Life Undiscovered
ST.LAWRENCECOUNTY

2017

St. Lawrence County Comprehensive Economic Development Strategy

ADOPTED SEPTEMBER 11, 2017

ST. LAWRENCE COUNTY
INDUSTRIAL DEVELOPMENT AGENCY

Prepared by the St. Lawrence County
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ST. LAWRENCE COUNTY
COMPREHENSIVE ECONOMIC DEVELOPMENT STRATEGY

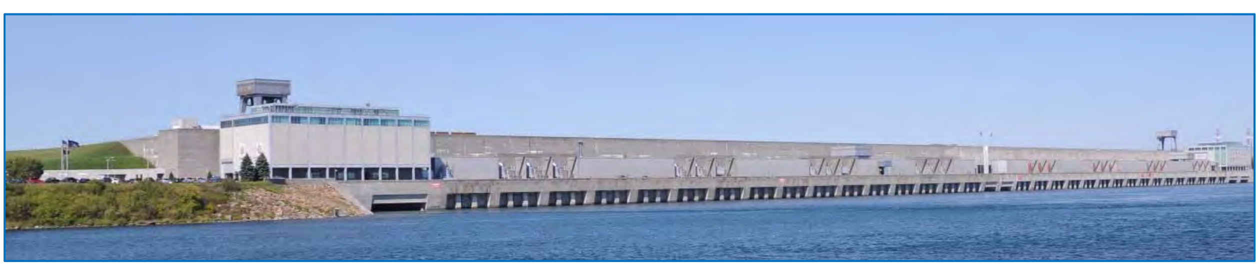
INTRODUCTION

St. Lawrence County has a rich history of trade, manufacturing, and agriculture, and it is the cultural and educational center of Northern New York. Nonetheless, as McKinsey & Co. recently stated in a study it did for the New York Power Authority (hereafter the "NYPA Study" or simply the "Study"):

> "St. Lawrence County has faced challenging times over the past five years. It has trailed peers and the state on many macroeconomic indicators, including annual employment, gross domestic product growth, and poverty rates. Industry is concentrated in non-tradable sectors like government and healthcare, with above-average vacancy rates on main streets. The agricultural sector is highly dependent on volatile dairy prices, and the area's manufacturing sector has experienced a significant decline." [St. Lawrence County Economic Development Study, p. 2 (New York Power Authority, December, 2015)]

Nonetheless, cutting-edge research continues to be done at the County's five institutions of higher learning; world-class aluminum, glass and other manufactured products are fabricated in the County's factories; and some of the best and most wholesome food and dairy products are grown and processed on the County's farms and in the County's cheese and yogurt plants. As the NYPA Study also says:

> "Despite recent challenges… St. Lawrence County has a unique opportunity to reshape its economic future."
>
> "St. Lawrence County has many assets—particularly its abundant and low-cost power, water, and land; high-caliber universities; and natural beauty—all of which can serve as a base on which to build economic success in the years ahead."



New York Power Authority

DATA SOURCES/COMMUNITY INVOLVEMENT

The intent of this Comprehensive Economic Development Strategy ("CEDS") is to combine the data and findings of the St. Lawrence County Economic Development Study with the data and findings from other recent analyses in a fresh effort to rethink how the County can maximize its unique characteristics in ways that will lead to robust economic activity, diversity, and growth. In preparing the Study, McKinsey supplemented its general statistical data collection and analysis strengths by interviewing at least 93 County government, business, industry, and education leaders, plus over 30 regional development players. Hence, the resulting Study combined background statistical rigor with "on-the-ground" corroboration.

The County evaluated the data and recommendations developed for and summarized in the NYPA Study by comparing and contrasting them with additional data and recommendations from other studies/analyses produced recently. These include, but are not limited to:

- The 2011 North Country regional strategic plan and its five subsequent annual updates/ reports (2012-16) prepared by the North Country Regional Economic Development Council (NCREDC), together with the Council's Upstate Revitalization Initiative submission to New York State in October, 2015. St. Lawrence County is one of the seven counties making up the North Country Region and the counties have many demographic, socio-economic, and development similarities. Therefore, even though the NCREDC has aggregated its data for seven counties, its recommendations can often be applied to St. Lawrence County alone and still make sense.
- The preliminary Brownfield Opportunities Area (BOA) study done for the former General Motors facility in Massena, New York, a process which was undertaken throughout 2015, 2016 and 2017. Especially useful from this analysis are the recommendations it developed for compatible reuse of the GM site and how such a reuse could fit into the ambient economy of the County.
- The input data for St. Lawrence County Agricultural Development Plan adopted by the St. Lawrence County Board of Legislators on December 5, 2016. Acting in concert with the Agricultural and Farmland Protection Board, the Planning Department held three public meetings on March 9, 18 and 23, 2016. In addition, with the help of a professor and her student from St. Lawrence University, the Planning Department also conducted (via the internet) a St. Lawrence County Agriculture Survey whose preliminary results were released on May 5, 2016. This CEDS has drawn on the data and recommendations collected through the efforts to create the Agricultural Development Plan as well as the Plan itself
- Data developed by the Center for Rural Entrepreneurship and presented at the April 25, 2016 North Country Symposium held on the campus of St. Lawrence University in Canton, New York.

The County supplemented and cross-checked data and recommendations from all these sources with the standard information sources made available by the US Bureau of the Census, the US and NY Departments of Labor, the US Department of Commerce, and other local, State, and federal agencies.

NOTE ON METHOD

Preparation of the CEDS

As part of its service contract dated December 21, 2016 with the St. Lawrence County Industrial Development Agency (IDA), the St. Lawrence County Board of Legislators delegated the preparation of the County's CEDS to the IDA. IDA staff worked with the staff of the St. Lawrence County IDA Local Development Corporation (together the "Agency") to provide the personnel who collaborated to research and prepare the CEDS drafts at every stage. Agency staff participated in the meetings associated with the NYPA Study, the REDC reports, the Agricultural Plan, the BOA, and the Symposium. A staff member of the IDA-LDC is also the executive director of the St. Lawrence County Workforce Development Board, another organization involved in the CEDS preparation (as is described below).

Preliminary Draft CEDS

The Agency first incorporated the data and findings quarried from the documents mentioned above into a preliminary draft CEDS (PDCEDS). In addition to the wealth of data – and recommended strategies and tactics – gleaned from these sources, the Agency staff relied on three other major inputs in preparing the PDCEDS. First, the staff followed the US Economic Development Administration's 3/9/16 Comprehensive Economic Development Strategy Content Guidelines in structuring the PDCEDS.

Second, the staff reviewed many of the "best practice" recommendations referenced in the EDA's Content Guidelines, together with CEDSs developed by other New York counties.

Finally, the Agency staff used the last St. Lawrence County CEDS (2009), as well as the updates to it through 2013, as a starting point for the County's attempts to rethink its development strategies and as a reference point against which to gauge success and failure.

Upon completion of the PDCEDS the Agency submitted it to two separate groups for review and comment. The first of these was the NYPA Advisory Committee. In addition to commissioning its Study of the County's economy, NYPA had also empaneled a volunteer Advisory Committee that it had asked to review the Study's progress as it was developed.

Since the Study's completion the Advisory Committee, with NYPA's continuing assistance, has continued to meet and has created four action groups – advanced manufacturing, agri-business, small business, and communities. Because the Advisory Committee had recently studied the County's economy, it made sense first to submit the PDCEDS to it for review.

NYPA ADVISORY COMMITTEE

Name (alpha order)	Affiliation	Community
Tony Collins	Clarkson University	Potsdam
Pat Curran	Curran Renewable Energy	Massena
Timmy Currier	Village of Massena	Massena
Ben Dixon	St. Lawrence University	Canton

Mark Dzwonczyk	Nicholville Telephone / SLIC	Nicholville
Blake Gendebien	Gendebien Farms	Ogdensburg
Joseph Gray	Town of Massena	Massena
Stephen Hunt	Empire State Development	Watertown
Patrick Kelly	St. Lawrence County IDA	Canton
Larry Legault	Town of Louisville	Louisville
Joseph Lightfoot	St. Lawrence County Legislature	Canton
Laurie Marr	Alcoa	Massena
Bob McNeil	River Valley Redevelopment Agency	Lisbon
Janet Otto-Cassada	Village of Waddington	Waddington
Tom Plastino	Workforce Development Board, SLCIDA	Canton
Marijean Remington	Atlantic Testing Laboratories	Canton
Zvi Szafran	SUNY Canton	Canton
Chris Thompson	St. Regis Mohawk Tribe	Akwesasne
John Wicke	SUNY Potsdam	Potsdam
Sandra Wright	Town of Waddington	Waddington

The second group to whom the Agency submitted the PDCEDS was the Developers Panel. The County IDA has for years hosted quarterly meetings of the local professional developers to provide a forum for the sharing of ideas and the coordination of activities among the IDA staff and the local and regional developers in the area. In the CEDS process the County has availed itself of this continuing group of professionals and has recruited it into the common task of reviewing and strengthening the CEDS.

Since there was significant overlap between the Panel and the Advisory Council, these two groups met together on several occasions to review the draft CEDS and members of both were solicited to provide specific action items to include in Section C of the final strategy. Many of the groups' recommendations and suggestions are included throughout the document.

The Developers Panel membership included at least 28 people, as follows:

DEVELOPERS PANEL

Name (alpha order)	Affiliation	Community
Heidi Ames	SLC Planning Office	Canton
Michelle Capone	Development Auth. of the North Country	Watertown
Wade Davis	Ogdensburg Bridge & Port Authority	Ogdensburg
Erin Draper	Reh Center for Entrepreneurship	Potsdam
Matt Draper	Shipley Center for Innovation	Potsdam
Ben Dixon	St. Lawrence University	Canton
Fred Hanss	Village of Potsdam Planning & Development	Potsdam
Anthony Hayden	NYS Dept. of Labor	Lake Placid
Stephen Hunt	Empire State Development	Watertown
James Murphy	Adirondack Economic Development Corp.	Saranac Lake
Patrick Kelly	SLC IDA	Canton

John Morrison	Ogdensburg Bridge & Port Authority	Ogdensburg
Brian Norton	SLC IDA	Canton
Rob Oram	CITEC	Potsdam
Jason Pfotenhauer	SLC Planning Office	Canton
Tom Plastino	SLC IDA	Canton
Sarah Purdy	City of Ogdensburg Manager	Ogdensburg
Dale Rice	SUNY Canton SBDC	Canton
John Rishe	Ogdensburg Bridge & Port Authority	Ogdensburg
Leigh Rodriguez	Village of Canton, Economic Development	Canton
Brooke Rouse	SLC Chamber of Commerce	Canton
Korleen Spilman	Gouverneur Area Development Corp.	Gouverneur
Tom Sullivan	Bus. Dev. Corp. for a Greater Massena	Massena
John Vandeloo	Empire State Development	Watertown
Lenore VanderZee	SUNY Canton	Canton
Chris Westbrook	Clifton Fine Economic Development Corp.	Wanakena
John Wicke	SUNY Potsdam	Potsdam
Patricia Wilson	New York Power Authority	Massena

In doing their reviews the Advisory Committee and the Developers Panel both attempted to analyze and catalogue the assets and strengths of the County as well its obstacles and challenges. The PDCEDS was also shared with selected faculty members at the local colleges to draw on additional expertise in regional economic development from these faculty members.

In addition to preparing an unflinching analysis of the County's economic condition (as well as the factors that have created this condition), the committees have put together a vision and an action plan for moving St. Lawrence County beyond the limits of the economy described by McKinsey (on page 1 above) into a healthier, more diverse, and resilient long-term economic condition.

Final Draft CEDS

Agency staff revised the PDCEDS numerous times in view of the comments and suggestions made by members of the two committees just described. The Agency simultaneously distributed the resulting Final Draft CEDS (FDCEDS) to the County's 15 elected legislators and County administrative officials and to the County's Workforce Development Board (WDB) members for preliminary review.

When the County prepared its 2009 CEDS, the core of the County's CEDS Committee was the St. Lawrence County Workforce Development Board. The WDB, whose primary role is to oversee the County's workforce investment strategies, includes by design among its members a diverse group of individuals from business, labor, education, government, workforce preparation, and economic development. It is also geographically diverse, an important consideration in a jurisdiction that covers over 2,800 square miles. For the 2017 process, this group was also provided an opportunity to review and provide input for the new CEDS. The following chart tabulates the Committee's membership and its affiliations:

SLC WORKFORCE DEVELOPMENT BOARD

Name (alpha order)	Affiliation	Community
Private Sector		
Jack Backus	Automobile dealer	Ogdensburg
Lynn Blevins	Automobile dealer	Ogdensburg
Sue Caswell	Retired hardware store owner	Waddington
Chris Cooper	Attorney	Star Lake
Peggy Fockler	Machine shop owner	Norfolk
Don Hooper	Retired accountant	Ogdensburg
LouAnne King	Dairy farm owner	Madrid
Daphne Pickert	Private not-for-profit (NYSARC) director	Canton
Peter Reiter	Construction materials manufacturer	Waddington
Ryan Schermerhorn	Zinc mine operations manager	Fowler
Thomas Sullivan	Office supplies company	Massena
Ellie Sullivan-Stripp	Livestock feed manufacturer	Canton
Dallas Sutton	Commercial lender (bank)	Ogdensburg
Eric Tessmer	Decorative ironwork manufacturer	Gouverneur
Leo Villeneuve	Electrical contractor	Colton
Public Sector		
Rich Daddario	Labor union executive	Massena
Pam Dority	ACCES-VR	Canton
David Evans	BOCES	Canton
Ron McDougall	Labor union executive	Gouverneur
June O'Neill	Dept. of Labor	Morley
Dale Rice	Small Business Development Center	Canton
Zvi Szafran	SUNY Canton (President)	Canton

Final CEDS

Agency staff revised the FDCEDS to incorporate into it many of the comments and suggestions made by members of the WDB and the BOL. The Agency then distributed the resulting Final CEDS to the St. Lawrence County Board of Legislators (BOL) for final review and approval. On September 29, 2017, the Agency itself approved the Final CEDS for final submission to the BOL. The BOL adopted the CEDS on September 11, 2017 and authorized the Agency to submit it to the Economic Development Administration.

A. SUMMARY BACKGROUND

St. Lawrence County's northern border parallels the St. Lawrence River, adjacent to Canada, in New York State's far North. It is therefore located on the peripheries of both the New York State and United States' economies.

The County's distance from the State and nation's markets and population centers is compounded by the inadequate surface transportation system currently serving the County. While the County comprises approximately 5% of the land mass of the State, it is one of the few areas in New York not directly served by a US four-lane interstate highway. It is served by two bridge crossings to Canada (near Massena and Ogdensburg) and by two airports with commercially scheduled flights (again in Massena and Ogdensburg), as well as a general aviation airport in Potsdam.

As the largest county in New York State (with a land area of 2,822 square miles), St. Lawrence County' acreage is larger than two states, Rhode Island and Delaware, yet its largest population "center" has fewer than 15,000 people. In fact, all five population centers of the County (the City of Ogdensburg and the villages of Canton, Gouverneur, Massena and Potsdam) had a combined population that totaled only about 39% of the County's total in 2010 (111,944 in the 2010 census). These five population centers are scattered from along a south to north axis that parallels the St. Lawrence River so that about 55 miles separate Gouverneur in the South from Massena in the North (with Canton and Potsdam about mid-way). About 35 miles separate Ogdensburg in the West from Potsdam in the East. In a word, the County lacks what geographers call a central place.

