Central New York Regional Planning & Development Board
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"VisionCNY" Sustainability Plan
Sustainability Targets and Implementation Strategy

Energy and GHG Emissions

Goal

- Minimize the environmental impact of our region's energy use by decreasing energy and fuel consumption, curtailing energy demand and increasing the use local clean energy sources in place of fossil fuels.

Targets

- Reduce regional energy consumption per capita, including electricity and fuels, by 40% (over 2010 levels) by 2030.
- Reduce regional GHG emissions per capita by 40% (over 2010 levels) by 2030.

Strategies

1. Reduce energy use and demand in existing buildings and facilities through widespread adoption of energy conservation measures and implementation of comprehensive energy retrofit and retrocommissioning projects.
2. Reduce energy use in new construction and major renovations of existing buildings by establishing strong building and energy codes, including movement to performance-based codes.
3. Replace centralized power plants with local distributed renewable energy sources.
4. Adopt higher standards for fossil fuel plants.
5. Educate and motivate residents and municipal and business employees to change their behavior in ways that reduce energy use and carbon emissions.
6. Establish local policy incentives for site and community scale generation and use of solar, wind, and bio-fuel power and for no-till biomass production, especially where conventional agricultural products may be less successful or may contribute to declining water quality.
7. Reduce idling by commercial and private vehicles.
8. Increase fuel efficiency of public and private fleets by purchasing vehicles with a higher MPG rating.
9. Increase the use of alternative fuel and low-emission vehicles.
10. Adopt land use and development strategies which reduce energy consumption and greenhouse gas emissions.

Project Recommendations

1. **CNY Climate Change Innovation Program (C_2IP):** Expand the CNY RPDB's program for municipalities to include large commercial and industrial businesses, and provide technical and

financial assistance such as collaborative procurement of ESCO services, “circuit rider” Energy Manager, or grants to pay for energy studies and/or energy improvement projects.

2. **CNY Green Buildings:** Provide assistance to municipalities to enact laws (similar to Local Law 84 in NYC) to require privately owned buildings over 50,000 SF to annually measure and report their energy and water use and implement a technical assistance program including online resources (similar to NYC’s Greener, Greater Building Program) to assist property owners with the mandatory benchmarking process.
3. **CNY Green Finance:** Explore and create financing options for renewable energy and energy efficiency systems such as a commercial or residential PACE program or a regional entity such as the NYC Energy Efficiency Corporation by 2014 to provide gap financing or up-front capital to building owners to leverage existing state and federal incentives.
4. **CNY Green Office and Building Challenge:** Implement a behavior change program for commercial and municipal employees with a focus on the region’s 900+ buildings larger than 50,000 SF.
5. **CNY Energy Challenge:** Expand the CNY RPDB's behavior change program to provide mini-grants up to $1,000 to homeowners who complete the Energy Team curriculum, recruit at least one homeowner to participate in the program, and complete a home energy upgrade of at least $3,000.
6. **Green Streets:** Replace all public lighting with energy efficient technology such as LEDs and implement a regional public LED lighting collaborative procurement program to provide technical and financial assistance for municipalities.
7. **CNY Solar Ramp Up:** Install at least 200 MW of new solar PV capacity, with a focus on highly visible public and private property such as Hancock International Airport, the Port of Oswego, municipal facilities, school and hospitals and provide technical assistance through collaborative procurement and bulk purchasing “Solarize” programs and interactive online mapping tools similar to Renew Boston Solar, San Francisco Solar Map, and LA Solar Map.
8. **Great Lakes Wind:** Install at least 100 MW of offshore wind energy capacity in Lake Ontario.
9. **My Wind:** Install at least 100 MW of new “community-based” or mid-scale wind energy capacity for municipal facilities or through community ownership and provide technical and financial assistance (i.e., free or low-cost access to meteorological towers) to support pre-feasibility studies as in Massachusetts Clean Energy Center's Community-Scale Wind Initiative.
10. **Home Grown Energy:** Establish sufficient biomass feedstocks such as willow crops on underutilized agricultural lands in the region (i.e., Madison County mucklands) to supply at least 35 MW of power generation.
11. **CHP in CNY:** Install at least 100MW of new combined heat and power plants, including biomass powered facilities, at centrally-located government facilities, hospitals, large nursing homes, industrial facilities and public schools (particularly those that currently rely on fuel oil in rural areas) and provide technical assistance to streamline CHP project permitting.
12. **Geothermal in CNY**: Complete at least 2 large-scale demonstration projects by 2014 that have been identified by the Regional Sustainability plan as having potential such as the SUNY Cortland Park Center and the Coulter Library at Onondaga Community College.
13. **CNY Waste to Wheels:** Implement at least 1 biogas collection and processing facility to provide CNG transportation fuel for municipal or business fleet.
14. **CNY Biodiesel:** Establish a regional biodiesel consortium procurement or bulk purchasing program for large municipal and private fleets and establish a network of blending, storage and fueling stations throughout the region.
15. **Hydro Green Energy:** Select and repower existing non-powered dams, install at least 1 MW of “micro-hydro” systems by 2014 and install at least 5 new small hydro facilities (less than 25 MW each such as the Cazenovia wastewater treatment facility on Chittenango Creek) by 2020.

