A NEW VISION
for
LONG ISLAND'S ECONOMY

The Strategic Economic Development Plan
for
Nassau and Suffolk Counties

BEST PLAN AWARD

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LONG ISLAND REGIONAL ECONOMIC DEVELOPMENT COUNCIL

November, 14, 2011

Mr. Kenneth Adams
President & CEO
New York State Empire State Development Corporation
633 3rd Avenue, 37th Floor
New York, New York 10017

Dear Mr. Adams:

We are very pleased to submit to New York State an exciting strategic economic development plan for the Long Island region: "Long Island's Future Economy – A New Beginning for Nassau and Suffolk Counties." Prepared by the Long Island Regional Economic Development Council, the plan capitalizes on our region's strengths and assets; invests in our people, institutions and employers; and encourages private financing as leverage to persuade the State to invest in our region, as thousands of jobs will be created and the return on New York's investment will be high.

We want to thank Lieutenant Governor Robert J. Duffy for his commitment to our state and dedication to this new process and Irene Baker and ESDC Staff for guiding us through this complex and all-consuming effort. We also commend the Regional Council as well as the more than one hundred people who served on our Work Groups. All helped us reach regional consensus on the plan and priority projects.

We especially applaud Governor Andrew M. Cuomo for creating the Council system and for empowering the Regional Council to develop plans for Long Island's future economy. We now believe our region is truly "Open for Business."

Respectfully Submitted,

Kevin S. Law
President & CEO
Long Island Association

Stuart Rabinowitz
President
Hofstra University

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- VISION STATEMENT -

For Long Island's economy, innovation has been our past and will be our future. This is a region whose agriculture and fishery harvests have fed the nation, whose natural assets have inspired poets and tourists alike, whose businesses produced the aircraft that helped win a world war and first put men on the moon and whose institutions cracked the genetic code. Long Island will reassert itself as a global center for innovation and the model for a knowledge-based suburban economy that creates new high-paying jobs and improves the quality of life for every one of our residents.

The Long Island Regional Council's vision for long-term economic growth is characterized by increased collaboration among academia, the private and public sectors and labor to protect and grow our advanced manufacturing base while encouraging innovation in the life sciences, information technology, clean energy, defense and homeland security industry clusters.

To accomplish this, we will build on the successes of our existing businesses, commercialize the valuable research conducted at our world-class research institutions, and strengthen our highly skilled and educated workforce. At the same time, we will be vigilant in promoting and protecting our unrivaled natural resources and in providing equal opportunity in housing, employment and education. Furthermore, we will continue to invest in our students, transportation, housing and sewer infrastructure, as well as our tourism and harvest-based agriculture and fishery industries. Our goal is to support a sustainable, innovative and inter-connected job-generating economy that also redevelops areas suffering from disinvestment and mobilizes the entire region for years to come.

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- EXECUTIVE SUMMARY -

Rising to the catalytic challenge of Governor Andrew M. Cuomo to create a community-wide consensus on job creation, the Long Island Regional Economic Development Council (LIREDC) has empowered a diverse team of leaders to craft a five-year plan featuring transformative strategies that will encourage innovative, collaborative initiatives for growth. The LIREDC has built on the outreach and some of the recommendations of the Long Island Regional Planning Council's LI2035 Regional Comprehensive Sustainability Plan, enabling us to more quickly produce a complete, holistic framework for change that is not only broadly-supported, but fact-driven and focused on achievable - and measureable - results. We are determined to deliver a strong return on New York State's investments in the Long Island region.

Collectively, the LIREDC's strategies seek to leverage Long Island's considerable competitive advantages - its critical mass of a superbly-educated workforce, attractive natural assets, successful high-tech businesses and world-class research centers stocked with Nobel Laureates - to create appealing new employment and entrepreneurial opportunities. A high priority is selling more high-tech goods and services outside the region and especially overseas – such as China, our largest potential export market - to bring new wealth and jobs to the region and state. Another priority is to ensure that our small businesses, which make up the bulk of the region's economic activity, have access to the financing and other resources they need to thrive. At the same time, to be truly successful, our strategies urge that Long Island overcome long-standing, inter-related obstacles to growth that hurt employees and employers alike. Our strategies also recognize that the economic ecosystem can only thrive if all its parts and people are sound and in sync. Our goal is to encourage a culture of cooperation - even amid intense competition - among businesses, labor, government and community organizations.

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The LIREDC plan points out that Long Island has a long history of innovation and resiliency – a history that contains the seeds of its current problems and its future promise. We do not shy away from a stark appraisal of our economic predicament. Long Island once stood as a national model of rising middle-class opportunity, but **"America's First Suburb"** – really a complex collection of suburbs from the starkly urban to the serenely rural – is troubled by tough new challenges that drove the Council to reject simplistic, one-size-fits-all solutions. These challenges include a loss of young workers, slow population growth, inadequate transportation, housing and waste disposal infrastructure, governmental fragmentation, growing poverty, continued racial segregation, and a decline in high-paying manufacturing jobs that once were the engine of our economy. Promising young high-tech sectors have not yet come close to generating the jobs and income from outside Long Island that the defense industry once did.