The geographic dispersion of the County's rural communities makes it difficult to view the County as having uniform labor, retail and tourism markets. This presents challenges in marketing and developing the communities for both outside investment and internal economic expansion. Perhaps as a result of its large size and the previously mentioned demographic dispersion, the economy of the County is characterized by a diverse set of industry types, sizes and locations. One aluminum reduction facility is located in Massena, taking advantage of the low-cost electricity sold from the Moses-Saunders Power Dam by the New York Power Authority. Three paper mills remain from a once-vibrant paper manufacturing industry which located in the County in the late 19^{th} and early 20th Centuries to take advantage of the wood fiber resources of the Adirondacks and the water and power resources of the County. Three mining operations located in Fowler, one of which has been closed for nearly ten years but is currently in the early stages of a proposed restart of operations, are the last vestiges of much larger mining operations in the County which once also included iron, zinc, talc, lead, and wollastonite.

A review of the County's economic condition clearly demonstrates overwhelming circumstances of economic need. According to US Census and New York State Department of Labor data, St. Lawrence County had:

- A 2010 population of 111,944, a decline of only .1% since 2000 but a decline of about 2.1% since 1980.

- At 6.0%, the State's 2nd highest unemployment rate in May, 2017;
- At $33,882 the State's 2nd lowest per capita income in 2015; and
- At $44,705 the State's lowest median household income (excluding New York City).

During the past four decades agricultural and manufacturing employment have declined substantially – as has the number of farms and manufacturing establishments. Historically, manufacturing and dairy farming were the primary drivers of the County's economy. The fact that such declines characterize many other rural economies across the State and (to a lesser extent the nation) does not make their decline in St. Lawrence County any less significant.

The overall number of farms and acres farmed in the County dropped by over 10% and 12% respectively during the last decade, compared with a 5% and a 7% decline Statewide for the same metrics during the same period. However, since the farm economy is overwhelmingly oriented to dairy, it is important to note that the amount of milk produced on the County's dairy farms has increased by 16% over the last decade.

The NYS Department of Labor reports that in 2016 manufacturing employment accounted for about 6.7% of the County's non-agricultural employment, down from over 20% in the early 1980's.

Retail business accounted for about 14% of the overall non-agricultural employment in the County in 2016. Health care, education, and government employment have grown and together accounted for over 51.4% of the County's non-agricultural employment in the same year – with government alone accounting for 29.2% of the total and accounting by far for the single largest share of the County's non-agricultural employment.

As can be imagined, the economic barriers facing the County have led to high unemployment and poverty rates. Historically, the County's unemployment rate has been, on average, several percentage points higher than the annual State unemployment rate. Additionally, approximately 20.3% of the County's citizens live below the poverty line. (This percentage is the 5th highest rate among the State's 62 counties.)

Part of the explanation for these high unemployment and poverty rates is that the small business sector is not thriving. McKinsey reports that 99.7% of the employing establishments in the County have fewer than 500 employees (and 96% have fewer than 50). Since the County's economy is so heavily dependent on small business it is a major concern that the County experienced a 1.3% contraction in small business enterprises between 2009 and 2014. And, the contraction in small businesses in what McKinsey calls "trade-able" sectors was even higher (2.3%).

Even though it is impossible to change the geography of St. Lawrence County, it is not impossible to reverse the consequences imposed on the County by its isolation. The purpose of this CEDS is to summarize the steps that the County plans to take to deal with the economic consequences that its geography and other socio-demographic realities impose on it.

B. SWOT ANALYSIS

Introduction

Evaluation of strengths, weaknesses, opportunities and threats is a standard starting point for a strategic planning process. It starts by asking what is positive and negative about the status quo, and what are the competitive advantages and disadvantages of an organization or community. As pointed out by the EDA Content Guidelines the advantages (strengths) and disadvantages (weaknesses) are usually internal in nature. The opportunities – often external in origin – prompt the strategies that an organization or community could pursue that would maximize its chances to capitalize on its strengths and minimize its weaknesses. The threats are the factors – also often external – that could derail efforts to capitalize on the defined opportunities.

Strengths

The relative competitive advantages of St. Lawrence County include:

- *The continuing vitality and adaptability of the County's dairy farms and their supporting infrastructure*:

Based on native good soils and a climate conducive to raising cows, St. Lawrence County continues to be one of the major milk producing counties in New York, even though its farm economy has been undergoing substantial structural changes, as farms get larger and as the owners of farm enterprises get older – all the while enduring the cyclicality that has characterized the production of milk since the coming of railroads in the second half of the 19th century created regional milk markets in the United States.

- *The continued operation of key manufacturing enterprises in the County that capitalize on one or more of the key resources of the County*, including:
    - Water – paper industry
    - Mineral reserves – wollastonite, zinc, marble
    - Low-cost electricity – especially for aluminum reduction, zinc processing, paper production
    - Milk – cheese and yogurt production
    - Wood supply – building products and energy generation
    - Labor force - for all of the above but also for the metal trades that require employees who can solve mechanical problems and operate fabrication equipment.

  It is important to note that most of these businesses produce "trade-able" products, i.e., products and services that are exported to customers who are located outside St. Lawrence County. The McKinsey Study highlighted the importance of maximizing such "trade-able" sector products as a key element in the future development of the County.

- *Proximity to Canada*: The County's border with eastern Ontario stretches for over 70 miles and is serviced by two bridge crossings. This proximity partially integrates the County's economy with eastern Ontario's, resulting in branches of Canadian firms assembling products for US sale and warehousing operations that sell/distribute US products to Canada from St. Lawrence County locations. Ogdensburg in particular has historically had some success in attracting Canadian branch plants to the County. For example, in the 1980s the Ogdensburg Bridge and Port Authority's (OBPA's) light industrial park was home to a cluster of Canadian high-technology plants that included Mitel, Compas, Newbridge, Filtran, and a half dozen others, in part this was because of the growth of electronics manufacturing in the 1980s in the Kanata suburb of Ottawa and in part because the OBPA and the St. Lawrence County IDA consistently courted such firms. Though most of these firms have disappeared (from both Ogdensburg and Kanata), Ogdensburg is presently home to a number of companies that have Canadian roots and/or have located in the City to be near the border.

- *The County's five colleges/universities*: Located in Canton, Potsdam, and Wanakena, the County's five institutions of higher learning had among them about 14,400 students in 2016 and employed about 1,540 faculty and staff. The wages and salaries paid by these institutions, especially the four located in the Canton-Potsdam core, support a web of retail and commercial establishments that serve the students and staff. While year-to-year enrollments of several of these institutions have declined slightly over the last 3-4 years, the overall trend for the last twenty years has been an increase in both students and staff. As further evidence that their operations have been expanding, four of them have made major physical plant additions in the last five years. In addition, several of the colleges have implemented and/or are developing entrepreneurship education curricula that are directly tied to creating startup businesses among the youth attending college in the County.

  As well as being key economic drivers of the County's economy, the colleges and universities add to the diversity of the County's culture by offering live performances, lectures and intellectually stimulating events for the community, that are both convenient and affordable. Related art, culture and heritage organizations have developed to complement these offerings, and therefore diversify cultural opportunities for residents and visitors, which is critical to quality of life and tourism appeal.

- *The beginnings of a knowledge-based enterprise cluster in the County*: Partly attributable to spin-off activities from the colleges, this cluster is clearly attracted by the workforce and culture sustained by the presence of so many colleges in the County. Resources like the Clarkson business incubators in three recently repurposed and renovated buildings (Peyton Hall, Damon Hall and Old Main), the efforts being mounted by SUNY Potsdam to encourage the development of music businesses, and SUNY Canton's planned Entrepreneurial Accelerator initiative are cases in point. While it is clearly too early to assert that such efforts have contributed enduringly to the County's economy, the very fact that the leaders of the local colleges have established them as priorities is a strength for the County.

- *Stable employment opportunities provided by major State facilities in the County*: These include three State correctional facilities (two in Ogdensburg and one in Gouverneur), the St. Lawrence Psychiatric Center in Ogdensburg, and the New York Power Authority's facilities in Massena. As with the colleges, these enterprises bring State and other governmental revenues into the County, typically providing above average wages and benefits compared to other industries in the region, and their presences have supported a complementary network of businesses that supply goods and services to them and their employees.

- *Substantial hydropower and wood fuel resources*: These allow employers and residents alike to enjoy reasonable energy rates based on renewable resources.

- *Access to natural gas from Canada*: All five population centers and many of the County's other smaller communities are serviced by St. Lawrence Gas, whose supply originates in Canada. This may not seem to be remarkable, but simple access to natural gas in such a decentralized and sparsely populated rural area is borderline remarkable. Its absence would constitute a major weakness.

- *Health care availability*: The County has five hospitals to serve its decentralized population plus other health care organizations that provide nursing care and services to the County's populations with disabilities. Four of the hospitals, together with United Helpers and St. Lawrence NYSARC, are among the top 20 employers in the County. Certainly several of these institutions are economically challenged as the economics and environment of the health care industry change nationally. Nonetheless, several give evidence of adapting to these changes and are already making additional the capital and personnel investments that respond to their changing circumstances.

- *Low crime rates*: The high level of perceived (and actual) public safety is a key quality of life measure that helps attract and keep people in the County.

- *Strong K-12 educational system*: The report card for the County's primary schools places the County's students at or higher than their New York State peers. According to the New York State Education Department Report Card for the 2014-15 school year, 92% of the County's students graduated with Regents diploma and 39% were recognized for Advanced Designation (compared to 37% statewide); and, the County's junior and senior high students eclipse the grades of their peers in English, Algebra, Geometry, History, Living Environment, Earth Science and Physics. Moreover, the local Board of Cooperative Educational Services (BOCES) system is receptive and able to quickly train up the local workforce on skills needed in sectors that range from skilled trades needed by manufacturers, to technicians needed (for examples) by hi-tech greenhouses and clean energy facilities.

- *Easy access to Canada's highway system*: The County has easy access to Canada's Route 401 at the Massena and Ogdensburg bridge crossings. These provide four-lane access east to Quebec and west to Toronto. The "401" not only connects the County with several of Canada's major metro communities but also with the US mid-west (at Detroit) and with US Rt. 81 (in Alexandria Bay). The Ogdensburg crossing gives direct access to Canada's Route 416 to Ottawa.

- *Air access*: Potsdam's airport has recently expanded its terminal facilities and services for business use and its fuel and runway enhancements now allow it to serve small jets. Both the Massena and Ogdensburg international airports provide daily scheduled services to Albany and the Massena airport has recently added service to Baltimore through its Essential Air contract with Boutique Air. Both airports have mounted aggressive efforts to improve facilities and extend their services. The Ogdensburg airport has recently completed a major reconstruction allowing it to accommodate larger planes, and scheduled service to Florida commenced in October, 2016. Plus, the airports in Ottawa and Montreal are within easy driving distance of most of the County's population and provide access to more extensive networks of national and international air travel. It is important to recognize that (for example) people living in Massena and Ogdensburg are about an hour from major international airports. Because of low road traffic densities, travel times from the County to major airports are often less than they would be in over-built metropolitan areas.

- *Port facilities*: A deep water port located in Ogdensburg provides the County easy access to the St. Lawrence Seaway and, via this waterway, to the US mid-west and to Europe.

- *Railroad service*: CSX railroad and several short lines provide freight services to all five major communities in the County, as well as to its remote southeastern quadrant (where a short line rail rehabilitation project is at this moment underway).

- *Broadband internet access*: The County's major population centers and much of its more rural population are served by state-of-the-art broadband, in some cases by multiple suppliers. This is attributable partly to the backbone fiber Open Access Network installed by the Development Authority of the North Country over ten years ago and partly to the efforts of a local broadband company (Slic.com) to supply telecomm services to many rural residents in the County. According to BroadBandNow, about 87% of the County's residents had access to 25 megabyte broadband service in mid-2017, compared with 98% statewide, and about 22% of the County's population could utilize 100 megabyte service (versus 73% statewide). Keeping in mind that the vast majority of the State's population is concentrated in larger metropolitan regions, the quality of the County's broadband services appears to compare more favorably to neighboring rural counties like the others in the North Country. For example, while 22 % access to 100 mbps is far below Clinton County's 76% and Essex County's 40%, it is far better than Franklin, Jefferson, Hamilton, and Lewis counties' services (15%, 6%, 0%, and 0% respectively).

- *Extensive scenic and outdoor recreational resources*: The County's relatively sparse population (42 people per square mile) has the advantage of affording ample acreages of greenspace and fresh water that not only attract tourists but are also a key components of the quality of life in the County for residents who want to hunt, fish, boat, engage in winter sports, or simply enjoy the great outdoors. The southwestern part of the County is in the Thousand Islands region and about a third of the County lies in the Adirondack Park – in which the County's Five Ponds wilderness has one of the last stands of virgin timber in the State. Travel to the Thousand Islands' attractions and to those of the central Adirondacks from anywhere in the County is an easy day trip.

- *Support for development efforts*: There is substantial interest in and support for economic development on the part of educational institutions and government agencies at all levels. A few examples include:
    - The New York Power Authority's financial support of loan and equity investment funds, operational costs of economic development organizations, and the NYPA Study cited earlier.
    - Clarkson University's Center for Advanced Materials Processing, Reh Center for Entrepreneurship, and Shipley Center for Innovation, not to mention the three incubator buildings mentioned earlier.
    - St. Lawrence University's sponsorship of the North Country Symposium (for the last 12 years).
    - The Ogdensburg Bridge and Port Authority's efforts to market its two industrial parks and its other facilities, including the expansion of the Ogdensburg International Airport to attract Canadian passengers.
    - Local communities' financial support for local development agencies and St. Lawrence County's support for the IDA, the St. Lawrence County Chamber of Commerce, and Cornell Cooperative Extension.

  Observers, including McKinsey, have contended that the numerous professionally staffed economic development agencies that operate in the County, many of which administer loan funds or other development incentives, "are fragmented, typically have mandated functions, and are difficult for the average County resident to access…" (Study, p. 3).

  Doubtless there is some accuracy in these observations. However, given the decentralization of the County's population centers, an equally cogent case can be made that having localized development functions which work in turn with the County's primary development organization, the IDA, is one of the County's strengths because it enlists people who are familiar with local conditions spread across 2,800 square miles in the service of the County's development. And, if nothing else, the fact that so many communities and groups support the diverse array of development efforts testifies that concern with and support for moving the County's economy forward is widespread. One purpose of this CEDS is to provide these organizations with a plan around which they can structure their activities and modify to suit their own communities.

- *Local and regional planning efforts*: There exist a number of local and regional planning initiatives and associated documents relevant to St. Lawrence County, including strategic plans, community development plans, comprehensive plans, and Brownfield Opportunity Area (BOA) revitalization plans. These plans reflect the input of stakeholder groups and often include a public outreach component that ratifies recommended actions/activities and priorities. They provide a concentrated source to inform economic and community development efforts and assess infrastructure needs. Aside from the fact that this CEDS has relied on many of the plans' data, findings, and recommendations, they provide outlines of actions that the County's decentralized communities and development organizations could take.

- *Resources for Economic Development*: In addition to the local support for development efforts just described, the County also benefits from development programs and incentives issuing from the State and federal governments.