16. **CNY Clean Wheels:** Launch a technical and financial assistance program to municipalities, schools and CENTRO to purchase alternative fuel vehicles including CNG Waste Collection Packer Trucks, CNG Street Sweepers, CNG buses, Hybrid Medium Duty Trucks, and plug-in electric light duty vehicles.
17. **CNY Waste to Watts:** Implement an active methane recovery system including landfill gas to energy technology at the Cortland County landfill and solar PV projects (panel arrays or flexible covers) at every landfill and resource recovery facility in the region with a target of at least 10 MW of installed capacity by 2017.
18. **CNY Green District:** Facilitate district or campus-wide energy projects including and evaluate potential for biomass fuel sources, with a focus on infill, transit-oriented developments, business parks and institutions of higher education.
19. **CNY Historic Green:** Prepare an inventory of under-performing (“leaky”) historic buildings and a provide technical assistance to support "Green Rehabilitation" (energy and reuse-focused rehabs) of existing buildings through training workshops for contractors and property owners.
20. **CNY Green Fuel:** Transition existing power and thermal generation facilities to more sustainable fuel.

Natural Environment

Goal

- Conserve and protect Central New York's water, land, air and wildlife resources while continuing to meet the needs of present generations without compromising the ability of future generations to meet their own needs.

Targets

- Reduce regional water demand per capita by 15% (over 2005 levels) by 2030.
- Reduce the total number of impaired waters by 15% (over 2012 levels) by 2030.

Strategies and Project Recommendations

1. Utilize and replicate natural systems in support of critical infrastructure services to protect and improve water quality.
    - Conduct a regional GIS analysis as the first step in establishing a regional "Bluebelt Program" in support of identifying opportunities to establish, expand and enhance physical linkages between existing streams, ponds, and wetlands that treat and detain stormwater before it is released.
    - Implement constructed wetland projects to treat septic leachate in unsewered lakefront communities. Conduct demonstration projects (3) at Duck Lake, Pleasant Lake and Song Lake by 2015.
    - Implement a pilot program to demonstrate the effectiveness of treating municipal landfill leachate using constructed wetlands/trickling filters at the Belle Isle landfill in the Town of Camillus; promote and expand similar effort underway at the Bristol Hill Landfill in Granby town.
    - Restore and utilize natural wetlands complex on Nine Mile Creek to provide additional treatment of municipal wastewater effluent from the Marcellus WWTP prior to reaching Onondaga Lake.
    - Implement the City of Fulton's lake bottom dredge project to reestablish the flow of natural springs in Lake Neathawanta.

2. Improve water quality, drainage and reduce combined and separate sanitary overflows by treating and reducing 25% of the current stormwater runoff volume from existing development within 5 years.
    - By 2015, treat 30 – 50 acres located in the Bayberry neighborhood of Clay Town, primarily between Blackberry Road and Cherry Tree Circle, by installing bioretention, water quality swales and pervious pavement to reduce inflow and infiltration to the sanitary sewer system.
    - Reduce localized flooding and inflow and infiltration to sanitary wastewater collection system from 100 acres north of Route 31 and west of Syracuse Herald Avenue in the Lake Oneida Beach West community of the Town of Sullivan.
    - Reduce runoff entering the west side drainage system from approximately 120 acres at the following locations in the Town of Solvay by incorporating bioretention in open spaces at the intersection of Gillis/Center Street and Trump Street, pervious pavement with rain gardens at the fire garage and park at Cogswell Avenue, and a water quality swale east town Highway garage to reduce stormwater inflow to the Milton Avenue drainage system.

- Complete a full engineering feasibility study in support of implementing a neighborhood scale green infrastructure retrofit project to eliminate sanitary sewer overflows in the residential, Branson Road area of the Village of Solvay by 2018.
- Implement the Caroline Ave. green wall project in the Village of Solvay.
- Implement all green streets aspects of the "Green Gateway to the City of Oswego program in support of the city's ongoing combined sewer separation program.
- Construct planned green infrastructure stormwater retrofit and landscaping improvements at the Lock Street Pond in the Village of Phoenix.
- Construct the Lake Neatahwanta Bioswale project at Bullhead Point in the City of Fulton to achieve the following load reductions from a 1-acre site at Bullhead Point parking lot in the City of Fulton: 85% total suspended solid; 40% total phosphorus; 50% total nitrogen Verify exact #s.
- Construct linear bioinfiltration filters in the vicinity of the Onondaga Lake Marina, and parking lot infiltration projects in the vicinity of the Willow Bay entrance to Onondaga Lake Park.

