in public education is vital for our success as a community and a society – though the costs of education can be exceptionally high. Education financing along with other public costs need to be balanced and evaluated as suggested in 3.2.7.6.

1. **Coordinate Efforts** - Establish a Chittenden County regional initiative of all interested stakeholders to undertake the action steps below drawing upon successful nationally recognized programs in other states. (e.g. STRIVE in Cincinnati, OH)
2. **Elementary Readiness and Comprehensive Student Needs** – Students need to begin kindergarten and every school day after that ready to learn.
  - a. Improve access and funding for pre-kindergarten programs so that children are ready to learn by the time they begin kindergarten.
  - b. Ensure that our young children are nurtured by knowledgeable and capable caregivers by: increasing the capacity, knowledge and skills of parents to nurture their young children; providing families access to high quality early care and education settings; and, supporting the ability of early care and education providers to develop the skills and knowledge needed to care for children.
  - c. Provide adequate meals to students who need them.
  - d. Quantify the financial realities of the human service cost shift and integrate the social, health and nutritional services that schools currently provide.
3. **Student-centered, Proficiency-based, Flexible Pathways to Graduation**

- a. Adopt the Smarter Balanced assessments, which are administered on-line and based on the Common Core Standards. These assessments provide teachers with rapid results, allowing for timely adjustments.
  - b. Develop a comprehensive advisory system within schools that includes a sustained relationship with an advisor throughout a student's career, and a personal learning plan tied to proficiency expectations for graduation rather than Carnegie units of credit. These plans may rely on traditional course-work, school choice, college courses through dual enrollment, internships for credit, on-line courses, community-based work, and service learning.
  - c. Expand the use of on-line resources and technology such as the Vermont Virtual Learning Cooperative (which only one third of Vermont high schools have signed on to) and the Learning Network of Vermont (real time interactive video technology in 130 Vermont school sites).
4. **Consistency Across the System** - Make the changes to governance necessary to improve consistency and equity across the state.
- a. Explore the impacts and outcomes of adopting a common statewide school calendar or targeted and personalized summer program opportunities with the overall goal of deterring summer learning loss.
  - b. Adopt a common, statewide daily schedule to allow for distance learning, flexible pathways and the ability to access courses outside of a home school district.
  - c. Adopt a statewide teacher's contract, with allowance for regional cost-of-living disparities, and acknowledgment for innovation.
  - d. Set a state deadline for voluntary consolidation to achieve a target number of supervisory unions and districts. If the necessary consolidation is not achieved voluntarily, the Legislature should appoint an independent panel to draft a statewide slate of consolidations. Ask districts and supervisory unions (SUs) to describe what unique circumstances prevent their reorganization to serve an average of 1,500 students. Grass roots, community-driven consolidation is the healthiest and most viable course. However, reducing the number of SUs and school districts presents an opportunity to use cost savings to support innovation, improve programs and reduce unnecessary and duplicate spending as well as property taxes.
5. **Career Awareness/Skill Alignment**
- a. Develop a community needs advisory system that embeds current and anticipated career information from employers into each district and SU. Expand early career exposure and awareness that is based on local employer feedback and that begins in middle school or earlier. It should assist families and students with career awareness, goal-setting and the link to relevant learning, training and career opportunities.
  - b. Strengthen programming and delivery of math curriculum.
  - c. Allow Career and Technical Education Centers to be accessible either full or part-time starting in the 9<sup>th</sup> grade.
  - d. Offer credit-bearing, structured, 40-hour internships subsequent to a 20-hour pre-employment skills segment, and tied to a high school learning outcome (e.g., the Linking Learning to Life TIPS (Training Interns & Partnering for Success) model for structured internships).
  - e. Provide training and support for people who are leaving incarceration.

- f. To develop creative and collaboration skills, make sure there are opportunities for students to come together, interact, and network. Bring diverse people together around arts, music, cultural events, recreation, and sports activities.