  The New York Power Authority has funded the Greater Massena Economic Development Fund (originally at $1 million), the Seaway Private Equity Corporation (initially $10 million), the River Valley Redevelopment Agency (RVRA – initially $16 million), and most recently, the Northern New York Economic Development Fund (funded by NNY Power Proceeds). NYPA has created all of these programs for use in the County in support of business attraction and retention initiatives. And, these are in addition to the low-cost electric power it makes available through RVRA and the Massena Electric Department (20 megawatts) and the Preservation Power Program (over 230 megawatts). And, if more evidence were needed to demonstrate that NYPA is a major resource for economic development in the County, it has also supported activities in the river communities under the several settlement agreements it has structured with them.

  The County IDA has a long-standing relationship with Empire State Development that includes cooperative business attraction, infrastructure financing, project incentives and sustained efforts of working together to assist in the retention and expansion of existing firms within St. Lawrence County.

  In addition to these efforts, St. Lawrence County has participated in the activities of the North Country Regional Economic Development Council (NCREDC), one of the ten such councils created by the Governor in 2010. In addition to the fact that the County Board of Legislators' Chair serves as a member of the Council, staff from the IDA and the County's Planning Department have served on key committees of the NCREDC. Furthermore, businesses, not-for-profit organizations, and governments have received funding from the multiple State agencies through the annual Consolidated Funding Application process that the State implements through the regional councils. Not only was a St. Lawrence County applicant – the IDA – the recipient of the largest award ever made to a North County applicant (almost $10 million to reconstruct the Newton Falls Secondary Line) but over the first six years of the REDC program the State awarded over $44.6 million to County applicants (21% of the total North Country awards for the six years).

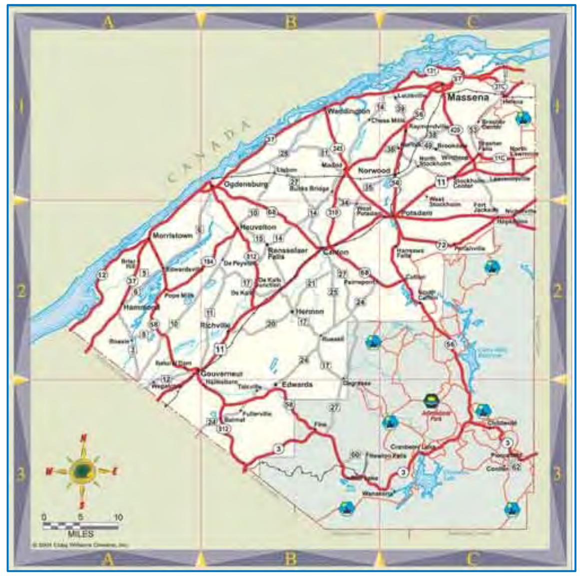
  The County is also within the project focus area outlined in the Northern Border Regional Commission for federal funding in support of economic and community development projects.

  And, finally, the County businesses can access at least eight other locally-originated loan funds that complement bank and equity investments – three of which are supervised by the County IDA's Local Development Corporation and Civic Development Corporation. While these funds' assets are relatively modest, they are especially responsive to small business needs.

Weaknesses

The relative competitive disadvantages of St. Lawrence County include:

- *Employer Isolation:* Small and mid-size employers throughout the County have testified that their ability to solve problems and to capitalize on opportunities is inhibited by the difficulties they have in socializing with and learning from their colleagues. This is partly because they have little time to engage in such activities because they spend their time running their businesses. But, their difficulties in this area are multiplied by the fact that the County's businesses are so decentralized, both because the County's population is so sparse and because it is distributed across many small communities that are located at substantial distances from one another. For example, a business in Massena is well over an hour distant from one in Gouverneur. Hence, the lack of a central place in the County which would allow business men and women to "see" much more of one another fragments the County's business community and inhibits the sharing of information and even doing business with one another. And, while modern telecommunications do help overcome such isolation to some extent, personal contact among employers is limited compared with what may be the case in a county whose economy focuses on a core community (e.g., Watertown, Plattsburgh and the larger cities across the country).



- *Non-trade-able enterprises*: The NYPA Study highlighted that only 40% of the County's Gross Domestic Product was created by non-trade-able sectors. The key thrust of this observation is that the County as a whole is not selling enough of its products and services to the rest of the world and that not enough income is coming *into* the County from elsewhere. Key non-trade-able sectors include government, K-12 educational institutions, and health care facilities which, though they may be major employers, and though they may attract transfer payments from the federal and State governments, nonetheless serve primarily local users and do not on balance increase the in-flow of wealth to the County. While this may not be the result of any economic policies or planning, it does result in less-wealth generating activity in the County. Whether it can be reversed by development policy, planning or initiatives remains to be seen.

- *Population decline*: The simple fact that the County's population has declined (by about 2.1%) since its 1980 highpoint is by itself a danger sign. Seldom do growing economies and population decline go together.

- While this 30-year population decline is relatively modest, the gross population statistics obscure some more troubling trends. A substantial portion of the heads counted in the decennial census are the populations resident at the local colleges and correctional facilities. While the jobs created by both the colleges and the institutions are critical elements in the County's economy, the census statistics probably disguise what is a larger decline in the number of permanent, voluntary residents in the County, i.e., the very people who might create businesses or provide skilled labor for such businesses over the long term.

- Equally important is the change in the composition of the County's population. First, as is true elsewhere in the country, the overall average age of the County's population is increasing – and to a greater degree than in many other parts of the State. Second, a disproportionate number of the County's youth are electing to leave the County for jobs in other areas. The latter phenomenon is – again – masked in the population statistics by the presence of a substantial number of temporary younger residents at the County's colleges and (to a lesser extent) in the three State correctional facilities located in the County.

- *Ownership transition*: Whether on the farms, in the plants, or in the offices, the owners/founders of many of the County's long-stable businesses are aging and the County will soon be faced with a rash of sales and (possibly) shut-downs that may deprive the County of key services and employment opportunities. This ties in with the youth out-migration mentioned earlier because many of the aging owners have no family inheritors to whom they can transfer their businesses. The County's recently-completed Agricultural Plan (2016) prepared by the County Planning Department has documented that this seems especially to be true in the farm economy.

- *Deteriorating workforce*: Employers universally lament that the motivation and training of the workforce has declined. This is especially true for enterprises that require higher skills and/or continuing learning on the job. To the extent that this perception is true, it is likely that it is one of the knock-on effects of the out-migration of young people cited earlier. Many of the best and the brightest are leaving the County for areas that they associate with more opportunities. The skill gaps are exacerbated by the difficulty for experienced workers displaced from one industry to learn the skills necessary to transition to the jobs available in a new industry. In any case, what is already a serious trained worker problem has been intensified by the fact that both the State and federal governments have cut back substantially on worker training and retraining investments. It is only fair to note that, though there are notable exceptions, many local employers have not felt it to be feasible to allocate more of their own resources to remedy the training/retraining gap.

- *Dairy efficiency*: The NYPA Study drew attention to the fact that, although the County's milk production has increased steadily, it is lagging the increase in other counties in New York State. Perhaps part of this is due to the influx of the Amish into the County, but the McKinsey analysts (in several discussion sessions) suggested that this could only be part of the explanation. McKinsey attributes the productivity lag to many County dairy farmers' failure to modernize their operations to keep up with their competitors elsewhere in the State and nation. The fact that the McKinsey analysts identified the modernization of dairy production as a major action item for the County implied that to fail to increase the pace of dairy industry modernization would make the County's dairy economy increasingly un-competitive. Local dairy operators and experts contend that the productivity levels of the County's farms are more related to the size and scale of individual operations, not an indication of a system-wide investment failure. The complexity of the issue will require specialized research and attention.

- *Deteriorating infrastructure*: Of course, as with any mature community, the entire country is faced with the problem of aging water and sewer lines, crumbling roads and bridges, etc. but just saying that infrastructure is deteriorating everywhere does not magically solve the problem of deteriorated roads and bridges, water and sewer systems, public buildings and recreational facilities, and other public venues in St. Lawrence County. Not only will significant investments need to be made to bring these facilities back to standard – requiring increased taxes to do so – but the residents' quality of life is suffering. Associated with this, as McKinsey noted, the County's Main streets are in need of improvement to make their communities more attractive.

- *Deteriorating housing stock*: Poverty and poor housing go hand in hand. But, the County's high poverty level is only part of the explanation for the deterioration of the County's housing stock. Another reason is that, like the population, it is aging rapidly. Much of it was built when the economy was much healthier, both in the population centers and on the farms and in the hamlets that served them. Regardless of the reasons, the deterioration of the housing stock has made it difficult for middle class renters/buyers to find satisfactory housing at affordable prices. In addition, the deteriorated housing stock has contributed to the deterioration of many of the County's downtowns and Main Streets.

- *Redundant facilities*. The facts that there are three operating airports in the County – two with regularly scheduled passenger service – and five full-service hospitals are explained by history and geography. Of course, these facilities – especially the hospitals – are major employers, but duplicated administrative costs raise questions about such facilities' longer-term economic viability. It is reasonable to suppose that duplicative administrative services could be reduced if such facilities were consolidated, especially since – with the exception of the recently upgraded Ogdensburg airport – they only draw customers from outside the County to a limited extent. The County's health care facilities are at best semi-trade-able enterprises. It is difficult to gauge, especially when considering the County's decentralized population, whether consolidation of such facilities would result in lower costs *and* better services. It is important to note, that regardless of local opinion, state and federal policy, as well as national healthcare trends, will likely prompt numerous affiliations and consolidations within the County healthcare industry in the coming years.

- *Dependence on government jobs*: As observed earlier, the NYPA Study highlighted that government employment is a key non-trade-able sector of the County's economy. There are 44 local governments in the County – plus 17 local school districts – plus numerous State and federal government offices and facilities. It is at the very least arguable that this complex network of organizations could deliver services at the same (or better) levels for less cost if the administrative duplications were reduced. While it is easy to posit this, it is much tougher actually to do it. As with redundant healthcare facilities, it is difficult to gauge whether consolidation of such organizations would necessarily result in lower costs and better services.

- *Limited access to retail choices*: The County is home to only one enclosed retail shopping mall (the St. Lawrence Centre, located in Massena) and it is struggling to maintain tenant occupancy. The County's limited retail choices often leads to residents shopping outside the County for clothing and other specialty products. The constraints that geography places on local retail availability are, of course, magnified by the increasing popularity of internet shopping and the broadband services that make such shopping possible.

- *Network of resources can be a mystery for businesses*.   Although one of the County's strengths may be the range of business support services and economic development organizations with missions to provide resources to develop businesses in the region, the network of service providers can be confusing to navigate for businesses and entrepreneurs. This linkage failure is exacerbated by the County's decentralized population centers, which makes it more difficult for entrepreneurs in one community to know how service providers located in another can help them.

- *Financially precarious status of local taxing jurisdictions*: Some of the County's local governments and school districts, led by the County itself, are among the most fiscally vulnerable in the State. These fiscal stresses have taken a long time to accumulate and they are likely to take an equally long time to remedy. While the economic growth that will result from the implementation of this CEDS will ultimately lead to the generation of additional tax revenues for the various jurisdictions, the present fiscal stresses could restrict their willingness to invest in development projects by providing temporary tax abatements and/or other support for expanding or relocating enterprises. In addition, their financial difficulties have contributed to the deterioration of the public infrastructure that supports existing and future businesses.

- *Mindset*: Many long-term County residents are convinced that the County is in a spiral of decline that seems to have no obvious end. This conviction is not simply the general pessimism of a population haunted by the national specter of rural decline, real though such decline may be. There is ample basis for the residents' discouragement – realities like the disappearance of major manufacturing and resource extraction enterprises, the departure of value-added businesses in the forest products and dairy industries, demographic realities of a declining and aging population, the out-migration of young people, deterioration of the housing stock, stagnant per capita and household incomes, and persistent high rates of poverty and unemployment, to name just a few.

  It is faint consolation that relative economic decline seems to characterize much of rural America in the early 21st century and that conditions are often worse elsewhere in the State and across the country. Whatever the mindset's causes, it may be a contributing factor to what is described as a low level of entrepreneurial ambition in the County as pointed out by the NYPA Study. While there are doubtless many exceptions to this assertion, the long-term economic realities cited in the previous paragraph have resulted in newcomers and entrepreneurs reporting that they are frequently asked by long-term residents the following question(s): why would you want to move here/start a business here/expand your business here? The presumption is that the land of opportunity is elsewhere. Such a mindset does not provide a propitious foundation for development initiatives.

Opportunities

- *NYPA Study recommendations*: The Study recommended that the County pursue over a dozen signature and supporting strategic initiatives. It is important to note that most of the Study's initiatives focused on increasing the activity of the trade-able sectors of the County's economy. The Study summarized the initiatives as follows:
  - ✓ Accelerate agriculture and agri-business by:
    - o **Building a greenhouse cluster**;
    - o Boosting dairy productivity; and
    - o Finding markets for the County's agricultural products.
  - ✓ Re-energize advanced materials manufacturing by:
    - o **Enhancing efforts to attract materials firms**;
    - o Integrating talent building; and
    - o Fostering innovation.
  - ✓ Expand small business by:
    - o **Creating an entrepreneur accelerator**;
    - o Fostering youth entrepreneurship; and
    - o Providing small business services
  - ✓ Revitalize communities, tourism, and mindsets by:
    - o **Creating a St. Lawrence Revitalization Fund**;
    - o Making St. Lawrence County the fishing capital of the world;
    - o Creating a Main Street consortium; and
    - o Coordinating tourism marketing.

  The Study did not pretend that the initiatives will be cheap to implement. McKinsey estimated that implementing all 13 of them would require (over five years) $18.8-24.8 million in public <u>operational</u> investment – not to mention $40-55 million in incentives. Simply focusing on the Study's four signature initiatives (in bold above) would require $12.7-16.2 million and $35-50 million for operations and incentives respectively.

  NYPA has promised to assist the County by providing personnel and financial assistance in implementing the initiatives developed in the Study. NYPA recently demonstrated its commitment to this initiative by creating and filling the Massena-based position of Economic Development Manager for Northern New York. Another example of NYPA's continuing commitment is its allocation of $1 million for what the Study called the "global search" (see next two bullets).

- *Advanced materials*: Since the early 19th century the County has produced and frequently processed materials from its mines, forests, fields, and mills. One explanation for the disappearance of many of these enterprises over the last 50 years is that they produced raw and/or partly processed commodities that competed globally with lower-cost producers. McKinsey proposed in the NYPA Study that the County focus on developing/attracting firms that produce highly-engineered, advanced materials – whether these involve aluminum, glass, zinc, wood biomass, or other materials whose preparation and processing will add substantial value – and then either sell them at a premium price to global manufacturers of final products or (better still) attract such final producer operations to the County.

It is important here to recognize the limitations that at least to some degree apply to more than one of McKinsey's recommendations. With regard to advanced materials, St Lawrence County may not have adequate infrastructure to support successful investments in this field. For example, Clarkson has a group that does basic research into materials but that work presently finds its market outside the area, among established or newer businesses that productize it. Given a new development in material science by a scientist at Clarkson (or elsewhere), significant advanced engineering work on developing usable design and production processes would then need to be done, work that may not be able to be completed with the resources available in the County. Once the engineering work is completed, there may be little reason to locate actual production near the design function. In short, the value-added knowledge is easier to transport than is the design and/or manufacturing workforce.