3. Protect prime agricultural soils and reduce nutrient and sediment runoff from agricultural and public lands
    - By 2015, increase agricultural land enrolled in cover crop programs by 36,000 acres in priority watersheds such as Owasco, Otisco, Skaneateles and Oneida Lakes and the Tioghnioga and Seneca Rivers.
    - Reduce the number of currently listed PWL waters with minor use impacts resulting from nutrients and sediment by 20 annually through 2017.
    - By 2018, ensure all farms currently enrolled in County Agricultural Environmental Management (AEM) programs have progressed through Tier 5.
    - Increase annual county enrollment in County AEM programs by 10% through 2018.
    - Construct the Chapman Park Filter Swale project along the south shore of Oneida Lake in the Town of Sullivan to address stormwater runoff directly into Oneida Lake from a 3-acre site. The swale will convey peak storm runoff of 9.4 CFS which exceeds the 50 year storm.
    - Construct the Emerson Park Shore Stabilization project to address projected future sediment pollution of 475 cubic feet per foot of land loss of 475Ft. along the north end of Owasco Lake in the Town of Owasco.
    - Construct the Limestone Creek Bank Stabilization project along 195 linear feet of the east bank of Limestone Creek in the Canal Landing Park, Fayetteville Village.

4. Reduce consumptive water usage by 5% annually
    - Develop a water conservation program for government buildings including an evaluation procedure for assessing the cost of replacing old fixtures and toilets with new more efficient fixtures.
    - Implement residential water conservation demonstration program that includes water use assessment audits, leak detection and low flow plumbing devices program
    - Implement a two-phased water rate restructuring program to promote conservation and more accurately reflect the true cost of the collection, treatment and delivery of potable water. Phase one to consist of three-year public outreach and education program to improve understanding and support for water use rate modifications as a means of supporting long term maintenance and infrastructure needs; Phase two to include equitable modification of user fee structures.

- Implement residential meter replacement demonstration program to install automatic reading meters capable of providing more accurate, real time, web-based water use data in conjunction with _____.

5. Reduce imperviousness by 15% in urban areas by 2016
   - Implement PILOT programs to provide incentives for reducing stormwater runoff from large commercial parking lots in developed urban centers. Initial demonstration target sites to include Kmart Plaza at Route 11 and S. Bay Road, Salina Town; Port of Oswego, Oswego City.

6. Enhance the diversity and resilience of regional forest resources
   - Establish a uniform riparian buffer standard for publically owned properties in urban and suburban centers that defines minimum canopy coverage, understory densities and species diversity requirements. Increase urban and suburban riparian buffers as defined by these standards by 5% annually.
   - Establish an inter-county commission to develop a regionally coordinated Emerald Ash Borer response program, including a proactive removal and replacement program that adheres to species diversity standards for urban and suburban forests.

7. Ensure natural resource managers have the tools to effectively meet their responsibilities
   - Implement a regional stormwater banking and credit program in the Onondaga Lake watershed as a model to promote the use of green infrastructure on infill and redevelopment projects in urban areas.
   - Enact NYS legislation to allow the establishment of stormwater utilities to fully finance municipal stormwater management programs, including green infrastructure maintenance and administration requirements, in compliance with NDPDES/SPDES Stormwater Regulations.
   - Provide model ordinances and technical assistance needed to understand, adopt and enforce stormwater management laws in non-MS4 communities discharging to stormwater impaired water bodies and other high quality water bodies in need of protection including Skaneateles, Otisco, Owasco, Oneida, and Cayuga.
   - Provide enhanced training for local code enforcement officials in support of water recycling.
   - Provide enhanced technical assistance in support of modifying local planning codes and zoning ordinances that prohibit or impede green infrastructure implementation.
   - Establish a standard environmental accounting system for valuing the economic and environmental benefits of green infrastructure components relative to the unique socio-economic and environmental characteristics of CNY as a means of increasing voluntary use of stormwater GI practices in new and redevelopment projects and infrastructure upgrades/improvements/retrofits.
   - Implement an expanded DEC-supported professional development training program for stormwater designers and planning practitioners.
   - Expand targeted stormwater public education programs in non-MS4 communities based on CNY RPDB model.

Land Use and Community Development

Goal

- Manage the region's economic and physical development through the efficient and equitable use of land to conserve and grow its supply of natural resources and revitalize its urban cores, main streets and existing neighborhoods.

Targets

- Increase the percentage of jobs occurring inside municipal centers by 10% (over 2012 levels) by 2030.
- Increase the percentage of population occurring inside municipal centers by 20% (over 2012 levels) by 2030.