**6. Teacher Preparation and Ongoing Professional Development**

- a. Support innovation in teacher preparation, training and ongoing professional development. Twenty-first century teachers are facilitators, coaches and guides who will measure student learning through proficiency, instead of serving as the exclusive distributors of classroom and course content.
- b. Allow for greater flexibility in licensing to accommodate transitions from career to classroom.
- c. Improve the numeracy skills and confidence of educators through content-specific professional development and adoption of strong math benchmarks based on the Common Core.

**7. Postsecondary aspiration, continuation, retention and completion** - Public higher education in Vermont is chronically underfunded relative to the rest of the nation. In the near term, additional state investment should be targeted to desired performance: enrollment of Vermonters and successful degree completion.

- a. Adopt a loan forgiveness program tied to the timely completion of a degree, in which a student or his/her parents are provided with an economic incentive to be staggered over five years which forgives the equivalent of one year's tuition at a four-year public college.
- b. For students who demonstrate college or career readiness before they would otherwise finish high school, use the state's commitment to their education through age eighteen to support an additional year of learning. This funding might be applied to an apprenticeship, an experience in entrepreneurship, a certificate program, a year in college, an internship, or community service.

### 3.2.7 DEVELOP FINANCING AND GOVERNANCE SYSTEMS TO MAKE THE MOST EFFICIENT USE OF TAXPAYER DOLLARS AND REDUCE COSTS.

Considering development and growth comes with both costs and benefits, this Plan attempts to reach a balance by directing growth in such a way that new infrastructure and long-term maintenance costs are minimized. For example: Promotion of and incentives for compact development in areas planned for growth will help keep rural areas open; this can also minimize stormwater problems and prevent new watersheds from becoming impaired. Incentives and promotion for public transit can reduce the need for parking lots which will reduce stormwater impacts and costs. Compact development will make public transit more cost effective.

1. **Community Development Finance Tools** – Expand and improve implementation of financing tools available to municipalities with particular emphasis on options that level the playing field between greenfield development and infill development and to help direct new investment dollars to strengthen existing neighborhoods. This would include tax increment financing (TIF), Local Option Sales Taxes, Impact Fees, Special Assessment Districts, and capital planning and budgeting. Also support downtown tax credits, and additional incentives as part of State Designated Growth Centers, Downtowns, Villages, New Town Centers, and Neighborhoods. Keep the Vermont Municipal Bond Bank highly functional, accessible and AAA rated as it is key to the financial health of this region. Explore and develop other financing mechanisms for maintaining and improving infrastructure. Develop revolving loan funds for business to improve access to capital. Monitor the State of Maryland's health enterprise zone program to determine if it is successful and if a similar program would be appropriate for VT.
2. **Affordable housing financing and Implementation** – Increase resources for housing, which includes but is not limited to: local housing trust funds, state housing trust fund, state housing tax credits, and strongly advocating for increased federal resources.
3. **Energy Investment** – Encourage property assessed clean energy (referred to as PACE) efforts, weatherization, tax incentives and other financing opportunities for investments in energy efficiency and renewable energy.
4. **Transportation Financing** - Encourage municipalities to implement local transportation funding programs such as Tax Increment Financing Districts, Local Option Sales Taxes, Impact Fees, or Special Assessment Districts as appropriate. Monitor and participate in state and federal transportation financing reform efforts such as the 2012 Vermont Legislature's Act 153, Section 40 Transportation Funding study and the Natural Resources Board/VTrans Fair Share Cost Study to help address declining revenue from the gas tax.
5. **Clean water Financing** – Monitor and participate in state financing reform such as the 2012 Vermont Legislatures Act 138 study which the Agency of Natural Resources is leading to make recommendations on how to implement and fund the remediation or improvement of water quality. Ensure that stormwater regulation and requirements do not financially burden or penalize dense and compact development in the areas planned for growth.
6. **Monitor State and municipal tax burdens** (education, utilities, municipal services and state) - Examine the structure of government to identify opportunities for restructuring, streamlining or eliminating programs to increase efficiency, reduce costs and enhance accountability. Substantive changes to our tax policy such as expanding the sales tax, internet and cloud

taxation, and migrating to Adjusted Gross Income should not be made until we have a comprehensive picture of Vermont's tax structure, including the property tax and health care financing.