Hence, if the County is to successfully pursue McKinsey's advanced manufacturing recommendation, it must focus on enterprises that put a premium on the types of business advantages that St. Lawrence County offers – not the least of which may be the proximity of raw materials, plentiful fresh water, and low-cost energy.

As noted above, NYPA has allocated funding to secure specialty consulting services that will assist the County's developers to find both the firms that will produce the advanced materials and those that manufacture such materials into finished products. This commitment in itself is a great opportunity to identify not only companies to target, but also to match their needs and circumstances with the "infrastructure" that characterizes the County as it is or that it can develop.

- *Agricultural diversification*: The NYPA Study explored ways in which the County could diversify its agricultural economy. Its signature initiative focused on a major effort to develop all-season covered agriculture in the County – selling fresh vegetables, herbs, and flowers to northeastern metro areas whose markets are currently being supplied by growers a continent away. The global search will include an effort to explore investors' appetite for locating such ventures in the County.

  McKinsey's analysts had considered other diversification initiatives – e.g., expanding livestock raising into sheep and goats – but did not include such ventures in the final Study. Other analyses – e.g., the 2016 St. Lawrence County Agricultural Development Plan – have focused attention on diversification beyond covered agriculture (e.g., sheep raising).

- *Redevelop value-added agricultural products processing*: There is little doubt that the processed food industry has changed dramatically over the past 40 years, both nationally and locally. There are doubtless competitive forces at play that explain the exit of traditional mainstream processing plants from the County and understanding these forces is essential as St Lawrence County decides whether it can identify and follow a strategy that can re-energize its value-added processing profile. As with advanced manufacturing and covered agriculture, NYPA's global search will provide the County with a great opportunity to examine the competitive forces of the processing sector in an effort to determine whether and how the County's raw materials, especially milk, can be processed locally and thereby give the processing companies an advantage over their competition.

Capitalize on other local strengths to develop new trade-able sectors: The County has significant strengths in a variety of sectors that could provide a basis for its expanding economy. Three paper mills continue to operate in the County; the key raw materials for the industry – water, fiber, and power – continue to be major resources. Several machine shop and metals fabrication businesses call the County their homes. The fact that the Crane School of Music is located at SUNY Potsdam could leverage music industry businesses. The location of five colleges in the County could prompt additional college service businesses to locate in the County – to provide services to other colleges as well as the ones nearby.

Additionally, the tourism economy plays a major role in the County's current economic profile but the common lament is that it could play a much larger role. The usual contention is that what limits the growth of the County's tourism industry is that it lacks a central "destination" community or a magnet facility, like the Olympic facilities in Lake Placid, that would "brand" the County nationally and globally and create traffic for a growing aggregation of businesses that will sell goods and services to people attracted to the central destination. The Study suggested that the County should brand itself as the "Fishing Capital of the World" based on the growing freshwater fishing reputation of the County's vast river and lake resources. However, to date, the river communities that have focused their development activities on drawing outsiders to the County to fish have based their efforts primarily on financing and other resources provided by the public sector. While efforts so far to engage private sector investors in the effort have not gotten very far – possibly because many fishing activities do not lend themselves to the development of concentrated destination facilities – the County's communities have made some promising beginnings that could provide the springboard for the development of more complete packages of diverse lodging, transportation, food, attractions, retail sales venues, fishing guide services, etc.

Nonetheless, in spite of promising beginnings, efforts to brand the County as a major fishing destination does not create a "destination facility" in the County. And, observing that the County lacks such a destination facility does not automatically mean that the County should and can attract/create one. What has characterized the County's tourism economy since its inception in the late 19th century has been its decentralization – and few tourism activities are more decentralized than sport fishing.

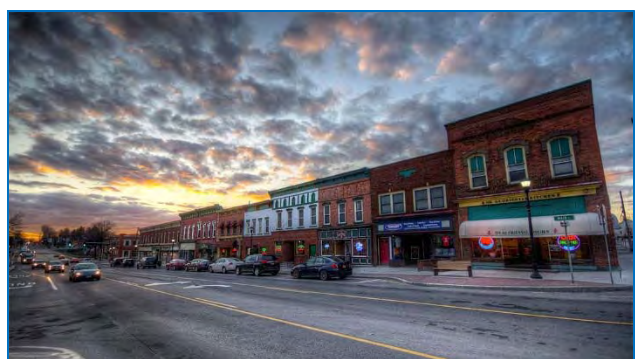
In short, like the rest of the County's economy, tourism and recreation are scattered along the County's many rivers and trails and communities. Hunting, birdwatching, fishing, boating, cross-county skiing, snowmobiling, and the like do not adapt well to the destination model of tourism. Therefore, though it is always possible that a destination developer could transform the County's tourism economy with a mega-facility, the efforts to identify such a developer must be paralleled by efforts to more effectively capitalize on the County's rivers (through initiatives like the Blueways and waterfront revitalization efforts) and trails (recreational trails/trail systems or thematic trails, such as the Wine Trail), accompanied by thematic packaging (art, culture, cuisine, ag, recreational activities) and consistent branding and marketing to create a sense of 'centralization' around these features, thereby creating an effective destination concept, if not a single focus facility, for the County.

Such a strategy is not unprecedented. For example, there is the European model for catered tours – paddling, mountain biking, road cycling, fishing, etc that require no central destination but which could have significant benefits for the County's tourism businesses. Many analysts have pointed to Vermont as a prime example of non-destination tourism. Perhaps St. Lawrence County could learn from Vermont and in fact position itself as an alternative or complementary destination for tourists who traditionally visit Vermont, i.e., as an equally unsullied natural environment at half the price.

- *Redevelop value-added processing for other locally-originated raw materials*: Milk, wood, water, zinc, mine tailings, and many other minerals are good examples of raw materials that could be processed into products in the County, rather than be shipped elsewhere for value to be added. Some aspects of this opportunity will be explored through the already mentioned global search initiative.

- *Come (back) here*: There is no denying that the bright lights – not to mention economic opportunities – of the big cities have for centuries attracted people away from their rural American homes. Countering this age-old pattern may be too much for the County to undertake, but there is opportunity in the fact that many of these rural migrants become disenchanted by the often grim environments and hectic cultures of metro America. Many look for opportunities to return to a less chaotic lifestyle, one that in particular is more compatible with raising children in a safe and less crowded environment.

Furthermore, there is the potential that some of the students who came to the County to go to school at one of its colleges – and then left for the metropolis – may be interested in some day returning to the communities of their alma maters because they have become disillusioned with the stresses of urban life.



Main Street Canton, NY

In addition, it is assumed that a not insignificant number of urban and suburban natives – the great majority of who probably have never heard of St. Lawrence County – are looking for the same kind of less hectic environment to which they can relocate, especially when they start to raise families.

Of course, many of the people who fit into the three categories of potential "relocatees" – departed natives, college alums, and disillusioned metropolitan natives – if they are already prosperous enough, could migrate to the suburbs or to gentrified city neighborhoods. But, some are disenchanted by both the cities and the suburbs and it is this fraction – the true "metro renegades" – to whom a place like St. Lawrence County has appealed to in the past and will continue to appeal to in the future.

So, the opportunity is there; the challenge is for the County to figure out ways to identify and attract all three kinds of metro renegades to the County, who ideally will bring their businesses and/or their business ideas, skills, capital, and spirit of enterprise to the County with them.

Of course, it's not enough for the County simply to be non-metro; it is only one of many, many rural areas in the country that can offer a less hectic alternative location for living and working. The challenge for developers is to fashion and market a compelling case that St. Lawrence County should be a destination of choice for people who can conduct their businesses profitably in a locale that combines the best of both worlds – small town culture with comfortable proximity to the wider world of Ottawa, Montreal, Burlington, and New York's Thruway cities. This initiative does not need to attract thousands of people to the County to make an impact. A few dozen of the above-mentioned relocatees, with their businesses/business ideas, capital, and energy would provide a significant lift to the County's economy.

If such people are to relocate to the County it is essential that the County's communities have "downtowns" that are livable and inviting. McKinsey's observations about the deterioration of the County's main streets have already been cited but it is essential for the success of any "come (back) here" initiatives that the County and its communities support projects that develop and redevelop both privately and publically owned facilities, including cultural and recreational venues. If the County's essential sales proposition is that a metro renegade can live better here than somewhere else in rural America, then the County's communities must pay focused attention to the quality of life that "in-comers" will experience when setting local resource priorities.

Threats

- *Remote Location*: Since it is impossible to change the geography of St. Lawrence County, the consequences imposed on the County by its relative isolation will continue to hamper the County's development. This is especially true for some of the County's key economic drivers – for example, dairy production and processing, paper and metals manufacturing, and higher education. These are trade-able sectors for whom more difficult access to and from the outside world translates into a competitive disadvantage.

  However, it is important to note that the County's perceived remoteness is not just a result of geography. Improved highway and other communications infrastructure could provide the County and its residents with better opportunities to diversify and grow their economy. Of course such improvements will require massive public investment of the kind that requires State and federal government participation. Whether such investments will be forthcoming during increasingly difficult times is problematical, no matter how much effort local developers put into the cause. Furthermore, if the County's developers prioritize massive infrastructure initiatives, no matter how important in the long run such initiatives might be, it will divert attention and resources away from more immediately productive development initiatives.

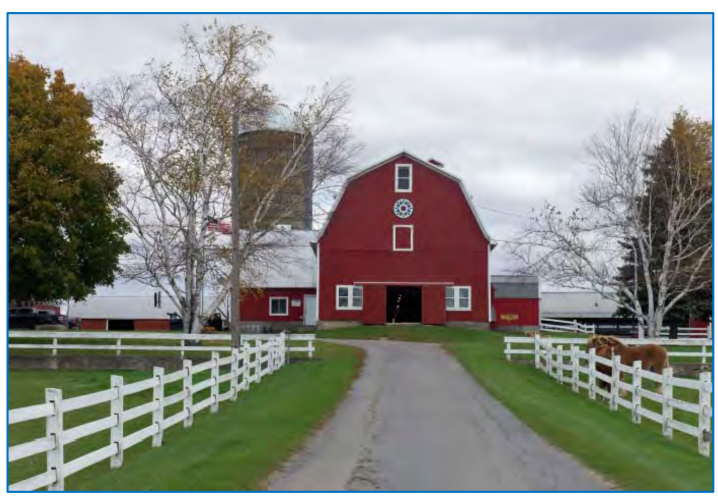
- *The Regional Economies in Nearby Canadian Population Centers:* While other border locations, like Buffalo and Plattsburgh, may have seen greater investment from Canadian-based firms, neither Ottawa nor the smaller cities in eastern Ontario located near the St. Lawrence County border are primarily manufacturing centers. For example, as the capitol of Canada, Ottawa is obviously in many ways a "government" town, and many of its larger governmental and related-agency employers are not realistic targets for investing and creating jobs in St. Lawrence County. Comparatively, the Montreal region in Quebec and the southwestern/Toronto region of Ontario are home to many more manufacturing operations, especially in the aerospace, defense and automotive industries, but have a greater proximity to the other border regions in New York State. Additionally, unlike both Plattsburgh and Buffalo, St. Lawrence County is not situated on one of the highly developed travel corridors connecting Canada to the industrial and population centers of the Northeast, Mid-Atlantic and Midwestern United States.

- *Population decentralization*: Geography is destiny when it comes to the County's lack of a central place as well. The strategies its developers devise must be compatible with the fact that the County's population – and the places where they work, shop, go to school, get medical care, etc. – will be scattered across 2,800 square miles. This decentralization and lack of larger, well-known central community makes the costs of redundant operational and capital facilities almost inevitable and makes promoting the region to prospective companies, tourists, students and residents all the more difficult.

- *Continuing vulnerability to international commodity demand/supply fluctuations*. Milk, aluminum, zinc, paper, wood biomass – all are materials produced by companies whose operations are dictated directly by international trends over which the local companies have little or no control. While farms and mining and manufacturing companies continue to be major employers in the County's economy, the same shocks that have (for example) reduced employment in aluminum reduction and fabrication from about 4,000 in the 1970s to 650 today may continue. What makes this especially discouraging is that there seems to be little or nothing that local initiatives can do to impact these global trends.

- *Milk pricing*: The price that County farmers get for the milk they produce is partly affected by the global market for milk but it is also affected by a complex regulatory system that may protect farmers from the worst effects of a totally free market but also inhibits them from benefiting in times of high demand.

- *Decline of the family farm*: Farm owners in the County are as a group getting older; many are nearing retirement age and few younger farmers can afford the investment required to own a modern farm. Many of the County's older farmers have already sold out to larger farms. Reportedly, few of the younger generation are interested in taking over their family farms, even if they had the capital to do so. Many have already left the farm to work elsewhere in the County or have departed for other areas and other jobs. In short, the County's farm economy is losing both its entrepreneurs and its traditional workforce.



Blake & Carmen Gendebien's Farm, Lisbon NY

In spite of this, and while the number of the County's farms has declined precipitously, the size of them – when measured by the amount of milk produced – has increased substantially. Furthermore, as the County's 2016 Agricultural Plan says, between 2002 and 2012, "despite fewer dairy farms and a decline in the number of dairy cows, dairy production volume grew over the past decade and dominates as an economic powerhouse to the county's economy." With this said, it remains true that the ever increasing size of dairy operations will continue to create stresses in the traditional dairy economy that must be addressed.

- *Continuing exposure to international currency fluctuations*: Fluctuations in the value of the US dollar, especially in relation to the Canadian dollar, can create havoc with cross-border trade between Ontario (and the rest of Canada) and the County. Recently the Canadian dollar has been trading at historic lows and, though there has been some increase in its value over the last six months, its low value will continue to create real stresses for many border community retail, service, and tourist enterprises. The point is that this threat is another global condition that local initiatives seem powerless to affect.

- *Reputation of New York as a high-cost state for doing business*: A frequently cited difficulty in attracting and maintaining employers in the County is New York's reputation as a high tax and cost state. To add to the difficulty, the State has a reputation for regulatory complexity that parallels its high tax image. The County can do little or nothing to affect the State's reputation, whether deserved or not.

- *Increasing cost of college education and associated college-related debt*: One of the County's success stories is the growth and stability of the economic activity generated by the County's five colleges. Though a fair number of the students attending them come from the County, for the most part the colleges represent a trade-able sector of the County's economy, i.e., they bring revenue into the County from elsewhere, analogously to the way the sale of milk does. The question is whether the steadily increasing costs of attending college and the increase in student debt will result in the near future in declines in the revenues flowing to local colleges.

  This is of course a national question that has received much attention over the last 4-5 years as some pundits have observed that the whole country is witnessing a "higher education bubble" that is bound to "pop" sooner or later. One thing is sure: a slowdown in the national consumption of higher educational services could have a seriously negative effect on the County's economy if it means that fewer students are attracted to the County's five colleges. It is disturbing to note that several of the County's five colleges 2016-17 enrollments were down, even if only slightly, from their high points 2-3 years ago.


Clarkson University

No one is more aware of the potential reduction in demand for higher educational services than the college themselves. The County's colleges have stepped up their recruitment efforts and have uniformly tried to develop programs that give them unique competitive advantages in the college market, but most of the nation's other colleges are doubtless doing the same. With this said, it still remains true that, since the market forces at work in the higher education sector are much broader than St. Lawrence County, slackening demand for higher education nationally could create a serious threat to the County's economy.