Strategies

1. Improve material conditions (ambient temperature, air, water and visual quality, and human-scale pedestrian amenities) of urban cores, main streets and neighborhoods through rehabilitation and urban design standards to improve quality of life conditions.
2. Create mixed-use and transit-oriented development, waterfront development and Traditional Neighborhood Development (TND) districts that provide mixed-income housing options and access to community services that meet local needs such as jobs, healthy foods, recreation and natural resource areas (i.e. playgrounds, waterfronts, parks, nature areas).
3. Increase infill and prioritize the reuse of existing vacant or underused buildings in urban, suburban and rural population centers.
4. Implement safe and accessible pedestrian and bicycle infrastructure that connects homes, places of work, stores, schools, post offices, libraries, parks, and other amenities.
5. Implement policies and incentives such as model "Transfer of Development Rights" (TDR), Uniform Tax Exemption, expedited permitting, mortgage recording fee exemptions, shared parking and access management or other mechanisms, consistent with New York State law, which can be easily adopted by local municipal governments to allow higher density of development in priority investment areas such as commercial and mixed use areas.
6. Establish policy and incentives to increase use of green roofs or use of "high albedo" materials for rooftops, limit or reduce the area of impermeable paving surfaces, and diversify public green spaces with plantings, benches, lighting, art, and universal accessibility in neighborhoods and commercial areas.
7. Encourage development of wastewater treatment facilities where a lack of traditional municipal sewer infrastructure limits development of existing rural community centers.
8. Establish a stronger working relationship process between local communities, municipal governments, and NYS agencies such as DOT, DEC and DOS to align priorities and coordinate investments.
9. Leverage the region's exemplary anchor institutions in education, health and medicine [from CNY REDC plan].
10. Improve preK-20 educational attainment in low-income urban and rural neighborhoods.

Project Recommendations

1. Complete at least two (2) net-zero or "low-carbon development" demonstration projects at the neighborhood or district scale in each of the region's counties (i.e., Inner Harbor, Loguen's Crossing, ShoppingTown Mall) by 2017.
2. Build or rehabilitate existing buildings for affordable, energy efficient owner-occupied and rental housing in urban, suburban and rural areas throughout the region; i.e. implementation of

the recommendations of the City of Oswego Comprehensive Neighborhood Stabilization Program.

3. Develop a Master Plan for the Restoration and Protection of the *Eastern Lake Ontario Barrier Beach and Wetland Complex* (for the entire dune and wetland complex as defined by the NYS Natural Heritage Area designation) including EPA funding priorities of invasive species eradication and stream bank restoration for high priority areas; multi-municipal land use planning; and educational and recreational program development.
4. Complete the construction of the Loop the Lake Trail around Onondaga Lake.
5. Construct the connecting link of the Erie Canalway Trail between Camillus and Dewitt through the City of Syracuse with connections to the Onondaga County Loop the Lake Trail, the NYS Fairgrounds, and the phase two and three completed Onondaga Creekwalk.
6. Implement a regional Waterfront Main Street program to provide technical and financial assistance to targeted communities along the Erie and Oswego Canal corridors and lakefronts.
7. Create a regional redevelopment masterplan for the Oswego Canal corridor, from the City of Oswego to Onondaga Lake, by way of collaborative partnerships with local authorities targeting abandoned industrial sites, improving the quality of the undeveloped areas with grassy recreational areas, hiking and biking trails, climbing walls, industrial art, natural areas linking diverse components of a green corridor following the former industrial canal and rail lines, and conserving resources by making use of the existing infrastructure for new art, culture, housing, commerce and offices in the aging steel frames of former factories along the canal.
8. Complete the Owasco River Greenway Trail (six-mile multi-modal trail system along the Owasco River extending from Emerson Park at Owasco Lake to Wadsworth “Park” on the City of Auburn’s west side).
9. Complete environmentally sensitive waterfront development projects (such as at Selkirk in the Town of Richland) with an eco- and heritage tourism focus that accommodates both public space and private enterprise.
10. Complete brownfield remediation, community planning, and implementation of new low impact recreational use of the Onondaga lake Wastebed lands in the Towns of Camillus and Geddes including development of an off-road section of the Erie Canalway Trail linking to the New York State Fairgrounds.
11. Complete the Waterfront Trail Extension from Breitbeck Park to Sheldon Beach in the City of Oswego.
12. Complete the Owasco River Greenway Trail (six-mile multi-modal trail system along the Owasco River extending from Emerson Park at Owasco Lake to Wadsworth “Park” on the City of Auburn’s west side).
13. Establish a regional incentive zoning program for protective overlay districts (buffer strips) along agricultural land waterways, to encourage local watershed preservation overlay districts to delineate protection of water resources.
14. Link the Eastern Finger Lakes to the NPS Finger Lakes Water Trails & Water Access Planning project; and implement safe, well-designed recreational boating infrastructure, and improved public access to the region’s key waterbodies (i.e., Owasco Lake in City of Auburn and Town of Scipio, Otisco Lake, the Oswego River and Lake Ontario).
15. Preserve, restore, or rehabilitate and reuse the region’s historic and cultural resources (such as the Hamlet of Sherwood, the Hop Kilns of Central New York, former industrial structures like Camillus Cutlery, c. 1895 Erie House Canal Store, and vacant historic houses of worship throughout the region.
16. Develop a collaborative Technical Assistance "Green Rehabs" Program to inventory and incentivize priority redevelopment/reuse projects and implement them through capacity

building training workshops in technical trades geared to "Green Rehabilitation" of existing buildings.