7. **County coordination and alignment** – Coordinate and align investments and actions to advance the ECOS Plan. Monitor and report accomplishments.
8. **Multi-jurisdictional services** – There are a number of services that are provided on a regional or sub-regional basis. These include: Supervisory Unions, Chittenden Solid Waste District, Champlain Water District, Winooski Park District, Chittenden County Regional Planning Commission, Chittenden County Transportation Authority, Chittenden County Sheriff, Chittenden Unit for Special Investigations, and 911 dispatch. Examine and advance appropriate, efficient and effective governance structures to deliver improved services (i.e. Regional Walk/Bike/Park-n-Ride)

### 3.2.8 ENSURE THAT THE PROJECTS AND ACTIONS IN ALL ECOS STRATEGIES ASSESS EQUITY IMPACTS, AND THAT THE DESIGN AND DEVELOPMENT OF PROGRAMS ARE INCLUSIVE OF ALL AND ENGAGE UNDERREPRESENTED POPULATIONS.

Equity, by definition, means fair and just inclusion. The theory underlying the Sustainable Communities Initiative is that economic competitiveness, social equity, and environmental and public health are interconnected and that all of these outcomes can be improved if regions better coordinate their public investments, including transportation systems, toward the goal of sustainability. Past development patterns have prevented regions from maximizing their potential.

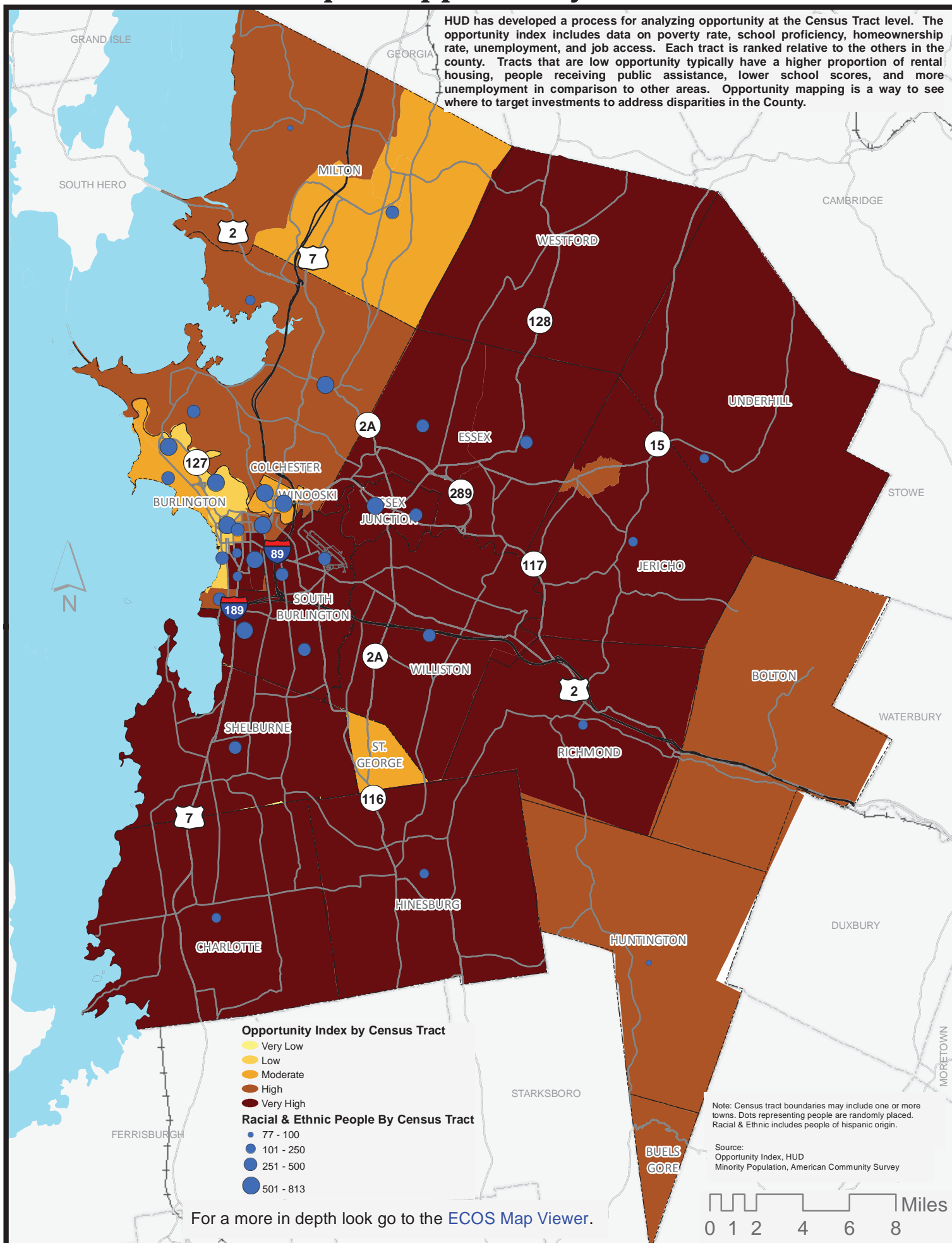
Low-income communities and communities of color are often isolated from economic opportunities because the only homes affordable to their members are in neighborhoods far from growing job centers, good public schools, and basic amenities like grocery stores and banks. Meanwhile, transportation and other infrastructure—critical to attracting and keeping jobs—is crumbling and the risk of climate change is growing. (*America's Tomorrow: Equity is the Superior Growth Model*, PolicyLink, 2011.)