But not for long: The LIREDC also documents the Island's immense potential to incubate and "accelerate" the rise of major new industries. Our plan envisions long-term growth characterized by close, ongoing collaboration among academia, the private sector, labor, and government to protect and grow our advanced manufacturing base while encouraging innovation in life sciences, defense, homeland security, information technology and clean energy. The plan sees exciting synergies among the private sector and Brookhaven National Laboratory, Cold Spring Harbor Laboratory, Stony Brook University, the Feinstein Institute at North Shore-LIJ Health Systems and Hofstra University. We have the bandwidth to move tremendous amounts of data for everything from advanced research to home entertainment. Overall, we encourage public-private partnerships that both grow the economy and advance an inclusive agenda on housing, transportation, education, energy, tourism, agriculture and the environment. We also support "recruitment, retention and retrieval" efforts to reverse the frustrating flow of businesses driven out of the region, often by the high cost of housing, energy and property taxes.

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No, we are hardly the 1950s stereotype of a uniformly prosperous suburb. "Long Island is in a prolonged downturn that is sapping personal income, jobs, growth and consumer confidence," declared a recent story in *Newsday,* the region's largest newspaper. "The number of homeowners 90 days or more behind on mortgage payments has increased by one-third in the past two years to 10 percent. That compares with 7.5 percent for New York State… Welfare rolls in Nassau and Suffolk counties have swelled 40 percent since 2009, state figures show, even as they rose less than 1 percent in New York City. And while New York State has added tens of thousands of jobs in the last 12 months, Long Island has lost nearly 13,000 during the same period.

Nonetheless, LIREDC looks to the future with hope. And Long Island's response to the call for "transformative projects" – the true catalysts of change - was especially heartening. We believe that the stack of strong proposals submitted by our businesses, institutions and others represents a hunger for change. We also see the response as just the beginning - that each year the proposals will grow in number and quality as the public becomes more familiar with Gov. Cuomo's new process for regional economic planning. We believe the process itself – the collaborative research, evaluation, debate and decision-making - has been transformational for a region where consensus for action has been frustrated by jurisdictional disputes and partisan divides.

"The projects *are* the implementation plan for your strategies," Irene Baker, director of regional economic developments councils for Gov. Cuomo, declared at an LIREDC meeting on Long Island. And so they are: The LI Regional Council received 44 submissions for transformative capital projects on Long Island, representing a wide range of industries and institutions, many of them collaborating as the LIREDC and Gov. Cuomo had hoped. The total budgets of the 44 projects came to nearly $23 billion, with some 65,000 jobs created or retained. Empire State Development Corp. also has logged more than 240 smaller projects submitted through the Consolidated Funding Application process.

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- OUR TRANSFORMATIVE PRIORITY PROJECTS -

What follows are brief summaries of the 13 priority capital proposals – our "game-changers" - that should be funded immediately. These projects promise the highest return on investment, scored highly on criteria developed by the LIREDC (Appendices E and F), addressed multiple regional objectives, and best supported the implementation of our job creation strategies. The region's total number of priority projects increases to 25 with an additional 12 to be funded with New York State Excelsior Jobs Program tax credits. The state's total investment in the 25 projects would be about $66 million, leveraging nearly $7 billion in private and other non-state investment – an extraordinary 100-1 ratio.

INVESTMENTS IN AN INNOVATION ECONOMY

- **Smart Grid 3***:* A Stony Brook University-Brookhaven National Laboratory collaboration to establish Long Island as a national center for energy research, development and manufacturing, bringing added regional benefits of lower power costs, improved research capacity and training for high-tech students.

- **Accelerate Long Island***:* Region-wide initiative uniting several major research institutions and other organizations to commercialize discovery and innovation by matching scientists with entrepreneurs and early stage venture capitalists to bring promising products – manufactured here – to market.

- **Thought Box 1 - Hicksville:** A regionally replicable model that implements the Accelerate Long Island objectives in a downtown transit hub, with affordable housing, offices, labs, recreation and commercialization services for fledgling high-tech ventures - all under one roof.

- **Pharmaceutical Manufacturing:** A major expansion of one of Long Island's largest pharma firms, Amneal Pharmaceuticals, which has 85 drugs approved or in the federal pipeline and requires a larger facility to retain and create emerging industry jobs and partnerships with research institutions.

- **CSHL Advanced Drug Testing:** A new Cold Spring Harbor Lab facility that will establish the region as a bio-medical research center by raising the testing of cancer drug therapies to a higher level that would transforming the way treatments are developed and administered.

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INVESTMENTS IN REBUILDING LONG ISLAND COMMUNITIES "SMARTLY"

- **Wyandanch Rising:** Continued infrastructure support for a complete redevelopment of Suffolk County's poorest minority community, central to a Babylon Town Smart Growth plan to add jobs, housing, businesses and street beautification, centered on its downtown rail line.

- **Hempstead Village Renaissance:** A massive mixed-use project involving 3,400 new housing units and 700,000 square feet of commercial, entertainment and retail space around the county's busiest multimodal transit center that would generate thousands of jobs in one of Long Island's largest and most distressed communities.

- **Ronkonkoma-MacArthur Transit Hub:** A rare collaboration between two large towns, Brookhaven and Islip, and Suffolk County to provide a necessary sewage treatment plant that will allow construction of a Smart Growth transit oriented village in a distressed community - and which will strengthen ties between Suffolk's largest rail station and a regional airport in a commercially critical area.

- **Heartland Town Square:** A proposal to transform the remains of one of the world's largest psychiatric hospitals into a self-contained suburban city in Brentwood, near two highways and a rail station, leveraging $3 billion in private investment and generating massive numbers of construction and permanent jobs.

INVESTMENTS IN OUR NATURAL ASSETS

- **EPCAL Agri-Park, Calverton:** The Long Island Farm Bureau, Cornell Cooperative Extension and other East End partners will study the feasibility of a state-of-the-art cold storage and distribution operation in the heart of our food production region, accessible to rail, that would boost profits for farmers, reduce costs for consumers and create a new industry for locally grown food.