17. Prepare a regional land use management plan mapping optimum development areas along with conservation planning for open space, scenic resources and corridors to support viewshed protection, bike routes, and wayfinding along NYS Route 3 Scenic Byway – *The Seaway Trail,* and NYS Route13 Scenic Byway - *The Revolutionary Trail*, and other scenic routes such as NYS Routes 41, 13, 80, and U.S. Route 20 National Scenic Byway, in a connected network of natural, historic and cultural resources for coordinated eco- and heritage tourism development with public access areas as part of a regional greenspace network.
18. Prepare a regional Sustainable Transportation Districts Plan identifying regional mobility corridors, metropolitan mobility corridors, high accessibility corridors, multimodal connector corridors including a Regional Pedestrian and Bicycle Master Plan to facilitate growth in alternative transportation use, accessibility, interconnectivity.
19. Prepare a regional Recreation and Heritage Plan to protect identified natural and cultural resources while promoting accessibility, low impact use, and economic development via linked recreational tourism areas and sites, including land use planning for related development; e.g. Southern Hills Recreation Corridor and scenic bike touring route connecting hamlets, hiking trails, state and county parks, festivals and events from downtown Syracuse to Tully, Truxton, and Cortland with scenic corridor protections, bike touring infrastructure, services, event promotions, hamlet revitalization, B&Bs and related economic development.
20. Develop and implement a world-class wayfinding program for Downtown Syracuse that captures the unique identity of the City as the historic center of the scenic Central New York Region, placing both firmly on the map as welcoming, interesting, and easily enjoyed destinations for visitors.

Transportation and Infrastructure

Goal

- Provide sensible infrastructure that reduces greenhouse gas emissions, revitalizes existing communities, strengthens targeted industry concentrations, and improves the region's competitiveness, and connections to, the national and global economies.

Targets

- Increase the total percentage of people commuting via walking, biking, transit, and carpooling by 20% (over 2010 levels) by 2030.
- Decrease the vehicle miles traveled per capita by 20% (over 2010 levels) by 2030.

Strategies

1. Connect community destinations (schools, grocery stores, libraries, parks, shops, municipal offices) with a complete network of sidewalks, highly visible crosswalks, and bicycle lanes and/or paths.
2. Implement transportation services, policies, projects and incentives that encourage transit-oriented development and alternative modes of travel for work, shopping and recreation (pedestrian and bicycle paths and trails, bicycle parking, printed and online bicycle path maps, bike-to-work programs, improved access to public mass transit).
3. Support and maintain "fix-it-first" state and federal transportation infrastructure policies, which favor the maintenance of existing streets and highways, as well as wastewater and drinking water facilities, over the construction of new ones, and important funding programs for historic preservation, walking and cycling facilities, and Main Street and streetscape improvement projects.
4. Prioritize and increase funding that serves community development goals in low-income and underserved neighborhoods.
5. Provide reliable and fast access to the Internet for all of the region's residents.
6. Provide funds to support more sophisticated scenario planning for both corridors and regions, better predictive models that cover not only transportation outcomes but also community impacts, and tools for improved community involvement in the planning process.
7. Begin to strategize on national, superregional, and local commuter rail systems in collaboration with other upstate New York communities and continue to lobby for support of and continued Amtrak service to the community.
8. Encourage the use of more efficient modes of travel and transportation by simultaneously and strategically constraining the parking supply.
9. Raise awareness and motivate citizens to pursue sustainable, low-emissions transportation choices.
10. Implement Transportation Demand Management (TDM) activities to reduce dependence on single-occupancy vehicles.

Project Recommendations

1. Decide on a course of action for I-81 that meets local community needs and priorities as well as NYS criteria such as cost-effectiveness, so that other local projects can move forward with certainty.
2. Complete a streetcar or similar transit system such as bus rapid transit (BRT) that connects downtown of Syracuse, University Hill, Destiny (lakefront) and possible 4th destination (Regional Market or Hancock Airport).