Ensuring equity so that all residents can access and take advantage of the region's economic, social, and environmental assets requires new networks of relationships, new problem-solving methods, and new, inclusive decision-making tables. Substantial efforts are already underway in other communities tackling inequities such as health disparities, transportation and environmental justice, educational equity, and income inequality that can be examined for best practices. New tools need to be created by a diverse group of equity stakeholders in order to ensure for meaningful community engagement, identification and tracking of disparities, and decision-making that weighs the burden placed on different groups. By bringing together diverse and disparate interests while developing new leaders, ECOS projects can be the seeds for an equitable, prosperous and healthy future for Chittenden County.

1. **Track and analyze inequities in all sectors.**
2. **Target and prioritize positive programs** and investments to low opportunity places (see Opportunity Map).
3. **Civic Engagement** - Increase opportunities and remove barriers for civic engagement for all, including underrepresented populations.

- a. Provide leadership development training for all civic leaders, including underrepresented communities, to increase knowledge about and encourage service on boards and commissions.
  - b. Increase boards' and commissions' knowledge and understanding about diverse population and importance of inclusion and representation.
  - c. Support voter registration drives targeting all citizens, including underrepresented groups.
  - d. Invest in the naturalization process: civics classes, connected with civic opportunities.
  - e. Appoint members of underrepresented communities to committees, boards, and commissions.
  - f. Key documents should be made accessible online and translated (or translation services available when necessary).
  - g. Improve municipal and regional government organization websites to increase accessibility of English and non-English speaking community members while complying with ADA standards.
4. **Develop an equity toolkit** that guides the decision-making at the policy, program and budget level.
5. **Dissemination of Findings and New Tools** – Encourage the propagation and dissemination of improved procedures by joining the national dialogue on equity, through online availability, workshops, and peer exchange.

# Map 7 - Opportunity and Race



## 3.3 Plan Accountability and Monitoring

### ANNUAL INDICATORS AND PROGRESS REPORT

In order to increase accountability for ECOS Plan implementation and 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 a part of demonstrating our efforts to do things differently, more effectively and efficiently through stronger partnerships.

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 indicators and implementation of program level actions. There will be opportunities not apparent now to assist each other and achieve better results.

The indicators will be monitored on an annual basis in an Annual Indicator and Progress Report. This report will be guided by an ECOS Accountability Partnership made up of representatives of the ECOS Partners. This committee will be charged with improving partnership efforts and reviewing the draft Indicator and Progress Report and communications each year. Quarterly meetings are expected.

An Indicator Technical Committee made up of staff from the above organizations will provide technical support and make recommendations to the ECOS Accountability 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.

Performance measures will be determined by progress in implementing the projects identified in this Plan. 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 ECOS Plan strategies and actions 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.