- **Bay Scallops Restoration:** With only 7 percent of expensive scallops being harvested, a large-scale seeding program will transform the East End industry dramatically, increasing production for the region and New York City's gourmet markets, and stimulating both business and job creation.

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INVESTMENTS IN OUR WORKFORCE

- **EngINE:** A public-private partnership between Hofstra and Stony Brook Universities to boost the number of engineering graduates whose skills are essential to meeting our ambitions to be a globally-competitive center of high-tech research and manufacturing.

- **Workforce Innovative Network (WIN):** A visionary network of local agencies, higher education and research institutions, businesses and other not-for-profits that would dramatically improve how Long Island identifies and educates potential high-skilled workers – including high school students - for careers in science, technology, engineering and math (STEM) industries in an increasingly diverse region.

- PROJECTS OF REGIONAL SIGNIFICANCE -

Since the Strategic Plan is a long-term template for sustainable growth, the LIREDC believes it is important to highlight other significant projects that could create jobs immediately and advance the regional vision and strategies in the future. They include:

- Development of a Long Island Sound tunnel crossing
- Redevelopment of the Elmont-Belmont Racetrack community
- Redevelopment of the shuttered nuclear power plant site at Shoreham into a renewable energy manufacturing site
- Redevelopment of the EPCAL property in Calverton, including but not limited to a freight village
- Redevelopment of downtown and waterfront properties in Glen Cove
- Redevelopment of the brownfield site at the former Cerro Wire facility in Syosset with an upscale mall
- Construction of a second LIRR track from Farmingdale to Ronkonkoma

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- IMPORTANT FOR LONG ISLAND'S FUTURE -

Redevelopment of the Nassau Hub: Potentially Long Island's most transformative of places, the 77 acres anchored by Nassau Coliseum should feature an exciting Smart Growth, TOD mix of business, education, sports, entertainment and affordable and market housing that could be a regional and national model for suburban development. Mostly a sea of asphalt serving a badly aging Coliseum, the site requires both a large parking garage and added bus service connected to nearby LIRR stations, to free up land for more productive purposes, including a state-of-the-art indoor sports arena, an exhibition center, a minor league baseball field and research facilities connected to Hofstra's new medical and engineering schools. The 77 acres is part of a broader swath, including one of the nation's largest malls and the county's most expensive commercialreal estate. So we urge Nassau County, which owns the 77-acres, and Hempstead Town, which controls what can be built on it, to prioritize an imaginative plan for development that can catalyze the transformation of this site into an engine of growth for the entire region.

The LIREDC sees Gov. Cuomo's new economic development process as a partnership between the state and our region. And while Long Island is asking the state for funding to help realize its goals, we also could benefit from non-monetary assistance – in the form of regulatory and other reforms (See Appendix A). One example would be a reformed SEQRA process that supports business activities but has no impact on the environment.

While focusing on strategies for commercializing new technologies, the LIREDC does not ignore the region's traditional economic powerhouses such as the retail and service sectors. We applaud the contribution of arts organizations, such as the Long Island Philharmonic, to the economy and quality of life. Our plan also recognizes the crucial roles of tourism, fishing and agriculture. In fact, the report emphasizes the potential of – and suggests strategies and initiatives to encourage - ecotourism and sustainable harvest-based agriculture and fisheries to attract new environmentally conscious visitors. Long Island's natural assets already are substantial income generators – bringing in revenues for businesses, government and individuals - so protecting its beaches, farmland and freshwater is crucial to the region's economic health. So is providing the "head start" of early childhood education, especially safe, reliable and affordable daycare.

In calling for a balance between economic and environmental concerns, the LIREDC plan recognizes the connectivity between sectors and communities and thus takes a holistic approach toward prioritizing local projects: Tourists won't come to Long Island if the bays are polluted and ocean and farm vistas fall

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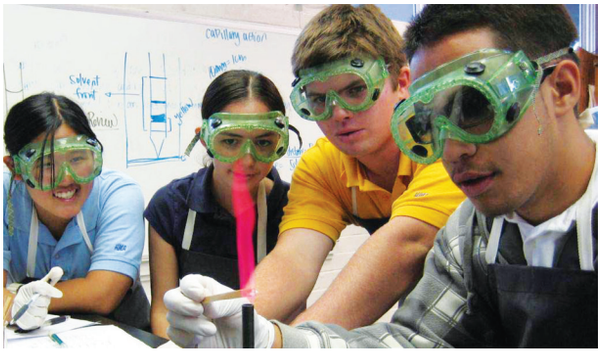
to overdevelopment. They won't come if traffic is at a standstill – the same congestion that stifles business deliveries, adds to commuting time and pollutes the air. Sewers are needed not only to protect fresh and salt water but to allow the construction of affordable apartment units. The apartments will help keep young workers on Long Island and generate additional property tax dollars that will, in turn, protect school programs and other important quality of life services or reduce the tax burden on individual home or business owners. Although the heart of the report is an analysis of four key areas of concern – innovation, infrastructure, natural assets, and workforce and education – the LIREDC emphasizes that they are dynamically connected and require Long Islanders to work together, across partisan, geographic, institutional and competitive boundaries.

The need to foster a collaborative spirit, as well as a consensus for change, added extra impetus to the LIREDC's efforts to meet Gov. Cuomo's insistence on an inclusive, transparent process with the widest possible public participation. Assisted by state staff, and inspired by the dedication shown by Lt. Gov. Robert Duffy, who attended every public LIREDC meeting, the Council reached out to Long Islanders in numerous ways, including social media sites and presentations before business and civic groups. From the many hours devoted by members of the Council and its working groups, to the hundreds of people who spoke or submitted ideas, the LIREDC endeavored to ensure that every sector or community had a chance to be heard. The result is a plan that bubbled up instead of being forced from the top down.