3. Add BRT service and implement “Complete Streets” and Transit-Oriented Development (TOD) projects for targeted areas in selected corridors throughout the region (i.e., Rt 104 Corridor in Oswego; Rt 57; Rt 48; Rt 5 from Auburn to Oneida; Rt 11 from Nedrow through Salina Street in Syracuse to Cicero; James St.; and Genesee St.).
4. Complete recreational multi-modal facilities (i.e., Erie Canalway Trail link through Syracuse, the Onondaga Lake ‘Loop the Lake’ trail, and Owasco River Multimodal Trail System in Auburn NY) and integrate with commuter facilities to decrease dependence on single-occupancy vehicles.
5. Expand CENTRO service to suburbs to increase suburban ridership, including park and ride lots, circulator routes and mini-hubs etc (implementation of old REMAP study elements that still make sense), develop schedules with more frequent headways, dedicated bus lanes, and improved “station areas.”
6. Update CENTRO’s long-range plan to assure that land use and transport connections are adequately employed (put the routes where they are needed, plan the routes where density will be).
7. Create new transit maps and assure their easy use and availability on the Internet, in libraries, and at stations, combine maps with Next Bus technology to improve the predictability of service.
8. Support the creation of a Finger Lakes Railway Passenger Station in Auburn located near the current rail crossing on North Street to create another Auburn gateway for exploring the Finger Lakes by rail. Currently the railroad goes through many historic and interesting communities including Canandaigua, Geneva, Watkins Glen and Seneca Falls. Though focused mainly on tourism at first, this will leave options of for a wider variety of passenger traffic including commuters. Depending upon regional transportation needs (as well as external factors such as fuel prices) rail may be an important option linking Auburn with other cities in the region.
9. Improve passenger rail infrastructure to increase speeds along the Empire Corridor to improve service between Central New York, NYC, and Canada.
10. Improve freight rail infrastructure to increase the use of rail to move goods within and through the region.
11. Create a regional fund for improving bicycle and pedestrian mobility to focus on the addition of bicycle and pedestrian facilities (e.g. sidewalks, bicycle lanes, bicycle racks, crosswalks, etc.)
12. Upgrade pedestrian and bicycle facilities, including painted crosswalks, lighting, seating, bicycle lanes, and bicycle parking connecting downtowns, village cores, as well as university and college campuses to the neighborhoods that border them.
13. Implement city-wide municipal sidewalk snow removal programs that are equitable and financially sustainable.
14. Consider cooperative carsharing (e.g., Zipcar) programs for the university and downtown neighborhoods (such as Philadelphia is doing).
15. Consider transit pass programs whereby employers provide lower-cost transit passes to employees (e.g., Denver’s Regional Transit District).
16. Develop and implement a regional communications strategy to encourage residents of the region to adopt alternative transportation forms, as opposed to Single Occupancy Vehicles (SOV’s).
17. Develop a network of at least 1,000 Level 2 electric vehicle charging stations at key locations such as major employers, retail centers and truck stops and highway rest areas throughout all five counties by 2015.
18. Develop a network of at least 10 CNG fueling stations for large public and private fleets throughout all five counties by 2017.

19. Upgrade Wastewater treatment facilities throughout the region to meet current treatment standards, improve energy efficiency, and implement clean energy technologies (i.e., methane digesters, solar pv, and combined heat and power systems).

Waste

Goal

- Reduce the amount of waste requiring landfill disposal.

Target

- Reduce the total solid waste generated per capita by 25% (over 2010 levels) by 2030.

Strategies

1. Develop a model waste generator "green fee" system that would provide a reliable source of revenue to help fund waste material programs as they strive to reduce the amount of waste requiring disposal, thereby shrinking the economic disincentive for waste reduction that is posed by the current reliance upon waste disposal fees to pay for a large portion of the costs associated with waste management and recycling. *[Note: Tompkins County and Otsego County can be used as models for such a fee system.]*
2. Increase public awareness and develop local support for product and packaging stewardship legislation through the enactment of local resolutions in support of the Principles of Extended Producer Responsibility dated April 11, 2012 *(see attachment)*.
3. Expand single stream recycling throughout the region through contracts with existing single stream recycling facilities and, where appropriate, new facility development.
4. Develop a regional industrial ecology program that would include a waste materials exchange program to facilitate the use of waste materials as inputs; waste material audits for local industries should be included as a part of this strategy, to help identify industrial ecology opportunities.
5. Expand existing public education and awareness programs in the region to further promote waste reduction, reuse, recycling and composting through outreach to the general public, schools, businesses and institutions.

Project Recommendations

1. Develop an active landfill gas collection and control system at the Cortland County landfill that will reduce greenhouse gas emissions and which may ultimately lead to development of a landfill gas to energy project.
2. Purchase recycling containers and waste "toter" receptacles as part of an expansion of publicly controlled curbside collection programs in the region, to be implemented in two stages: first, to reduce: (a) the number of trucks on the road, (b) diesel fuel consumption and (c) greenhouse gas emissions while providing cost savings to residents that had been hiring curbside collection services on their own; and second, to utilize those cost savings to expand curbside collection services to include food waste, including the purchase of specially equipped vehicles and receptacles necessary to collect wet food waste.
3. Develop a network of Compressed Natural Gas (CNG) fueling stations in the region that can be used by truck fleets that collect waste and recyclable materials; convert waste/recyclable trucks' fuel systems to CNG.
4. Develop anaerobic digesters for agricultural and other organic wastes that can be paired with gas recovery systems that convert the digester gases in to CNG.
5. Provide funding to support the expansion of OCRRA's food waste composting facility to handle approximately 9,600 tons per year of food waste plus the processing of up to approximately 68,000 tons per year of yard waste.
6. Develop a backyard composting program.