- *Bright lights, big city*: The chances are that, no matter how sensible a development strategy the County adopts, substantial numbers of the young people born and/or raised here will migrate to cities. Migration of the young from rural America to the big cities is nothing new, nor is it confined to St. Lawrence County; rural out-migration has characterized the US economy since at least the late nineteenth century. The County can minimize this drain by doing its best to develop good employment opportunities and quality of life options that can minimize this drain but it is unlikely that anything it can do will totally stanch the bleeding. As mentioned in the Opportunities section above, what the County might be able to succeed in doing is to bring some of these people back when they have established themselves in business and started to raise families.

C. STRATEGIC DIRECTION/ACTION PLAN

Vision Statement

St. Lawrence County will build a healthy, diverse and growing economy that will create good jobs for us and our children through the implementation of economic and workforce development initiatives that capitalize on our current strengths, assets and attributes while mitigating the factors limiting our development. The economy we create will be characterized by vibrant small business growth, increased tourism and recreation, renewed manufacturing, diversified and increasingly efficient agriculture, and full capitalization on our educational resources.

Goals

1. Retain and expand existing employers within the County by prioritizing activities that assist in ensuring viability through more profitable operations;
2. Increase the County's employer base by expanding efforts that foster a supportive environment for locally-originated startups;
3. Promote outside investment in and relocation to the County by focusing resources on markets that can be reached effectively and by seeking partnerships to reach markets beyond local reach;
4. Initiate a systemic economic development research program that will develop, on an ongoing basis, new ideas to be converted into future development initiatives and actions; and
5. Maintain and enhance the County's physical infrastructure and make the communities of the County attractive and vibrant places for current and potential residents.

Objectives

The County's strategy for growing its economy starts by recognizing that jobs and tax base are created only by profitable enterprises. As a result, the County must concentrate on expanding existing operations and growing new operations, while pursuing a strategy which consistently demonstrates how it helps: (1) existing enterprises to become/stay profitable and expand their operations and/or (2) identify and create new enterprises that can start or locate profitable operations in the County. While it is important for the County to ensure the continuing operations of enterprises that have reached maturity, the County can only reverse its economic deterioration by helping existing enterprises to expand and/or grow or to locate new enterprises in the County. Four key objectives must be accomplished in order to achieve the goals of expanding and increasing the County's employer base, they are:

1. Encourage and assist existing employers to maintain their current operations (hereafter "retention") that provide stable employment and traditional products and services to customers within and outside the County.
2. Encourage and assist existing employers in the County to expand their operations (hereafter "expansion") by using the tools at the developers' command to help them to become more cost-efficient, to develop new products and services, and to locate new customers.
3. Identify entrepreneurs already resident in the County and encourage them to start up new businesses in the County (hereafter called "already here" startups).

4. Identify entrepreneurs and businesses located outside the County who could profitably start businesses in the County and/or profitably move their businesses to the County (hereafter called "come here" startups).

It has already been noted that it is critical to match development personnel resources with the County's strategies. While it is easy to say that the CEDS will concentrate on the four strategies just described, they themselves are not specific enough to provide much guidance to those who propose to implement them. What follows brings other criteria to bear to prioritize certain classes of actions:

1. *Maintaining existing employers/expanding existing employers*: Developers will focus their efforts and resources into maintaining current employers in the County, as well as helping such employers expand. Priority attention will be given to employers who exhibit one or more of the following characteristics:

    a. They are "primary" industries, i.e., enterprises that sell significant percentages of their products and services to customers largely located outside the County. McKinsey calls these enterprises the "trade-able sector" and recommends that the County should increase its trade-able sectors if it is to prompt economic growth. Such enterprises are not confined, for example, to manufacturing and agriculture. They may include government and not-for-profit enterprises – such as the universities and State correctional institutions – whose revenues largely come from out-of-County sources.
    b. They utilize the County's skilled workers to convert its natural resource materials into produce value-added products for sale, in addition to exporting the raw materials elsewhere for processing.
    c. They are owned or controlled locally. This includes those enterprises whose owners may be reaching retirement age and assisting them may involve helping them find and finance new local owners to whom they can transfer their enterprises.
    d. They provide products or services that support primary (trade-able sector) enterprises located in the County (e.g., the local machine shops that provide services to enterprises like Arconic and Corning).
    e. Their products and services give County residents a locally-produced or delivered choice.

2. *Encouraging entrepreneurs already resident in the County*: Developers must and will put more effort and resources on finding entrepreneurs in the County and help them start new businesses, who exhibit one or more of the following characteristics:

    a. They are primary industries, i.e., their products and services will be primarily sold to customers largely located outside the County.
    b. They will add value to the County's existing natural and human resources and/or capitalize on the existing workforce in the County.
    c. They will be owned or controlled locally and have promise to grow substantially.
    d. They will provide products or services that support primary (trade-able sector) enterprises located in the County.
    e. Their products and services will give County residents a locally-produced or delivered choice.

3. *Promoting outside investment in the County:* Developers will focus their efforts and resources on finding entrepreneurs and businesses located outside the County and help them start new businesses in or import their businesses to the County, who exhibit one or more of the following characteristics:

   a. They are primary industries, i.e., their products and services will be primarily sold to customers largely located outside the County.
   b. They will add value to the County's existing physical resources and/or capitalize on the existing workforce in the County.
   c. They will provide products or services that support primary (trade-able sector) enterprises located in the County.
   d. Their products and services will give County residents a locally-produced or delivered choice.

   The resources to reach these outside individuals and enterprises are limited by cost and staff time available to commit on the sustained basis necessary to reach all, or even most, potential markets. In this strategy, available local resources will be focused on the highest probability, and most cost effective, outreach efforts. This includes the IDA managing its own series of promotional and sales activities and, especially, supplementing these efforts by partnering with the New York Power Authority on the global search initiative.

Research Agenda and Development Tools

The County realizes that this CEDS – since it IS the owners' manual for the revival of the County's economy – must be based on a firm commitment to do regular updates based on both experience and changing expectations. This is not primarily because EDA expects annual updates, but more because any strategic plan begins to become irrelevant the moment it is completed. Only by making a firm commitment to a regular and rigorous process of revision can the CEDS truly be the owners' manual that the County wants it to be.

If the experience gained during the preparation of the NYPA Study taught the County anything, it was that there are many topics that McKinsey didn't have time to explore that might yield viable development initiatives that could be incorporated into later revisions to the CEDS. For example, their researchers didn't have the time to explore such questions as the destinations of "round" wood harvested in but exported from the County and whether and how turning such an exported resource into value-added products in the County could give an enterprise a competitive advantage by locating here.

Therefore, this CEDS incorporates this and numerous other "research" questions into its immediate action plan – with the promise of more to come in the future. In a very real sense this Research Agenda constitutes the kind of R&D that is the lifeblood of an expanding entity -- the kind of "entity" that the County plans to be. The whole point of doing research into such topics is to determine which ones to convert into new actions in future revisions to the action plan, together with plans for implementation.

Along the same lines as an ongoing development research agenda, it makes sense to look at the development "tools" that the development "technicians" have to work with, i.e., the infrastructure of economic development services in the County, in order to determine where additional programs/policies are required if the County is to achieve the development objectives summarized in this document. Therefore, this section of this CEDS also proposes actions that the County's development community will take to develop new and better tools so they can be more effective in implementing the actions described elsewhere in this plan – all of which are targeted to expanding existing enterprises and growing new ones.

Infrastructure

Infrastructure encompasses more than the physical assets – e.g., roads, water, and sewer – usually owned by government or quasi-government agencies. Privately owned services – like rail, telecomm, natural gas, and electric power – are infrastructure as well. This CEDS also extends the term to include buildings and other facilities, including industrial and business parks, where enterprises that employ people can locate to produce their products and provide their services. Additional consideration is given to the main streets, housing, and community development challenges and requirements that contribute to the appearance, vibrancy and livability within the various communities of the County.

There is also no doubt that employers require more than physical infrastructure to operate profitably. Therefore, at least one specific objective included in the action plan is directly focused on strengthening the network of communication and services that existing, emerging, and new enterprises need in order to overcome the burden of isolation that the County's decentralization places on them and that inhibits their stability and growth. This rather distinctive "infrastructure" action is, however, considered below under the "ENTERPRISE RETENTION AND EXPANSION" action group – because it focuses on the creation of a network which in itself may not generate business retention or expansion but which will foster such activities.

It is essential that the County maintain and improve its infrastructure to enable all of the enterprises targeted by the CEDS – farms, manufacturers, universities, hotels, etc – to be profitable and to employ people. Employers' ability to compete effectively is limited by neglected and out-of-date infrastructure, not to mention neglected downtowns. Neglected infrastructure places severe limits on growth, so its improvement must go hand-in-hand with the focus on the enterprises whose creation and growth will reverse the County's comparative deterioration.

Actions

How to Read This Section:

Five Matrices: The actions that follow are grouped into five matrices which mirror the five goals of the CEDS: (1) Enterprise Retention and Expansion; (2) Startup Enterprises; (3) Promotion of Outside Investment; (4) Research Agenda; and (5) Infrastructure.

Timeline: The calendar for accomplishment of the actions in the matrices is divided into year 1 and years 2-5. The CEDS development team is committed to review this plan annually to determine what has and has not been accomplished and what amendments may need to be made in order to adapt it to changing circumstances. Therefore, the matrices have classified the specified action into those who must be accomplished over the next year and those that will be initiated in years 2-5. The plan is to renew the "next year" classification every year when the County's CEDS committee and the St. Lawrence County Industrial Development Agency conduct the annual review.

Leadership Entities: What follows is a glossary of the development organizations who have been tasked with either primary of supporting roles in executing the actions described below.

Organization	Acronym
Associated Colleges of the St. Lawrence Valley	AC
Business Development Corporation for a Greater Massena	BDC
Cornell Cooperative Extension	CCE
Council for International Trade, Technology, Education, and Communication	CITEC
New York Power Authority	NYPA
Ogdensburg Bridge and Port Authority	OBPA
RACER Trust (owner of the GM property)	RACER
St. Lawrence County Chamber of Commerce	Chamber
St. Lawrence County Industrial Development Agency, IDA Local Development Corporation and IDA Civic Development Corporation	IDA
St. Lawrence County One-Stop Career Center	One Stop
St. Lawrence County Planning Department	Planning
St. Lawrence County Workforce Development Board	WDB
Small Business Opportunity Network	SBON
SUNY Canton Small Business Development Center	SBDC
Workforce Development Institute	WDI

Action Plan

Key Performance Indicators (KPIs): The Key Performance Indicators (KPIs) included in the matrices in the Action Plan below itemize some of the criteria that the County will use to judge its success in meeting its goals and objectives. These are "input" criteria. These KPIs will be further supplemented by the results-focused benchmarks discussed in the Evaluation Framework section of this CEDS (section D below).

No.	Problem/Opportunity/Need	Solution/Response/Action	Yrs. 1	Yrs. 2-5	Responsible/ Leadership Entity	Key Performance Indicator(s)
1: ENTERPRISE RETENTION AND EXPANSION						
1.a	Employer Isolation: Locally-owned employers feel isolated and need a forum that enables them to learn mutually from one another and to assist each other in solving problems and in planning and implementing business expansions.	Create an entrepreneur-led Small Business Opportunity Network (SBON) that will develop ways to overcome the isolation created by the County's decentralization.	X		IDA Chamber	Creation of SBON & hold 4 events in 1st year
1.b	Workforce Training and Talent Building: Companies need assistance to find and train the skilled labor they need to maintain and/or expand operations.	Working at least partly through the SBON, maintain skills inventory for county employers, establish collaboration among the County's training providers (colleges, BOCES, etc.) to create worker training programs in high need areas as outlined in the NYPA McKinsey Study. Seek out sources outside WIOA system to provide flexible, enhanced funding for talent building programs.		X	WDB WDI One-Stop Partners IDA NYPA	Create inventory and feed to SBON for action by businesses

No.	Problem/Opportunity/Need	Solution/Response/Action	Yrs. 1	Yrs. 2-5	Responsible/ Leadership Entity	Key Performance Indicator(s)
1.c	Incentive Awareness. Existing businesses are unaware of local, State, and federal incentive programs that can help them maintain and expand their operations in the County.	With the help of the SBON, develop and deliver a detailed business briefing program to assist enterprises to learn about and access funding from local, State, and federal economic development programs, e.g., from the River Valley Agency's loan program and through the NCREDC's CFA process.	X		IDA Local Developers	Conduct at least one such training session per year in concert with the SBON
1.d	Business Transitions: Many locally-owned businesses (including farms) have no succession plans and their key owners and/or managers are nearing retirement age.	With the help of the SBON, identify locally-owned companies whose top management/ownership is reaching retirement age and help them to plan for and execute transitions that will enable their companies to maintain/expand operations in the County (including farms and other agricultural enterprises).		X	CITEC CCE IDA	Create list and feed to SBON for action by businesses
1.e	Growing from Within: Many small, established, locally-owned County businesses have the capacity to expand if encouraged and assisted to do so.	Modeled on Buffalo's Center for Entrepreneurial Development, create a business-led business growth training program and support group that will allow business to help one another learn the skills they need to grow and to access the right resources they need to foster such growth.	X		IDA	Prepare program, secure SBON buy-in, and secure financing
1.f	College/Community Interaction: Businesses and colleges need to better connect in order for both to benefit from local businesses supplying the local colleges' needs for services and supplies.	Working at least partly through the SBON, identify opportunities to provide services locally to colleges and help companies to provide them.		X	IDA AC Colleges	Create list of college needs and feed back to SBON

No.	Problem/Opportunity/Need	Solution/Response/Action	Yrs. 1	Yrs. 2-5	Responsible/ Leadership Entity	Key Performance Indicator(s)
1.g	<u>Hospital/Community Interaction:</u> Businesses and local health care facilities need to better connect in order for both to benefit from local businesses supplying the local health care facilities' needs for services and supplies.	Working at least partly through the SBON, identify opportunities to provide services locally to hospitals and other healthcare facilities and help companies to provide them.		X	IDA Hospitals	Create list of hospital needs and feed back to SBON
1.h	<u>Critical Employer Panel:</u> Several global and national corporations continue to be major employers in St. Lawrence County and the County needs to be proactive in dealing with changes in corporate strategies that may result in them closing or curtailing operations at their St. Lawrence County facilities.	Working with members of the panel endeavor to get early warnings of possible closure or curtailment of operations at such companies' St. Lawrence County facilities and assess the options available to the County to respond to such possible events.	X		IDA	Create panel
1.i	<u>Higher Education Conference Board:</u> Recognizing the importance of the County's five colleges as drivers of the County's development, stay in close touch with them to determine how they respond to changes in their "industry" and how these changes may affect the County's economy.	Consult on a periodic basis with the County's five colleges to prepare and update a contingency plan for dealing with possible changes, and especially with any contractions, in the County's higher education sector.		X	IDA AC	Create panel