To guarantee that state and other public or private funds are not wasted – that the most and best jobs are produced, as promised by those who receive these funds – the LIREDC created an implementation plan for the regional strategies and specific projects. We also developed performance measures to gauge the region's or institution's success in implementing them. The plan is not static. The Council expects to regularly evaluate and update it so that progress is made toward reaching the region's goals and a better case can be made to justify additional funding.

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This document fully meets the State's request for a Five-Year Strategic Plan that includes data and ideas in six specific sections, as per the Strategic Planning Manual. But the LIREDC has taken to heart the flexibility granted by the state to allow the addition of sections and sensibilities that capture "the substance and spirit of the region's economic development efforts." Thus, the LIREDC offers some sensible, realistic strategies – such as the creation of a major "green" technology manufacturing sector – that may take far more than five years to realize their full, job-creating potential. As such, the Council does not discourage businesses, not-for-profits and local governments from proposing projects aimed at making slow but steady progress. In fact, we endorse many with long-range trajectories.

Although not explicitly required to do so, the LIREDC also emphasizes the economic imperative of addressing social issues, such as providing opportunities for minority and women owned businesses, building affordable, appealing housing for young workers whose numbers are dwindling in the region, and improving the lagging skills of many immigrant and other minority students who are projected to comprise a larger and larger share of the workforce. Strategies to deal with foreclosures, for instance, not only protect families from ruin and neighborhoods from blight, but lift a significant drag on the economy. Initiatives to retrain elderly workers in new skills not only helps individuals maintain their income levels, but expands our workforce with experienced employees. As the plan's Vision Statement declares, "Long Island will reassert itself as a global center for innovation and the model for a knowledge-based suburban economy that creates new high-paying jobs and improves the quality of life for every one of our residents."

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- KEY STRATEGIES FOR ECONOMIC GROWTH -

Create a cohesive education and workforce training strategy through partnerships among a range of stakeholders – business, trade groups, labor, government agencies, educational institutions, parents and students – with the goal of ensuring that workers from all of Long Island's communities are prepared to take advantage of new job opportunities in key economic growth sectors.

Develop innovation and industry clusters in transformative locations across the region — including downtowns, brownfields and university, research and medical centers — by integrating the smart-growth principles of transit-oriented development and vibrant community life.

Enhance and develop multi-faceted, interdisciplinary facilities aimed at incubating and accelerating the commercialization of innovative products generated at the region's premier research institutions, by linking scientists, engineers, and health and medical professionals to entrepreneurs and small businesses.

Reinvigorate Long Island's manufacturing sector through continued transformation from traditional defense and aerospace work to advanced technology products, creating skilled, high-value jobs and a network of nimble companies that can develop synergistic partnerships with companies in other regions of the state.

Produce a new generation of sustainable, well-paying jobs in the legacy sectors of agriculture, aquaculture, fisheries and tourism by expanding export opportunities, infrastructure, recreation facilities, research partnerships and workforce training.

Rebuild and expand infrastructure to improve job access, revitalize downtowns and transit hubs, speed trade, and attract and retain dynamic regional businesses and highly-skilled workers.

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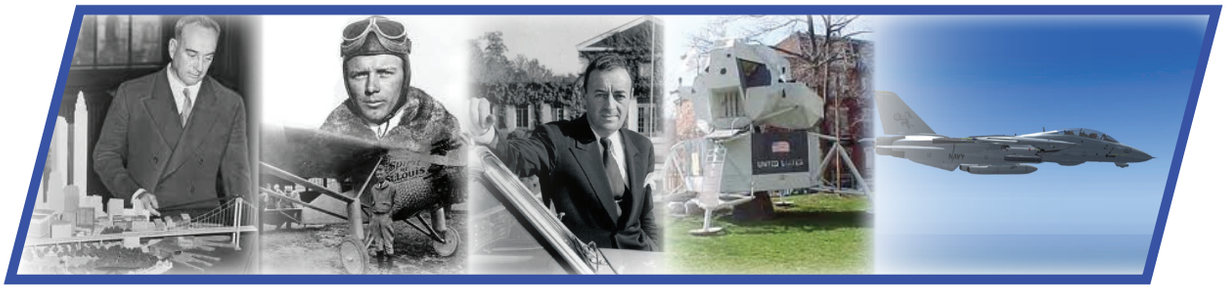
WHERE WE'VE BEEN:



THE LONG ISLAND STORY

Long Island has a long history of innovation and resiliency – a history that contains the seeds of both its current problems and future promise.

In the 1920s, Robert Moses drove, walked and rowed his way across Long Island in creating nothing less than a network of new ideas: Perpetually preserved state-owned parks with private club-like amenities - including Jones Beach, still considered one of the world's most beautiful - and landscaped "parkways" to take people to them, leisurely, in the family-owned automobile.

For his jump across the Atlantic and into aviation history, as the first person to fly solo from New York to Paris, Charles Lindbergh chose the flat terrain at Long Island's Roosevelt Field – which one day would be the site of the world's first "shopping mall." He also chose the already-recognized expertise of Long Island's growing number of aircraft builders and repairers – the pioneers of what would become the region's dominant industry and a vital contributor to countless air battles.