7. Provide on-site composting vessels to the region's colleges, schools, hospitals, nursing homes, manufacturing plants and other facilities with cafeterias that are not using OCRRA's food waste composting facility or other food waste composting/digester facilities.
8. Secure a reliable supply of bulking materials and funding that can be used to move forward with fish composting and/or onion composting facilities in Oswego County.
9. Complete infrastructure development required for the Madison County Agricultural and Renewable Energy (ARE) Business Park in the Town of Lincoln.
10. Provide funding to develop permanent household hazardous waste collection facilities throughout the region.
11. Develop facilities for the processing and recycling of construction and demolition debris, including development of such a facility at the former Oswego County Materials Recycling Facility located at its Bristol Hill Landfill site.
12. Develop new single stream recycling facility capacity where contracts with existing single stream facilities are not successful.
13. Develop a web-based software system for use by non-residential waste generators to report data on waste materials they generate and dispose of off-site, as a key building block for: (a) future waste material reduction and reuse programs, such as industrial ecology programs that would use one company's waste materials as another company's feedstock; and (b) potential new recycling infrastructure. *[Note: Pennsylvania's waste reporting system provides a model that can be used as a starting point.]*
14. Develop a funding source to implement renewable energy projects at solid waste facilities.
15. Provide funding for municipalities to purchase and place convenient recycling drop-off containers in public spaces and/or at public events.

Economic Development

Goal

- Support the growth of a diverse economic base in Central New York that will provide employment opportunities for a broad cross section of citizens across the entire five-county area.

Target

- Increase the region's current population of 791,500 to 1 million residents by 2050.
- Increase the regions' current number of jobs from 320,000 to 405,000 by 2050.
- Increase the region's current per capita income of $36,833 by 7.6% to equal the current national average of $39,635 by 2050.
- Reduce the percentage of household income spent on housing and transportation by 15% (over 2012 levels) by 2030.

Strategies

1. Maintain a strong foundation for the management and efficient delivery of government services at the federal, state, and local level.
2. Support the development and maintenance of a modern infrastructure network in Central New York that is focused on roads, sewer and water facilities, transit services, telecommunication resources, air and rail services, shovel ready development sites, and port facilities.
3. Develop a coordinated regional program that will improve the quality of life in Central New York through targeted investments in the region's recreation, cultural, arts, and historic resources.
4. Maintain a strong network of county and regionally-based organizations with the capacity to coordinate the delivery of a range of economic development services, tax abatement, and financial assistance in Central New York.
5. Support the operation of a coordinated and robust business retention and expansion program in Central New York
6. Maximize the region's human capital by improving the alignment of workforce supply and employment demand in the region.
7. Encourage the growth of a strong entrepreneurial culture in Central New York that will strengthen the region's economy through new venture formation and product development activities.
8. Support the region's industry concentrations through investment of resources in targeted research initiatives, capital funding, and workforce training programs.
9. Coordinate implementation of a comprehensive regional marketing and business recruitment program.
10. Implement a comprehensive regional export marketing campaign and technical assistance program.

Project Recommendations

1. Support the development of the Finger Lakes Musical Theatre Festival in downtown Auburn through development of a performing arts center.
2. Complete development of the CNY Nanotechnolgy Innovation and Commercialization Excelerator Center at Electronics Park in Syracuse.
3. Complete the development of additional research laboratory facilities at the SU Center of Excellance NYE-RIC.
4. Secure funds to capitalize a $50 million CNY Venture Fund.

5. Support expansion of the SUNY ESF shrub willow biomass energy production program through the development of a network of combined heat and power facilities (CHP).
6. Support development of the CNY Center for Membrane Technologies in Cortland County.
7. Develop the Port of Oswego East Terminal Connector road and rail project.
8. Support the development of new rail siding facilities in the Cortland County Town of Preble.
9. Capitalize a program to expand broadband telecommunication access in communities across CNY.
10. Encourage the development of a modernized CSX intermodal rail freight "in-land port" facility in the Town of Manlius.
11. Direct resources to the development of the SUNY Upstate Loguen's Crossing commercial redevelopment project.
12. Develop additional facilities for the SUNY Morrisville Aquaculture program.
13. Develop the City of Oneida Elm Street/Curtin 250 acre business park.
14. Complete the construction of public infrastructure improvements to serve the White Pines Commerce Park (Clay Business Park).
15. Support the development of the Madison County Agriculture and Renewable Energy Park.
16. Complete the development of a Biomass Cooperative Innovation Center at SUNY-ESF.
17. Undertake necessary transportation infrastructure improvements to support development of the $30 million CNY Raceway Park in Central Square.
18. Complete development of infrastructure to support the Syracuse Inner Harbor commercial redevelopment project.
19. Pursue strategically located and coordinated development of a hotel conference center in conjunction with a regional hops-culinary and equine institute.
20. Expand infrastructure resources to support further expansion of the Aurelius Business Park in Cayuga County.

Climate Adaptation

Goal

- Adapt successfully to a changing climate and improve the resilience of the region's communities, businesses, infrastructure, and natural systems.

Target

- Decrease the economic value of property vulnerable to storm surges and flooding (by relocating critical infrastructure from parcels crossed by floodplains) by 10% (over 2012 levels) by 2030.
- Increase the number of Climate Smart Communities by 50% (over 2010 levels) by 2030.
- Decrease per capita CO2e emissions by 35% (over 2010 levels) by 2030.