No.	Problem/Opportunity/Need	Solution/Response/Action	Yrs. 1	Yrs. 2-5	Responsible/ Leadership Entity	Key Performance Indicator(s)
2: STARTUP ENTERPRISES						
2.a.	Startup "Early Detection" System: Mainline economic development agencies need better information to identify locally originated business startups earlier in the startup process.	Collaborate closely with local existing economic development organizations and the SBON to focus on assisting local startups – e.g., SUNY Canton's Small Business Development Center, Clarkson's Reh Center for Entrepreneurship and Shipley Center for Innovation, the Adirondack Economic Development Corporation, the Seaway Private Equity Corporation, and Point Positive. Also rely on trusted intermediaries (e.g., accountants and bankers) and the Small Business Network (see A.1.a above) to identify local entrepreneurs as soon as possible.	X		IDA	Utilize the SBON as a source for early detection; expand and focus quarterly developers meetings on early detection; expand quarterly meetings to include trusted intermediaries
2.b	Startup Incentives: Mainline economic development agencies need to intervene earlier in the startup process to provide incentives that will assist locally originated business startups increase their chances of success.	Collaborate closely with existing local economic development organizations and trusted intermediaries (e.g., accountants, banks) who are best situated to identify entrepreneurs who are poised to start new businesses in their communities, and help to finance such startups.	X		IDA	Expand and focus quarterly developers meetings on early intervention

No.	Problem/Opportunity/Need	Solution/Response/Action	Yrs. 1	Yrs. 2-5	Responsible/ Leadership Entity	Key Performance Indicator(s)
2.c	Incentive Awareness. New startups are unaware of local, State, and federal incentive programs that can help them maintain and expand their operations in the County.	Develop and deliver a business briefing program to assist startup enterprises to learn about and to access funding from local, State, and federal economic development programs, e.g., from the River Valley Redevelopment Agency's loan program and through the North Country Regional Economic Development Council's Consolidated Funding Application process.	X		IDA	Briefing program, modeled on SBON's 1.c above
2.d	Employee Training: New startup companies need more assistance to help them find and train the skilled labor they need to maintain and/or expand operations.	Establish closer collaborations among the County's five colleges (and other training organizations) in order to create and fund worker training programs that are not only dependent on State DOL and/or federal WIOA funding.		X	WDB WDI One-Stop Partners	Develop funding program for review by SBON and develop funding for said program
2.e	Entrepreneurial Accelerator: The combination of detecting, informing and incentivizing new start-ups is only part of the entrepreneurial process. It is critical to create a supporting environment in which startups can grow and prosper.	Build an integrated program that delivers the networks, coaching, training and other intensive supports to aid high-potential growth entrepreneurs in the County in scaling-up their businesses. Use the SBON to close the information gap between existing business support service providers (SBDC, colleges, IDA, other developers) and the business/entrepreneur community.	X		IDA Clarkson SUNY Canton SBDC NYPA	Develop model and initiate Entrepreneurial Accelerator

No.	Problem/Opportunity/Need	Solution/Response/Action	Yrs. 1	Yrs. 2-5	Responsible/ Leadership Entity	Key Performance Indicator(s)
3: PROMOTION OF OUTSIDE INVESTMENT IN THE COUNTY						
3.a	Attraction Program: The County needs to attract more entrepreneurs and enterprises from elsewhere to the County.	1. Collaborate closely with NYPA to conduct the "global search" associated with the NYPA Study to attract advanced manufacturing firms, value-added dairy processing, and large-scale covered agriculture investors and businesses to the County.	X		NYPA IDA	Initiate global search
		2. Expand on previous experimental come-back-here initiatives by planning, funding, and implementing a focused and rigorous marketing campaign to identify and attract previous County residents who will relocate businesses to the County that they have started elsewhere and/or to bring their business ideas and capital and skills back to the County in order to start businesses here.	X		IDA	Prepare plan for solicitation, develop funding for same, and execute at least one contact initiative
		3. Conduct a come-back-here business plan competition as part of 3.a.2 above.	X		IDA Reh Center NYPA	Conduct 1st annual CBH business plan competition

		4. Collaborate closely with SUNY Potsdam to conduct a music industry marketing effort designed to take advantage of the world-renowned Crane School of Music's location in the County by demonstrating to music businesses the profitable advantages of locating their operations in the "Crane-shadow".	X		SUNY Potsdam IDA	Attend at least two music business trade shows
		5. Continue to solicit Canadian companies - primarily located in the Toronto-Ottawa-Montreal corridor - to establish branch operations in the County through which they can more profitably sell into American markets while minimizing management travel and liaison costs, focusing initially on the food, security, and packaging industries.	X		IDA Local Developers	Continue to attend trade shows, do print/direct mail advertising, etc.
		6. As part of 3.a.5 above, conduct a business plan competition that engages Canadian companies to site branches of their operations in the County.	X	X	IDA Reh Center NYPA	Conduct annual Canadian bus. plan competition
		7. Market SLC's plentiful, low-cost, renewable, dependable energy to companies who value sustainable energy as part of their corporate missions and market targeting.		X	IDA NYPA National Grid Massena Electric	Research and contact companies that value such energy sources

		8. Collaborate closely with Canton/Potsdam's four colleges to create a tech services call center cluster in Canton/Potsdam area to capitalize on high education levels of local labor force.		X	IDA	Prepare fulfillment materials for call center market and attend at least two trade shows to test them
3.b	Upgrade IT Use for Marketing: Traditional marketing tactics – e.g., direct mail, trade shows, etc. – are becoming less effective and less cost efficient. New tactics must be developed and implemented.	Continue annual preparation of a comprehensive marketing plan for the County and include in it a more effective use of modern telecommunications to locate and develop entrepreneurs and businesses that can conduct profitable operations in the County, including collaborating with skilled consultants (e.g., through the global search cited in 3.a.1 above) acting on the County's behalf.	X		IDA	Prepare plan annually
3.c	Marketing Implementation: Marketing plans are only as good as the follow-up that marketing and sales staff can implement.	Install and utilize a modern Customer Relationship Management system at the Agency offices to assist in expanding the Agency's formal business calling program.	X		IDA	Install and implement system

No.	Problem/Opportunity/Need	Solution/Response/Action	Yrs. 1	Yrs. 2-5	Responsible/ Leadership Entity	Key Performance Indicator(s)
4: RESEARCH AGENDA AND DEVELOPMENT TOOLS						
4.a	Development R&D: The actions enumerated in this CEDS must be revised and/or supplemented by new initiatives during the plan's five-year life. The County's mainline developers must prioritize doing research into new initiatives that will achieve the County's development goals and objectives.	Prepare a prioritized list of development-related research topics that explore better utilization of the County's natural and other resources. Conduct research that will, if yielding favorable results, be converted into future development actions – including, but certainly not limited to, research into:			IDA (unless otherwise specified)	Finished reports/decision documents
		1. The quantities and destinations of wood raw materials harvested in the County that are exported elsewhere and what value-added products they are turned into.	X			
		2. The domestic and international market for reverse osmosis and/or UHT milk and what prevents such products from being produced in the County.		X		
		3. What enterprises require both low-cost electric power and large quantities of fresh water and what business case would enable such enterprises to locate in the County?		X		
		4. Examine the assumption that a substantial fraction of the people who	X			

		own or want to start businesses in the US want to escape the pressures of urban life and "return" to the presumed slower pace of rural communities and how such people could be attracted to the County, along with their business ideas, skills, and capital.				
		5. Survey mining wastes in the County to determine what recoverable minerals are in the mine wastes at places like Star Lake and Fowler and what value-added uses for such materials could be located here and what would it take to establish such operations here.		X		
		6. Research feasibility/need of a fully-serviced large-scale 'super industrial park' within the County.		X		
		7. Determine whether much more extensive raising/processing of sheep/goats and grass-fed beef presents distinctive growth opportunities for the County and how such growth could be facilitated.	X			
		8. Determine whether County's location on the Canadian border presents an opportunity of attracting warehousing operations that sell American products	X			

		into Canada.				
		9. Research programs that incentivize siting or expanding companies whose operations are based on knowledge management and whose fixed assets offer little collateral to secure conventional loans.	X			
		10. Identify, research, and adopt an economic modeling program that the County can use to measure the performance of its economy in order to help gauge whether this plan's actions are yielding results.	X			
		11. Determine the extent, if any, to which McKinsey's claim that the County's dairy farms lag peers in NYS due to lack of investment and innovation is true.		X	IDA, with CCE assistance	
		12. Survey the rules and requirements of standard development loan incentive programs and identify especially those that could be amended through local action to make them available to farm businesses	X		IDA, with CCE assistance	

4.b	St. Lawrence Revitalization Fund: Overcome the lack of strong tourism "packages" (as per McKinsey) in the County and coordinate and expand revitalization efforts in the County's tourism venues and main streets.	As recommended by the NYPA Study, create a Revitalization Fund that will cross-invest in Main Streets, facilities, and events that create the coordinated foundation for a major increase in tourism-related business growth.	X		Chamber NYPA IDA	Create Fund
4.c	Renewable Energy Profile: Some analysts predict that renewable energy will drive future community development.	Create an inventory of the renewable energy resources available in St. Lawrence County and determine how these resources could provide a platform for additional development in the County.		X	North Country Symposium Workgroup Planning	Inventory and analysis
4.d	Workforce Training: Define what skills workers will need in the near- and long-term to support area companies.	Prepare an inventory of worker skills with county employers and work with the County's training providers (colleges, BOCES, etc.) to create and deliver those programs.		X	WDB One Stop Partners IDA	Inventory and analysis coordinated with actions 1.b and 2.d
4.e	Coordinated Tourism Marketing: Efforts to grow and promote the tourism development initiatives of the County and its communities are limited by a lack of focus and coordination.	Create a sustained effort to catalogue, promote and coordinate the various attractions, events and initiatives necessary to significantly grow the tourism economy of the County (for example, by making St. Lawrence County the fishing capital of the world or other similar destination activities).	X		Chamber IDA NYPA	Tourism plan
4.f	Development without Smokestacks: Knowledge-based enterprises – e.g., consultancies and computer and internet-based companies -- that can provide services to customers globally from a County location are frequently unable to access development incentives because their business models do not require	Research whether a fund or program can be created that will incentivize siting or expanding companies whose operations are based on knowledge management and whose fixed assets offer little collateral to secure conventional loans.		X	IDA	Study

	substantial investment in fixed assets (compared, for example, with traditional manufacturing firms).					
4.g	<u>Developing Trade-able Sectors</u>: The NYPA Study found that the County's economy was characterized by too few enterprises that produced/sold goods and services outside the County.	Create an Innovation Collaboration Fund designed to encourage the expansion of existing enterprises by providing loans and equity injections tied to business expansion for trade-able sector products and services, focused on the advanced materials sector.	X		IDA	Create fund and secure financing for it
4.h	<u>"Leakage" of Revenue</u>: Some analysts conclude that the County needlessly "leaks" trade and disposable income to other areas because it lacks key commercial, retail, and service businesses that could be profitably located in the County but are not.	Evaluate available data to determine which consumer products and services County residents procure outside the County and determine whether such products and services could be provided by local enterprises.		X	Planning Office IDA	Study

No.	Problem/Opportunity/Need	Solution/Response/Action	Yrs. 1	Yrs. 2-5	Responsible/ Leadership Entity	Key Performance Indicator(s)
5: INFRASTRUCTURE						
5.a	<u>Infrastructure Technical Assistance</u>: County communities, especially those without professional planning and development staff, frequently have difficulty in identifying, prioritizing, and financing infrastructure projects that directly support development activities	Assist communities to develop plans for public infrastructure maintenance and expansion projects that support economic development and assist them to apply for funding for such projects from local, State, and federal economic development programs, e.g., the Economic Development Administration, the River Valley Redevelopment Agency's Community Development/Environmental Improvement program, and the North Country Regional Economic Development Council's Consolidated Funding Application process.	X		Communities Local developers IDA Planning Office	Plans and funding applications
5.b	<u>Industrial/Business Park Development</u>: The County's industrial and business parks are filling up and there are idled but fully-serviced industrial sites that could provide redevelopment opportunities for firms that will establish new operations in both.	Develop/redevelop specific sites suited for economic development purposes in the County, including: 1. Redevelop the Alcoa East site into a single-user or multi-user industrial park. 2. Continue the cleanup and redevelopment of the J&L site at Benson Mines and finish rehabilitating the Newton Falls Secondary Railroad serving the J&L and Newton Falls industrial sites. 3. Redevelop the former Newton Falls Fine Paper facility.	 1. X 2. X 3. X		 1. Alcoa IDA 2. St. Lawrence County Planning Office IDA 3. IDA	Specific listed facilities

		4. Develop an industrial or business park in the Town of Massena on 70 acres donated by Alcoa to the Town of Massena.		X	Town of Massena IDA BDC	
		5. Cooperate with the RACER Trust and the North Country Redevelopment Task Force to repurpose the old GM site in the Town of Massena.		X	RACER IDA BDC	
		6. Partner with the existing owners of industrial and business parks and properties in the County to market them more effectively.	X		IDA Local Developers Real Estate Agents	
		7. Cooperate with Clarkson University to market space in the Peyton Hall and Damon Hall incubators to businesses.	X		Clarkson IDA Village of Potsdam	
		8. Finance and construct a new shell building in the Ogdensburg Commerce Park.	X		OBPA	
		9. Extend water and sewer to other OBPA-owned industrial park sites	X		OBPA	
5.c	<u>Privately-Owned Development Sites</u>: Industrial and commercial sites that might be attractive to expanding and/or relocating businesses in the County not owned by public bodies get forgotten	1. Working closely with the County's real estate brokers and community development officials, create and keep up to date an inventory of vacant or underused industrial and commercial properties that	X		IDA	

		are available for redevelopment in the County. 2. Assist in the redevelopment efforts at the St. Lawrence Centre Mall in Massena including new indoor turf facility and other entertainment facility investments.	 X		 IDA/BDC	
5.d	Telecommunications/Broadband	Continue to support broadband buildout throughout the communities of the County.	X		SLIC/DANC/ Verizon/etc.	
5.e	Water/sewer	1. Continue efforts to improve water and sewer infrastructure to the Maple Hill, Route 11 (South of E. J. Noble building), and Sullivan/Riverside Drive areas in the Village of Canton; construct a new sewer lift station and transmission line on northeastern side of Village; and construct a new water main from Waterman Hill to the Village limits. 2. Replace water line in East Massena and provide necessary water/sewer infrastructure to RACER and Alcoa East sites. 3. Replace water piping and water lines and paint/maintain water tank in the Village of Massena. 4. Extend water and sewer to OBPA Commerce Park, Heavy Industrial Park and Wagner Road development sites.	X X X X		Village of Canton Town of Massena Town of Massena OBPA	

5.f	Roads/Bridges	1. Finance the restoration and modernization of the Ogdensburg-Prescott International Bridge. 2. Support efforts to eliminate traffic blockages along the US Route 11 corridor.	X X		OBPA All agencies	
5.g	Airports	1. Continue infrastructure expansion at the Ogdensburg International Airport. 2. Build new hangar at the Massena Airport.	X X		OBPA Town of Massena	
5.h	Ports	Secure additional funding for the dredging and expanding the Port of Ogdensburg and other infrastructure projects which enhance the Port's productivity and cargo handling capabilities.	X		OBPA	
5.i	Railroads	Rehabilitate the New York and Ogdensburg Railroad and associated bridges that connect the Port of Ogdensburg with the CSX main line.		X	OBPA	
5.j	Electric Power	Determine on case by case basis appropriate means for assisting renewable energy projects throughout the County.	X		IDA/SLC/ Municipalities	
5.k	Natural Gas	Extend gas line along Route 11 in the Town of Gouverneur.	X		National Grid/Town of Gouverneur	
5.l	Parks/Recreation Areas	Install white water parks in Canton and Potsdam (Grasse and Raquette rivers)		X	Villages of Canton and Potsdam	

D. EVALUATION FRAMEWORK

Introduction

The Key Performance Indicators associated with the various actions included in the Action Plan above are mostly "input" numbers and activities, i.e., measures of the efforts expended, not the impacts that will result. While diligent implementation of these actions may set the stage for economic progress, the actions themselves are not the results that evidence a "healthy, diverse and growing economy that will create good jobs for ourselves and our children" and an "economy … characterized by vibrant small business growth, increased tourism and recreation, renewed manufacturing, diversified and increasingly efficient agriculture, and full capitalization on our educational resources." This Evaluation Framework of the CEDS, therefore, attempts to translate the actions listed in Action Plan into outputs that can be measured and that will demonstrate that actions described in the CEDS are having positive impacts.