After World War II, William Levitt ushered in the suburban era in Levittown with a construction system that would be replicated across the country – incorporating the principles of Henry Ford's auto assembly lines to quickly and cheaply build thousands of homes for returning GIs. Many of these soldiers would earn their engineering degrees on the same GI bill that financed their homes and go on to build a new generation of flying machines, including the Lunar Module that landed the first astronaut on the moon.

And as the great machines of war and discovery rolled off the Island's aerospace assembly lines, scientists came to Long Island for decades to quietly explore the mysteries of the universe. On a vast, secluded tract in the heart of the Pine Barrens, physicists at Brookhaven National Lab used some of the world's largest instruments to track the smallest and fastest particles known to humankind. Overlooking a quaint historic fishing village, biologists and chemists at Cold Spring Harbor Labs unveiled the intricacies of the human genome.

Long Islanders are proud of their iconic heritage, a pride that flies back to the dawn of history to the Native Americans who still make an important contribution to our economy and culture. And the Nassau-Suffolk region's assets – both natural and nurtured – continue to position it as an economic leader for the state and nation.

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But Long Island, as a rising pile of reports attest, has a way to go to realize its potential as a job-creating engine of growth. Even with some of the world's best public schools and most prestigious research institutions, even with the nation's largest commuter rail system and wealthiest communities, even with vast stores of fresh water and miles of beaches, Long Island faces serious challenges.

Long Islanders can feel the pain of nearly the nation's highest bills for property taxes and energy, a burden that is driving away some businesses and their employees. Long Islanders know it takes longer and longer to drive to their jobs or a night out. And they know – or should know – that an increasing number of children, mostly minorities, are attending the poorest, most intensely segregated schools and aren't being prepared to be as productive as possible. Too many students in even the most successful schools are graduating without enough exposure to the STEM subjects – science, technology, engineering and math. Too many students are graduating Long Island's high schools and colleges and leaving town for greater opportunities - not just for jobs, but for affordable housing and a better quality of life.

Ironically, the seeds of some of Long Island's greatest challenges were sown with its greatest successes: Moses' parkways are now clogged with traffic and his parks difficult to reach without a car. The shopping malls reinforced the reliance on the car and drained the commercial life from village downtowns, putting the tax burden increasingly on homeowners. Levitt's homes were similarly isolated from mass transit and his racial deed restrictions helped shape patterns of housing segregation that continue today with enormous consequences for people and communities.

Even Long Island's company town-like reliance on the defense industries came crashing down with the end of the Cold War.

But in the 1980s and 1990s, Long Islanders re-invented their economy from one dependent on New York City commuters and a handful of aerospace giants. And they rebuilt it on the innovative and entrepreneurial energies of thousands of smaller businesses, from high-tech manufacturers to low-tech tourism and a host of service sector concerns in between. And while a few giants emerged at the dawn of the digital age, such as the firm now known as CA Technologies, and a few still dominate the region today, most notably North Shore-LIJ Health System, the strength of Long Island's economy became its diverse base of businesses, in a wide range of fields, with a coveted labor force trained in first-rate schools and colleges.

Now, the challenge is to build on Long Island's strengths and deal with its weaknesses. The challenge is to realize the job-generating capacity of struggling communities and students by working more closely with their employers of the future. The challenge is to translate discoveries at Long Island's world-class research institutions into businesses that will attract capital and create jobs that will help make Long Island more attractive, especially to young workers. The challenge is to protect as much remaining open space as possible and create more affordable, appealing housing by building multi-family units in downtowns already situated near transit stops. The challenge is to embrace the opportunity that the surge of new immigrants – along with their energy, ideas and investment - offers for reviving neighborhoods and connecting globally.

The challenges are clear, but the Long Island Regional Economic Development Council believes they can be met to the benefit of Long Island and beyond.

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HOW WE KNOW:

PUBLIC PARTICIPATION

"The public participation process is crucial to our success!"
- Stuart Rabinowitz, President, Hofstra University

From western Nassau County to the East End of Suffolk, as demanded by Gov. Andrew Cuomo and reiterated above by the Long Island Regional Economic Development Council co-chairs, Long Islanders were more than just heard. Their ideas, expressed by the hundreds at public forums and by fax, phone, mail and email, proved invaluable in creating Long Island's five-year Strategic Plan. Five public forums, attended by more than 500 people, shaped not only the collective vision but specific ideas for realizing it. Gov. Cuomo and the LIREDC co-chairs asked explicitly for a plan that bubbled up from the many springs of stakeholders across the region. In response, the LIREDC provided opportunities for public participation that included the Council members augmented by more than 150 men and women from all walks of our social and economic life, young professionals and small business owners, who voluntarily served on the Working Groups. Many of these volunteers were stakeholders with a professional interest and expertise in a particular facet of Long Island's economic life, and many were people new to playing a role in the development of regional strategies and planning.

Time and again, a broad range of people – from executives of some of the region's largest corporations to at least one person who said she had never spoken at a forum outside her neighborhood – stepped up to the microphone to make sure that the Council heard from those on the frontlines of businesses, not-for-profits, neighborhoods and schools. It was not a process dominated by consultants and lobbyists. Neither was it a process that excluded people from communities whose voices often go unheard: youth and seniors, East Enders, blacks, Hispanics, Native Americans and other minorities were urged to participate, and their input was incorporated into the final Strategic Plan, the project scoring criteria and analysis.