Strategies and Recommended Actions

1. Conduct vulnerability and risk assessments, and cost-benefit analyses in order to identify key areas for climate adaptation in Central New York communities.
   - Conduct carbon foot-printing assessments to establish baseline greenhouse gas data; implement municipal climate action plans and greenhouse gas reduction measures as part of the Climate Change Innovation Program and Climate Smart Communities programs.
   - Retrofit structures located in hazard-prone areas to protect them from future damage; identify facilities that are viable candidates for retrofitting based on cost effectiveness versus relocation (City of Syracuse, Onondaga County HMP).

2. Develop systems to prepare for and respond to more frequent flooding events.
   - Transform vacant properties and abandoned lots to parks by installing plants, trees, and rain gardens that will control flooding, enhance soil infiltration, and reduce stormwater runoff.
   - Conduct structural and facility inventories that incorporate flood and wind parameters (e.g. first floor elevations, roof types, structure types) based on FEMA Rapid Observation of Vulnerability and Estimation of Risk Program (ROVER). (Town of Camillus and Onondaga County HMP).
   - Correct conditions that contribute to flooding such as the repair of damaged or old creek and road culverts; the removal of abandoned bridges, debris and log jams; and maintenance of catch basins to facilitate stormwater management capacity (City of Syracuse; Onondaga and Madison county HMPs).

3. Implement measures that mitigate the impacts of climate change on infrastructure.
   - Conduct vulnerability assessments of power plants, water treatment facilities, roads and bridges, and telecommunication systems that are located in flood zones or on steep slopes that are prone to erosion.
   - Implement zoning to prevent new development in flood-prone or high hazard areas and update building codes to require more effective flood-resistant structures in flood zones (Munich Re)
   - Bury existing power lines where feasible and safe, and require this for new construction projects (Keene, NH Adaptation Plan).
   - Repair deficient combined sewer infrastructure to improve capacity during high-water events and implement storage and reuse systems for wastewater (grey water) in all treatment plants to reduce impacts on infrastructure, water quality and ecosystems during heavy precipitation and flooding events (City of Syracuse, Onondaga County HMP).
   - Repair deteriorating structures along Central New York water bodies such as the Little York Lake dam. Construction of the dam was completed in 1956 but it is now in need of repair. Little York

Lake is located on the West Branch of the Tioughnioga River in the Susquehanna River Basin in the Cortland County Town of Homer.
- Implement a green infrastructure plan along the Oneida Creek watershed corridor in the City of Oneida for new and existing development that includes installation of porous pavement, wet weather management systems for parking areas, bioretention basins, rain gardens, and riparian buffers to reduce stormwater runoff and to control flooding.

4. Create a central repository of regional climate data and provide channels for the distribution of climate information.
   - Develop a Central New York Climate Change Clearinghouse with current temperature, precipitation, lake water temperature, storm event, public health, and surveillance and monitoring data (NYSERDA).

5. Develop and implement emergency and hazard mitigation plans.
   - Assist Central New York municipalities in fulfilling requirements to become "StormReady" communities (administered by the National Weather Service) to help them prepare for and mitigate effects of extreme weather-related events through upgraded emergency preparedness infrastructure. Create local StormReady Advisory Boards to help in the development of specific local laws for storm preparedness. Oswego County recently received national recognition as being a StormReady community.
   - Coordinate with NYS Thruway to distribute hazard event information to Thruway travelers; implement a "reverse 911" call-back system to notify residents of emergency information and evacuation routes (utilize the NY Alert/NOAA weather alert systems) (Keene, NH Adaptation Plan& NYS HMP).
   - Expand installation of snow fences, wind breaks, and shelter belts to reduce snow on roadways. (NYS Hazard Mitigation Plan).

6. Implement agricultural practices that support environmental, economic, and social sustainability.
   - Improve cooling capacities in dairy barns and animal facilities through the installation of fans, sprinklers, and cooling systems (NYS ClimAid Report).
   - Increase local food sources and production through co-ops, farmers markets, and community supported agriculture; and double the size and number of community gardens. (Keene, NH Adaptation Plan).

7. Promote open space conservation, implement smart growth strategies, and protect forest ecosystems to increase regional climate mitigation potential.
   - Protect and restore wetlands and floodplains to strengthen the capacity of natural systems to respond to severe weather events, rapid stream flow rates, and flooding; promote the use of wetland banking, constructed wetlands, and the review of local laws to support wetland protection during plan review and new construction. (Syracuse).
   - Create an urban tree management program to reduce heat island effect, impacts from insects and disease, and energy use (Chicago, Fayetteville, Cazenovia, and Syracuse).
   - Continue to implement the Camillus Valley/Nine Mile Creek expansion project and others referenced in the 2009 NYS Open Space Pan to build local resilience. (Town of Marcellus; Town of Geddes; Onondaga County HMP).