Doing this is not as straightforward a process as one would like it to be. Establishing cause and effect, even in an economy with as (relatively) few "moving parts" as St. Lawrence County's, is maddeningly difficult in the best of circumstances. And, the circumstances are NOT the best, if only because the data available to gauge progress are either unavailable or not current or not fine-grained enough to be meaningful.

A good example of this last point is action 1.a, which proposes to create a Small Business Opportunity Network that will help overcome the isolation that constrains the viability and expansion of local businesses. Not only have local businesses suggested that such a Network should be created but it would also help achieve one of the key recommendations of the McKinsey study (Expand Rural Small Business). Clearly one key way to determine whether such a Network is having positive effect is that businesses help plan and participate in it; the very fact that business owners/manager spend time engaged in such a Network is evidence that they think participation in the SBON is a worthwhile way to spend their precious time. But, active engagement by itself does not produce impacts that can be directly measured. Hence, in this important initiative – and in others like it – input metrics will have to suffice to set benchmarks that will be used to gauge the success of various actions prescribed by this CEDS.

The McKinsey analysts examined the County by comparing the County with "peer" counties elsewhere in the country based on a variety of metrics. The following two key statistical measures were published in the final report:

- GDP per capita growth
- Employment growth

Though McKinsey's analysis never explained statistically how it chose the peer counties, McKinsey was satisfied that its data broadly demonstrated that the County has consistently fallen short on at least key economic benchmarks compared with similarly situated counties during the reference period (roughly the last five years of available data, generally 2009-2014). McKinsey's data ratified with general statistics what residents of the County already pretty much knew to be true from experience and anecdote, i.e., that the County has fallen further behind in recent decades.

Though its analysis did not establish a statistical case for what has caused this decline, McKinsey did recommend thirteen actions, across four broad categories of economic activity, that its analysts predicted would result in economic gains both in the County's total employment and in increased GDP. Many of the McKinsey initiatives coordinate well with the strategies that the County developers had targeted for years. However, the fact that McKinsey Study made no effort to demonstrate cause and effect between the specific actions it recommended and the growth of the County's economy suggests that even McKinsey finds it difficult to establish the precise relationship between local actions and macro-scale economic benchmarks.

It is important to understand clearly this last point. McKinsey certainly did forecast that, if the County implements all the initiatives it recommended, the County's implied GDP growth rate would by 2020 increase from what could be expected if nothing were done (1.8%) to between 2.4% and 2.8%. However, there are at least three problems with benchmarking performance by utilizing such measures.

First, by the time the data to determine whether the initiatives have been successful are available, it would probably be 2022 or 2023, i.e., five of six years from now. Needless to say, using this benchmark to determine success or failure of the initiatives or their implementation in the short run is impossible. In a phrase, by the time the County knows how well it has done, it will be too late to do anything.

Second, McKinsey's analysis recognizes that, even if the County did nothing more than it does now to grow its economy, its implied annual GDP growth rate would be 1.8%. That means that a lot of the 2.4-2.8% growth will happen in any case. In other words, even if growth rate data were available almost instantly, there is no clear way to separate the growth attributable to the McKinsey initiatives and the growth attributable simply to the normal operations of the underlying economy.

Third, and finally, macro-data are practically unusable because a local economy like St. Lawrence County's is not an isolated system unto itself. A good argument can be made that local actions, constrained by local resource availability, can easily be distorted by the confounding variables created by State-wide, national, and global economic events and forces – events and forces over which a jurisdiction the size of St. Lawrence County has little or no influence. In short it is anyone's guess what actions the County's developers could take that would clearly and ambiguously translate into increases in the GDP growth, employment growth rates, or other macro-indicators.

What all this leads to is the observation that, to project evaluative goals based on measures like the ones cited by McKinsey, is not the most useful way to gauge the success or failure of the actions described in this CEDS. Saying this is NOT to say that collecting such data is of no value at all. Quite the contrary: one of the Research Agenda actions called for above (4.a.9) is to "...Identify, research, and adopt an economic modeling program that the County can use to measure the performance of its economy in order to help gauge whether this plan's actions are yielding results."

So, while the County expects that – all other things being equal – most of the actions described in sections 1-3 of the Action Plan above will help improve metrics like the County's GDP and employment, not to mention other high-level economic indicators, this Evaluation Framework will outline other, intermediary output targets that are more immediately measureable and which are likely to be "proxies" for the macro-metrics cited by McKinsey. In other words, these same intermediate indicators arguably should affect high-level indicators but their influence on such indicators cannot be mapped in a simple cause and effect relationship because multiple confounding variables intervene.

Finally, the issue of data availability must be confronted, i.e., how the County developers can access/collect contemporary data to measure success in meeting the intermediary metrics described below.

The best and most consistent locally available data sets – even though they don't measure some key variables that should be measured, e.g., startups – are associated with the reports that local authorities like the IDA and its associated corporations submit annually to the New York State Comptroller and the Authority Budget Office (ABO). True, the formats of these reports are not consistent with one another, depending on the type of organization that is the subject of the report. Nor are they filed by many development public-sector organizations that are not classified as "public authorities" by State law. Nor do they apply to banks and private developers. Nonetheless, the IDA, the IDA-LDC, and the IDA-CDC do submit these reports and the data these organizations collect to develop these reports provide a near-contemporary record of actions that can be compared over time.

It is absolutely critical to understand the limits of the Comptroller/ABO data. First, the data required for reports of the three organizations summarized in this CEDS as the "IDA" are, as already mentioned, not uniform across the three organizations. Second, the only data that can be reported are those that result from "projects" as these are defined by State law and regulation – which by no means includes everything that developers do to help companies stay in business and/or become more profitable. One of the things that cannot be captured by such data is the advice and assistance that developers provide to companies and individuals but that do not result in projects as they are defined by NYS.

With these last reservations in mind, the project information that many of the local development organizations send to the Comptroller/ABO is prepared annually, is consistent in format over time, and does cover all the projects that these organizations have provided assistance related to key development incentives. Therefore, while not all-inclusive and requiring some computations to create uniformity, the annual Comptroller/ABO reports are the best output data available and they provide many of the key intermediary indicators identified in the matrix in the next few pages.

Intermediary Indicators

The evaluation plan for this CEDS is based primarily on the actions described in the first three matrices of section C's Action Plan. For the most part, it ignores the actions described in matrices 4 and 5. This makes sense because the actions in 4 -5 in themselves – focusing on research, tool development and infrastructure – will not directly create the economic impact that this CEDS is targeting.

Certainly the matrix 4 actions – i.e., infrastructure maintenance and construction – will create construction and supply jobs and the importance of these should not be disregarded. But, their impacts are temporary. More significant is that investment in such projects creates the context in which enterprises that employ people can operate more profitably and therefore employ more people. Their greatest effects, though real and important, are indirect.

Even more indirect are the impacts that should eventually result from the research and tool development agenda described in matrix 5. As explained already it is important for the County to execute the actions in both matrices but none of the actions directly creates profitable enterprises.

The actions summarized in matrices 1, 2, and 3 commit the County to executing 17 different initiatives. Two of the initiatives – 3.b and 3.c. – are procedural in that they involve continuing and enhancing the annual comprehensive marketing plan prepared by the IDA and installing a modern Customer Relationship Management system for the IDA staff to use in executing that plan. While both of these initiatives are critically important, in themselves they do not create more profitable companies or start/attract companies. The challenge is how to measure the impacts of the remaining 15 action steps – and how to do so with data that is readily available in a timely fashion.

As has been noted above, the information that the IDA and its associates collect in order to file required annual reports with the Comptroller and the ABO provides the "raw material" that the County can use to create meaningful intermediary indicators. This data can be grouped into two different classes of impacts: those associated with employment and those associated with the tax base. The table below illustrates how these metrics will work.

It starts with a baseline that will be produced by averaging the impacts in all these categories over two years (2016 and 2017). The County has chosen these two years so as to recognize that many of the activities described in actions 1-3 will not begin to yield impacts until at least a year after they are first initiated. Therefore, the first data that should show clearly the results of the Action Plan will be available in April, 2019 (for the year 2018, compared with 2016-17).

Beyond the baseline data to be developed no later than April, 2018 (for 2016-17), the table then sets objectives for the impacts that will be achieved as the County implements the 15 substantive activities described in actions 1-3 that maintain/expand and/or create/attract profitable companies that will generate additional employment and tax base. In each year, the targets will be calculated by multiplying the baseline average by an additional 15%.

Metric	2016-17 Baseline Average	2018 Target	2019 Target	2020 Target
Jobs-related	To be calculated	15%	30%	45%
New jobs	To be calculated	15%	30%	45%
Retained jobs	To be calculated	15%	30%	45%
New payroll	To be calculated	15%	30%	45%
Retained payroll	To be calculated	15%	30%	45%
Tax base-related	To be calculated	15%	30%	45%
Total project value	To be calculated	15%	30%	45%
Corporate investment	To be calculated	15%	30%	45%
Assessed value increase	To be calculated	15%	30%	45%
Sales tax revenues increase	To be calculated	15%	30%	45%

The preceding table prompts one question and two observations.

First, the question is where did the impact targets come from? The answer is that the County took McKinsey's mid-range increase in the implied annual growth rate over the next three years (2.6%) and subtracted the baseline growth rate (1.8%) from it. The result, .8%, represents a net increase of about 45% in the implied annual growth rate over what the County would achieve if it did nothing new. Then the County assumed that the 15 actions described in sections 1-3 of the Action Plan of this CEDS would increase the intermediary metrics on average by 15% per year for three years running. This is hardly a perfect method of setting targets but at least it is comprehensible and the degree of success in meeting them can be gauged in the near-term from the data already prepared to file reports with the Comptroller and ABO.

Second, it is essential to note that none of these intermediary measures are particularly suited to capture one of the key outcomes of the developers' activities, i.e., maintaining businesses. It is impossible to measure directly how many businesses DO NOT go out of business or reduce the scale of their operations -- but would have done so had it not been for assistance from the surrounding development community.

Third, and finally, it must be reaffirmed that measuring intermediary impacts ONLY captures those impacts that can be quantified from the data that the IDA and its associated corporations collect to report on projects as these are defined by the Comptroller/ABO's reports. These impacts, while real and important, ignore other impacts not directly stemming from IDA-associated projects or from activities by many of the other development organizations operating in the County. It can therefore be safely assumed that the intermediary impacts projected are exceedingly conservative. In the final analysis, they are indicator impacts, i.e., if they meet or exceed the benchmarks indicated, then the much larger list of development initiatives falling under the 15 activities outlined in the CEDS can be assumed to be working equally well.

E. ECONOMIC RESILIENCE

Introduction

The County's economic prosperity depends upon its ability to prevent, withstand, and quickly recover from major disruptions (i.e., "shocks") to its economy. Economic resilience includes the ability to prevent or minimize such shocks, to endure them, and to recover quickly from them. The EDA Guidebook suggests that there are in essence three categories of shocks that a community, whether big or small, should address when attempting to analyze its susceptibility to out-of-the-ordinary natural and economic events and how to ameliorate the impacts of such events. They are:

- Specific external shocks (a natural or man-made disaster, closure of a military base, exit of a major employer, the impacts of climate change, etc.).
- Downturns or other significant events in the national or international economy which impact demand for locally produced goods and consumer spending; and/or
- Downturns in particular industries that constitute a critical component of the region's economic activity.

However, before addressing these three general categories of shocks something must be said about the general situation of the County. To put it most simply, the County appears to be situated both geographically and economically so as to make it less exposed to such shocks than many other communities. As will be seen below, the County's exposure to dangerous climatic and geologic hazards is almost minimal.

By the same token, although few economists or planners would admit in public that any economy can be called "simple", as economies go, the economy of St. Lawrence County certainly does not have as many inter-acting moving parts as is the case in some of the communities whose resilience plans are cited by the EDA Guidebook as models – e.g., the North Central Florida Regional Planning Council, the Eastern Plains Economic Development Corporation, and even a less geographically diverse region such at the one covered by Southeastern Vermont Economic Development Strategies. Without making too much of this alleged simplicity, it will be enough to say that the County's population and community decentralization and its enforced rural self-reliance makes it almost inherently able to absorb many shocks that would create serious disruptions in more complicated economies.

Other External Shocks: Natural Disasters

Mention natural disasters to longer-term residents of St. Lawrence County and the almost universal candidate for the County's greatest risk is winter-weather related. Of course, it is cold and snowy in St. Lawrence County for extended periods of time every year. Therefore, "simple" cold and snow are part of daily life in the County for up to six months of every year, not a cause for emergency action except in very localized instances. In short the bitter winters do not equate to shocks to the system. Even the blizzard of 1978 did not noticeably affect the County's economy. Because the County and its residents expect serious cold and snow every year, homes, businesses, and governmental facilities have no choice but to be prepared as a matter of course for just about anything that old man winter can throw at them.

The weather event that is of most concern to County residents occurs not when the winter temperatures are below zero, or even when blizzard conditions prevail, but rather when ambient temperatures are near freezing and combined with rain, sleet, and freezing rain, not snow. To put it in two words: "ice storms" are what can create true shocks for St. Lawrence County.

The most recent example of the natural disaster that virtually closed down some parts of the County for over two weeks was the ice storm of 1998. The fact that the storm impacted parts of neighboring Ontario and Quebec more severely than St. Lawrence County, did not provide much solace to the thousands of County residents who were unable to travel (because of icy roads and states of emergency) and whose electric power was cut because of downed power feeder and distribution lines.

The County's Office of Emergency Services, whose pedigree dates to the 1970s, certainly had the 1998 ice storm in mind when it prepared its Comprehensive Emergency Management Plan in 2014 (https://www.stlawco.org/Departments/EmergencyServices/). The County has since updated the Plan several times, most recently in March, 2016. The Plan recognizes that the 1998 storm was not the first, nor will it be the last, such storm and the Plan lays out a systematic approach to dealing with such events.

Of course, the Plan's primary concern is with the dangers to life and limb that such weather events create, not the economic dislocations that are also created. Though no one quantified the economic losses attributable to the 1998 storm for the County on a stand-alone basis, they were certainly substantial because large numbers of retail, commercial, and manufacturing businesses had to close down for days, and in some cases stay closed for several weeks. These businesses lost revenue and their employees lost pay.