"The Regional Council will develop a public participation strategy to engage stakeholders and the general public." - REDC Strategic Planning Manual

Long Island's productive public participation did not happen spontaneously. It reflected a carefully planned strategy (Appendix B) that reached out to journalists, stakeholders and a range of other Long Islanders and built on the same approach used effectively in 2009-2010 by the Long Island Regional Planning Council in 4

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producing a long-term sustainability plan, LI2035. Dozens of groups were contacted to guarantee that as many people knew about the Council and its efforts as possible and that the public's input was sincerely being sought. Some of these groups responded enthusiastically, sponsoring forums, such as one by the *Long Island Business News* and another by the Women Economic Developers of Long Island. About 500 people attended these events, which garnered considerable press coverage. Such forums, along with presentations to labor, civic and business groups, extended the reach of the Council's planned public meetings and ratcheted up participation in the process and enhanced the product – the Strategic Plan. Reflecting the tone set by Gov. Cuomo, state staff and the LIREDC co-chairs, the outreach and engagement effort achieved the desired goal of fostering meaningful collaboration without antagonizing or alienating the public.

The public participation implementation effort was led by Andrea Lohneiss, Executive Director of the LIREDC, supported by ESD Public Affairs staff, and deputy director Mark Grossman, experienced professionals whose organizing skills and knowledge of the region's economy proved invaluable. State agency press releases and outreach to the media, civic groups and social media outlets (Facebook and Twitter) as well as the "Open for Business" website and its e-suggestion box were all provided two-way communication within a short timeframe. The development of a "wiki" site specifically for Council and Working Group members provided a single location where all participants could access historic documents that provided useful data and ideas, contact information for all council and work group participants, and minutes and work produced by staff and volunteers, insuring that the members of each Working Group had access to the work of the others. Through the skillful facilitation of the Working Group co-chairs and the assistance of state staff and a volunteer writing team, a spirit of non-partisan collaboration prevailed and consensus was reached on many complex and controversial issues. (Appendix C)

The plan recognized that the Council had to properly identify and provide opportunities to engage all potentially interested parties. This was deemed necessary to solicit the ideas and insights that could provide an understanding of the region's present circumstances, its problems and its possibilities. The outreach also was designed to be continuous and interactive. It was important not only to solicit ideas that went into researching and drafting sections of the Strategic Plan, but constant feedback as well. The Council's attitude and approach to public participation could be summed up in three words: early, often, and open. The public outreach plan began when Gov. Cuomo came to SUNY Old Westbury in July to announce the formation of the LIREDC before hundreds of stakeholders and other Long Islanders, and it continued through the entire process of developing the Strategic Plan. The public's input was crucial in producing a holistic and inclusive plan that reflects the ideas and aspirations of all Long Islanders and will be crucial to its implementation in the years to come.

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WHERE WE ARE NOW:

REGIONAL ASSESSMENT OF EXISTING CONDITIONS AND ECONOMIC DRIVERS - OR FIRST, THE (MOSTLY) BAD NEWS

Long Island retains incredible assets, both natural and nurtured, that inspire justifiable optimism for the future. But, having set a national example of rising middle-class opportunity as America's first suburbs, Long Island's Nassau and Suffolk Counties now demonstrate the significant challenges of suburbs as they mature. The drivers that sustained job creation in this emerging regional economy through the second half of the twentieth century have faltered. The workforce is aging, poverty is rising and the region has emerged very slowly from the national recession: the number of Long Islanders unemployed in 2010 surpassed the number unemployed when defense fell off the cliff in 1992.

Historical Trends in Employment & Unemployment, Nassau-Suffolk

Year	No. Of Jobs	Net Change*	Unemployment Rate (%)	Number Unemployed
1990	1,125,700	-11,900	4.0	56,700
1991	1,076,400	-49,300	6.4	89,300
1992	1,051,400	-25,000	7.6	104,900
2008	1,264,000	-1,600	4.9	72,800
2009	1,227,400	-36,600	7.3	107,700
2010	1,226,500	-900	7.4	109,100

**From previous year; Source: NYS Labor Department*

- The massive migration that nearly tripled the regional population after 1950 has dwindled to a trickle –10 percent growth since 1990, and only 2 percent since 2005.

- Long Island is no longer New York City's bedroom. Eighty percent of Long Island's 1.2 million workers now work on Long Island, depending on the health of its economy for their livelihood.

- Long Island's defense industry employed tens of thousands of Long Islanders who helped to win World War II; the industry's national restructuring after the collapse of the former Soviet Union triggered the elimination of 60 percent of its jobs on Long Island.

Long Island Labor Market Trends, by Industry

Industry	Jobs, Aug. 2011	Net Change, Aug. 2010-11
Manufacturing	71,600	-1,300
Construction	63,500	-600
Wholesale Trade	69,700	2,100
Retail Trade	155,100	-400
Transportation, Warehousing, Utilities	30,200	-1,600
Information	21,100	-4,500
Financial Activities	68,600	-1,900
Professional & Business Services	157,300	1,800
Educational & Health Services	222,800	900
Leisure & Hospitality	107,400	-5,300
Other Services	53,600	200
Government	191,000	-2,400
Total Non-Farm Employment	**1,211,900**	**-13,000**

Source: New York State Labor Department

- Overall, private sector jobs are descending and so are wages.

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- Young industry sectors including biotechnology, information technology, electronics and systems integration, which are comparable to defense in the income they generate from outside the region and the wages and salaries they offer, have not come close to defense's scale.

- The high-paying defense jobs were replaced primarily by lower paying service jobs; overall, average pay per employee on Long Island has reached a 10-year low, while average wages increased nationally.

Fastest Growing Occupations Through 2018

Job Title	Projected Percent Increase
Network Systems & Data Communications Analyst	44.8
Personal & Home Care Aides	43.5
Home Health Aides	40.5
Physical Therapist Aides	32.1
Medical Scientists	29.7
Pharmacy Technicians	28.0
Physical Therapist Assistants	27.6

Source: New York State Labor Department

- The 25-to-34-year-old age cohort – the skilled workforce of the future – has declined by almost 45,000, proportionately more than in any other part of the New York metropolitan region and in contrast to a 5 percent increase nationally.

The Nassau-Suffolk Population, by Age, 2000-2010

Age Group	Nassau, 2000	Nassau, 2010	Net Change	Suffolk 2000	Suffolk, 2010	Net Change
Under 5 years	86,628	73,888	-12,740	100,304	85,984	-14,320
5 to 9 years	96,192	83,405	-12,787	109,690	97,819	-11,871
10 to 14 years	93,441	93,607	166	103,930	106,367	2,437
15 to 19 years	82,662	94,070	11,408	88,558	106,992	18,434
20 to 24 years	68,198	79,376	11,178	75,665	90,371	14,706
25 to 34 years	162,568	142,556	-20,012	191,695	166,685	-25,010
35 to 44 years	223,070	177,632	-45,438	251,600	213,341	-38,259
45 to 54 years	194,987	217,985	22,998	197,593	245,782	48,189
55 to 59 years	69,873	93,403	23,530	75,535	94,938	19,403
60 to 64 years	56,084	78,929	22,845	57,241	83,278	26,037
65 to 74 years	105,961	98,307	-7,654	91,906	107,983	16,077
75 to 84 years	72,671	72,317	-354	55,650	65,969	10,319
85+	22,209	34,057	11,848	20,002	27,841	7,839
Total	1,334,544	1,339,532	4,988	1,419,369	1,493,350	73,981

Source: U.S. Census Bureau

- Although the region has a lower official poverty rate than exists statewide (based on the federal standard of less than $21,200 for a family of four), the region's high cost of living effectively places 20 per cent of the population – or more than 500,000 men, women and children -- in poverty. More than 100,000 Long Islanders remain unemployed with at least as many under-employed or having given up looking for a job.

- The land development that supports Long Island's 2.8 million people has consumed more than 90 percent of the region's total land area. The geography and infrastructure that supported sprawling suburban growth now constrain choices for the future.

- Road and rail systems designed to carry the workforce westward in the morning and eastward in the evening are inadequately aligned with new work flow patterns, particularly reverse rail commutes from New York City boroughs and north-south automobile travel; rail goods transport is lacking in all directions.

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- New or increased sewage treatment capacity is necessary to protect the aquifer that is this island's sole source of water, and to increase the potential for denser new industrial, commercial or residential development, particularly around transit hubs. Such infrastructure investment is hindered by the highly dispersed character of the population distribution, with 80 percent of residents in single-family homes.
- Long Island lacks diversity in its housing stock, with too few of the rental units that young workers and retirees now prefer. Foreclosures in the region are highest in the state.
- Increased land values fueled by past growth threaten agricultural/marine industry/tourism land uses, as owners of farm or shorefront land are under tremendous pressure to sell their development rights.

Median Price for Newly Sold Homes, 2011

Month	Nassau	% Change*	Suffolk	% Change*
January	$415,000	0.0	$313,000	-1.3
February	395,000	2.6	300,000	-7.7
March	385,000	-4.3	300,000	-1.6
April	405,000	2.5	290,000	-8.8
May	395,000	0.0	314,500	-0.6
June	408,000	-1.7	310,000	-7.5
July	415,000	-3.9	315,000	-7.4
August	420,000	-4.5	324,000	-0.3

**From a year ago; Source: Multiple Listing Service of Long Island*

Clearly, Long Island faces an array of formidable challenges. But it also boasts many assets and opportunities, and the approaches described in this strategic plan can transform Long Island into a global center of innovation with a sustainable, knowledge-based economy. High-value industries with high-paying jobs that contribute to regional wealth generation through the sale of products and services to non-New York State customers – as the defense industry did -- will ensure continued strength for our critical local service industries and enhance the quality of life for all of our people.

The planning process that generated these strategies and the initiatives to implement them was organized around four thematic Working Groups – Innovation and Industry Clusters, Infrastructure, Natural Assets and Workforce and Education. The next section of this report will describe the primary assets, major obstacles and significant economic development opportunities that have been identified by the four Working Groups.

Sales Tax Revenues, Nassau and Suffolk County Governments, 2011 ($ Millions)

Month	Nassau County	Suffolk County
January	$82.9	$91.7
February	68.2	74.6
March	94.6	102.5
April	78.6	88.9
May	75.4	84.6
June	96.8	117.8
July	79.6	95.8
August	77.6	92.6
Total, Jan.-Aug. 2011	653.7	748.5
Total, Jan.-Aug., 2010	660.8	728.4
Percent Change	-1.1	+2.8