The 1998 storm was economically notable not because it glazed the roads with ice for several days but because it brought down power lines – everything from drops into houses and business premises to distribution lines to major transmission lines. It was the disruption of electrical energy supplies that created the dislocation, not the ice itself.

However, in the end, the 1998 ice storm had no discernable impact on the County's 1998 economic statistics. Among the reasons for this are:

- Micro-climate variations in the storm's effects meant that it buffeted some regions of the County less than others and consequently the impact and recovery from it were not as economically stressful because nearby residences, farms, and businesses who were less affected were able to help their neighbors cope with lack of power in their hours of need;

- Almost all of the County's major public institutions (hospitals, the colleges, etc.) and many of its larger private employers had back-up power supplies in-place (generators) and were able to continue to function, even if at reduced levels of efficiency; the County probably had (and still has) more facilities with such back-up capacity than might be expected because smaller ice storms and wet, heavy snow storm events are common in the County and such preparations are a cost of doing business;
- Public safety and utility personnel – e.g., the County's Office of Emergency Preparedness and National Grid and Massena Electric Department, the County's two primary electrical power providers – were (and continue to be) well trained in how to deal with such emergencies – again largely because smaller ice storm and wet snow events are "normal" and their preparations for what is normal, including National Grid and Massena Electric's mutual-help collaborations with other East coast utilities, made it possible for them to respond quickly and efficiently to the emergency; and
- The County is a net producer and exporter of electricity, primarily from the New York Power Authority's Moses-Saunders hydroelectric facility in Massena, but also from the many small-river hydro dams scattered throughout the County on the streams that feed into the St. Lawrence River; hence, even where major distribution lines were "down", the decentralized power production grid ensured that power continued to flow in many parts of the County; to put it another way, because the County does not "import" its power from afar, its energy supply did not depend (and still does not depend) on a major external transmission line and its many local power generation facilities makes its power supply multiply redundant.

The County's experience during the August, 2003 northeast power blackout reinforces what was just said about the County's relative ability to "survive" power crises. Over 50 million people in Ontario and eight northeast states were affected by the blackout, many for several days. Some parts of St. Lawrence County did not lose power at all during the blackout and almost every part of the County was back to full power within a few hours. This was largely due to the ability of the local transmission lines to deliver locally generated power to local customers.

Returning to winter weather events, and aside from the power loss threats that they engender, the County's winters do create another class of hazards. Really frigid temperatures create ice dams on the smaller rivers and other streams that comprise the County's portion of the St Lawrence River watershed. Many of the counties villages and hamlets are located on these streams and there are occasionally instances of localized flooding created by such ice "events". Because of the decentralization of the County's communities, such events do not present systematic shocks to the system. And, the St. Lawrence itself is so broad and its currents so swift that ice dams that create floods across the whole river have not occurred in living memory.

Other than winter weather-related events, two other possible sources of natural disasters must be mentioned, i.e., seismic events and wild fires. As for the first, in historic times the 1944 Cornwall–Massena earthquake was the largest such event on record across the whole State of New York, registering 5.8 on the moment magnitude scale. Geologists report that the part of the County in the Saint Lawrence River Valley is underlain by a seismically active zone known as the Saint Lawrence rift system. In the end the 1944 event created very little significant damage and the County's emergency management team is well aware of and prepared for similar events in the future.

The second major natural threat that the County must be – and IS – aware of are wild fires. Such fires were a major threat to the local populations in times past, especially the 1860-1940 period when the County's forests were being harvested for both lumber and the fiber for paper mills. The unregulated slash from such operations together with drought conditions created major fire events. The incidence of such major events has declined to nil, largely because of improved harvesting regulations and practices, together with decreased demand for the County's forest resources.

It is worth observing that the upside effects of several of the County's continuing economic threats discussed above in the SWOT analysis – i.e., population decentralization and the decline in the paper industry – actually have had the effect of making the County less susceptible to natural disasters.

The same may be at least partly true as well for another category of potential disasters. Whether wars are natural or man-made disasters, the County relative remoteness from metro-America affords less protection than might be assumed by just looking at a map. A major US army base – Fort Drum – borders the County's southern line and the Moses-Saunders Power Dam and the St. Lawrence Seaway locks are on the County's northern border. Both could be major targets in the event of war – as could be the capitol of Canada in Ottawa. It is impossible to calculate the impacts of the use of either tactical or strategic nuclear weapons on any of the three targets mentioned but one thing is sure: no matter how much wide open space there is in St. Lawrence County, both its people and their livelihoods will be dramatically affected.

Mention of nuclear weapons also raises the issue of a nuclear power plant failure. Oswego, New York – about 80 miles southwest of the County's border – is home to three nuclear power units. Four more units are located at Clarington, somewhat further west on the Canadian (northern) shore of Lake Ontario. The reliability and safety of nuclear power production seldom garner accolades. Such a good record is faint consolation to the people who lived near Five Mile Island or Chernobyl or Okuma. Even though the seven reactors near Oswego and Clarington are probably far enough distant from St. Lawrence County to shield it from the most immediate effects of a nuclear disaster, the prevailing winds – colloquially called the St. Lawrence storm track – almost ensure that any gaseous radiation emissions will in short order cover the County.

Other External Shocks: Man-made Disasters

The NYPA Study pointed out that one of the weaknesses of the County's economy is its dependence on governmental jobs. As described in the SWOT analysis, substantial employment in the County is also rooted in the health care and education sectors. In fact, according to recent NYS Department of Labor data (July, 2017), fully 56% of the County's non-agricultural workforce – including at least eight of the County's top ten employers – are in government, health, and education. Neither government nor health care are trade-able sectors, to use McKinsey's terminology, nor does a substantial portion of the education sector bring in revenues from outside the County.

This needs to be mentioned because the countervailing advantage of these sectors is that the danger of County government, a large hospital, or one of the colleges going out of business "overnight", so to speak, is less than might be the case for large private employers who are more subject to short-term swings in the world economy and whose continued operation in the County is dictated by decisions made elsewhere in the companies' corporate hierarchies. Well-attested anecdotes suggest that many of the branches of local manufacturing plants that have gone out of business over the last 30-40 years have been closed, not because they were unprofitable, but because they were not profitable enough to suit their corporate parents or because of larger corporate shocks that did not originate in St. Lawrence County.

Thus, the County's deindustrialization – a major economic blow to the County over the last 30-40 years – has had the counter-effect of minimizing the County's reliance on a handful (three) of its major industrial employers. Alcoa, Arconic, and Corning are the three remaining global companies who have operations in the County. Among them they employ about 1,000 people. True, this is over 40% of the County manufacturing employment (July, 2017) and the three plants provide among the best compensated jobs in the area. Hence, the County's IDA plans to create a new Critical Employer Panel (see action 1.h above) that it will task with assessing the options available to the County should any of these corporations start thinking about closing or curtailing operations at their St. Lawrence County facilities.

Such proactive planning is particularly important in the case of Alcoa (and to a lesser extent, Arconic). Alcoa's Massena operation is one of the four remaining aluminum reduction plants operating in the US. There is a global glut in aluminum. The question is how long will it take for such a glut to force Alcoa to shut or further curtail operations in Massena. It is potentially positive for the County that Alcoa divided its Massena operations between itself and Arconic. Arconic is still in the aluminum business, and therefore is not free and clear of the global glut, but at least it is adding value to the raw aluminum and that might insulate its Massena operation somewhat from the raw products where there is almost nothing to distinguish one plant's production from that of another.

It should be noted that the County already has had significant recent experience in dealing with contractions in employment at Alcoa. In 2014-15 Alcoa shut down its Alcoa East plant which had employed almost 400 people. Aside from the short-term responses mounted by the County to ameliorate the impacts of this Eastern plant's closure – e.g., the IDA's effort to help local Alcoa suppliers diversify into additional markets for their products and services – the prospect of further reductions in employment at Alcoa (and other larger private employers) is one of the threats motivating the County to build the CEDS around a series of actions that will lead to further diversification of the County's economy.

National and International Economic Events

It is best to admit at the outset that a small, rural, impoverished jurisdiction like St. Lawrence County has essentially zero options available to it to affect the course of global or national, or even State, macro-economic events. The best the County can do is to be prepared to react quickly and intelligently to what happens in the larger world outside its borders.

The previous sections highlighted how in some cases the County's decentralization and economic decline has actually served to partially insulate the County from natural and man-made economic shocks. The County's economy has lost much of its old extractive and large manufacturing industry base. The decline and/or closure of the aluminum, lead, talc, and zinc extractive and refining operations, many paper mills and sawmills, and much of the value-added milk processing industry has lessened, although not eliminated, the County's relative exposure to national and international commodity price fluctuations – at the expense, of course, of drastically reducing the number of the traditional higher paying jobs. But, making the best out of a bad situation, the decline of traditional large manufacturing has indeed lessened the County's exposure to the troughs of global commodity fluctuations, whether created by secular trends or by dislocations attributable to natural or man-made calamities (e.g, floods or wars).

With this said, this is probably the right place to mention that, while the action plan proposed by this CEDS includes several initiatives that will further insulate the County's economy from national and international shocks, -- for example by further diversifying the County's economy -- it also proposes to take actions that will increase the County's exposure to such events. In particular, the plan proposes to revive manufacturing (through the global search), seek out Canadian business branch locations, and revive the utilization of the County's natural resources for the fabrication of value-added products. Inevitably success in such efforts will indeed increase the County's exposure to international and national shocks. In essence, increasing such exposure is the price that has to be paid to increase the relative profile of trade-able sectors in the County's economy.

Nonetheless, the County has "built into" the CEDS's action program at least two approaches that to a significant extent will minimize the effects of this increased exposure. First, the CEDS focuses on value-added industries, not just commodity production, as was so often the case in the past. Certainly, finished products can be just as much victims of international economic trends, but not nearly to the extent that is true for raw or semi-refined commodities.

Second, the CEDS's incremental development strategy – the strategy of hitting singles and doubles, and not swinging for the fences at every at-bat – implicitly assumes that the chances are remote of attracting a large international company to the County. Hence, the success of CEDS will populate the County with a myriad of mid-sized manufacturing operations, none of which will dominate the local economy to the extent that was true in the past.

With this said, there is at least one international shock that the County must actively expect to affect its economy in both the short and long terms, i.e., international currency fluctuations and especially the ratio between the US and Canadian dollars. There is essentially nothing that the County can do to affect this ratio; it will be what it will be.

Still, it bears mentioning that the substantial cross-border commerce in the retail, service, and tourism sectors is very important on both banks of the St. Lawrence River. Of course, it's not as if this is a new consideration. Both countries' border communities' economic interdependence goes back to the early 19th century. And, the communities on both sides have been "living with" the instabilities created by their border statuses for two centuries. That won't change.

What may create changes in the cross-border trade relationships is the threat of a "trade war" between the US and Canada. Daily cross-border trade's convenience was dealt a blow in the wake of 9-11 but a revival of high barriers to trade is another issue altogether. To paraphrase Abraham Lincoln, you can never please all the people all the time, and certainly the trade regime introduced between the US and Canada NAFTA never did please everyone in St. Lawrence County. Nonetheless, NAFTA certainly affected the substance, not just the convenience, of cross-border trade on the St. Lawrence frontier and County businesses that were affected negatively by it have adjusted to it.

With that said, NAFTA never satisfactorily resolved the varying trade concerns in at least two major commercial sectors of interest to St. Lawrence County residents and businesses, i.e., dairy products and forest products. To put it most simply, County dairy producers want to be able to export milk and milk products to Canada more than they can now and wood producers don't care much about access to the Canadian market, provided that Canadian lumber producers don't get free (or almost free) access to harvesting on crown lands and therefore make it impossible for County harvesters to compete.

However, US lack of access into the Canadian dairy industry and generous Canadian timber harvesting policies is nothing new. Local producers have been living with these realities for years, including before NAFTA. What is most concerning is that an overall trade war will create other barriers that no local business can foresee.

Ironically, trade war rhetoric has recently prompted some activity that fits right in with one of the key elements in the CESD's action plan, i.e., to attract branches of Canadian businesses to the County. The US has long been the largest market for the products and services of Canadian business. Some of these businesses have voiced concern that the Trump administration will erect trade barriers that will make such exports to the US more difficult. Consequently they have renewed efforts to explore the advantages of locating branch plants in the County. The County's CEDS is positioned to capitalize on this perception, even if in the longer run a trade war (or even threats of one) may be counter-productive. Even though the County can't make trade policy, it must be alert to any opportunities that changing policies present to it.

To conclude a section dealing with international trade without mentioning the energy sector – and particularly the hydrocarbon portion of it – is to live in another world. Of course, energy is more than gas and oil. Mention has already been made of the County's hydro capacity and its bio mass resources. In spite of this, the County is still peculiarly sensitive to fossil fuels for transportation. This CEDS has drawn attention again and again to the challenges – and sometimes the advantages -- presented by the County's large size and decentralized population. These factors, when coupled with the absence of any rail passenger capacity and little public transportation, make the incomes of County residents and businesses very sensitive to increases in the cost of gasoline. By the same token, the cold winters make upward fluctuations in the prices of natural gas and heating oil a key item in family and business budgets.

Such concerns are not super-critical right now, with a global glut of petroleum and natural gas – and with predictions for such gluts to continue into the foreseeable future. But, the prudent planner recalls that it was not too many years ago that gas and heating fuels prices had double and tripled. Those days could come again. Recognition of this is one of the reasons why the CEDS includes an action item to create an inventory of local renewable energy resources (4.c above).

Downturns in Particular Industries

The County's primary employers are:

- Dairy farms and their service and supply providers, together with milk processing manufacturers;
- A diverse array of mostly small manufacturers, scattered across a variety of industrial sectors;
- A host of small hospitality and tourism establishments, many of which derive much of their business from serving the colleges and universities in the Canton-Potsdam communities;
- The five colleges and universities and the businesses that service them and their students;
- The five hospitals and other health care facilities; and
- Governmental agencies – from the County, Town, etc governments to the public school systems to the State agencies located in the County (e.g., prisons, NYPA, the Ogdensburg Psychiatric Center, etc) to federal agencies (e.g., the Seaway Development Corporation, Homeland Security, etc)

One can imagine all sorts of disasters that could occur that would seriously disturb every one of these sectors – from global milk products trade wars to federal health care policies that put the local health care facilities out of business to government bankruptcies. In the end the sector that is of most concern to the County is the future of the higher education business. The wildly increasing costs of higher education; the huge increases in student debt; and the recent national and local decline in the rate of growth in student registrations – all of these give pause to those who realize that the County's major expansionist economic driver for at least the last three decades has been the health of its higher education sector.

As with the climate and trade policy, there is little that the County can do to prevent a national downturn in the perceived value of higher education. But, as with so many other things, the composition of the CEDS was partly directed by concerns about the future of this key driver to the County's economy. One thing the CEDS prescribes is for developers to help the colleges become more efficient by helping them to link with local service and supply businesses.

Finally, though it is unlikely that any of the colleges is a "flight risk" in the same way as is a global corporation, the preparation of this CEDS has focused the County on the importance of its five colleges and helped it to realize that its developers must take the lead in preparing a contingency plan for and with its higher education sector. Hence, the IDA will work closely with the Associated Colleges – in much the same way as it will convene the Critical Employer Panel (described above in this section) – to determine how the colleges' perceptions of their future trajectories can benefit from this and future versions of the County's CEDS (see 1.i above).