Source: New York State Department of Taxation & Finance

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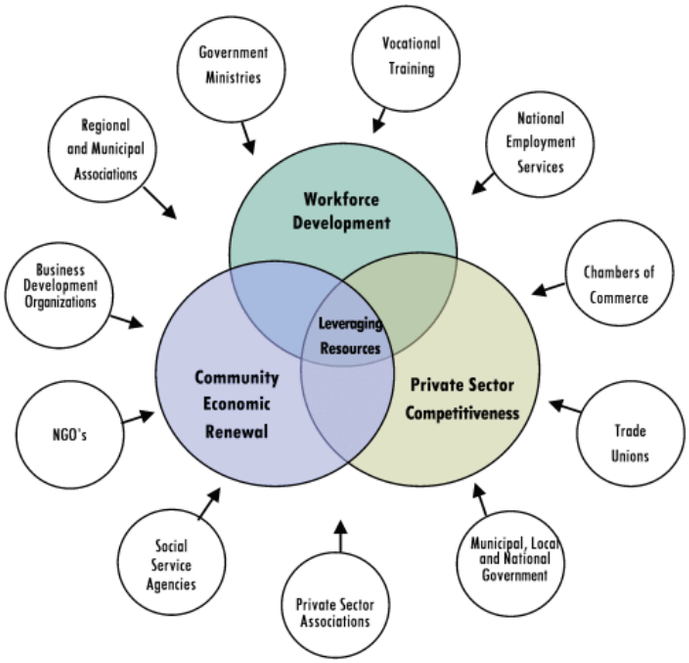
WHERE WE WANT TO BE:



THE ECONOMIC DEVELOPMENT VISION

"Everything is inter-connected; economic, infrastructure, environmental and social systems affect and influence each other…" - LI 2035 Regional Comprehensive Sustainability Plan

This section presents the critical issues, opportunities and strategies of our four working groups:

INNOVATION AND INDUSTRY CLUSTERS

INFRASTRUCTURE

NATURAL ASSETS

WORKFORCE AND EDUCATION

Within each group's report, we examine the critical issues through a SWOT analysis, assessing the strengths, weaknesses, opportunities and threats or consequences of inaction in each area. Then we articulate strategies that move us closer to our vision.

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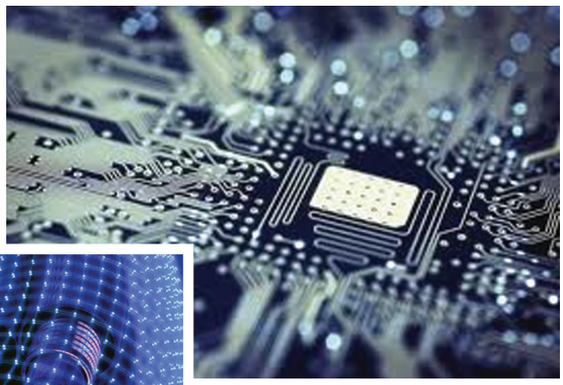
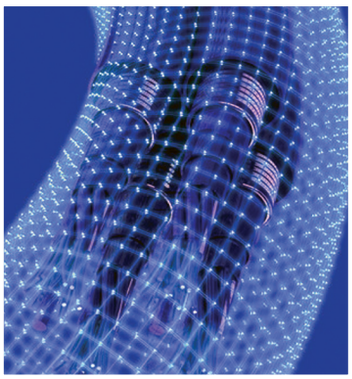
INNOVATION AND INDUSTRY CLUSTERS





Long Island is in the midst of a long-term economic transition, one that started with the decline of the defense industry and in the region's once-surging population growth. But the Island has the assets to remake its economy, drawing on embryonic and emerging technologies, as well as its long list of historic strengths: its manufacturing legacy, research capacities, highly skilled workforce; established educational and training institutions; access to needed financial resources and professional business services; and entrepreneurial tradition. The goal is nothing less than to reinvent ourselves as a versatile, nimble global center of innovation.

The importance of building Long Island's expertise in these critical new manufacturing processes is highlighted in a 2009 article in the *Harvard Business Review*: "[T]he decline of manufacturing in a region sets off a chain reaction. Once manufacturing is outsourced, process-engineering expertise can't be maintained, since it depends on daily interactions with manufacturing. Without process-engineering capabilities, companies find it increasingly difficult to conduct advanced research on next-generation process technologies. Without the ability to develop such new processes, they find they can no longer develop new products. In the long term, then, an economy that lacks an infrastructure for advanced process engineering and manufacturing will lose its ability to innovate."

As previously noted, Long Island also faces formidable obstacles that inhibit the broad, long-term cooperation required for success. But the collaborative process initiated by the Regional Economic Development Council has helped spur an unprecedented degree of focused cooperation among the region's various sectors, from business and technology, to research and educational institutions and government agencies.

The result has been the formulation of an integrated approach to promote cutting-edge industry clusters, reflected through the lens of three critical issues. These issues capitalize on the region's innovation assets while sustaining and enhancing its technology-intensive manufacturing base. This approach also requires the complementary steps presented by the Workforce and Education Working Group: ways to increase the proportion of STEM-educated graduates entering the workforce, while augmenting a broad regional structure for training workers at all levels.

But while Long Island possesses assets rivaling those of Silicon Valley, the Route 128 corridor or Research Triangle, our technology economy pales in comparison. What we have been lacking is a comprehensive, structured regional framework, not only to encourage discovery and invention, but to transform them into new commercial products and ventures—and bring them to market.

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CRITICAL ISSUE #1: Leveraging Research Institutions to Commercialize New Technologies

Strengths: An exceptional cluster of high-level research facilities

Long Island is home to an extraordinary concentration of world-class federal, state and private research institutions. Collectively, Brookhaven National Laboratory, Cold Spring Harbor Laboratory, the Feinstein Institute for Biomedical Research at North Shore-Long Island Jewish Health System, and Stony Brook University bring more than $1 billion a year into the region, primarily through funding from federal research agencies. These funds not only support more than 5,000 high-technology jobs, but provide the underpinning for discovery and invention—the intellectual output essential for creating a wide array of new products and devices in biomedicine, software and information technology, national defense and commercial homeland security systems, and, potentially, in alternative and renewable energy "clean-tech." The new medical school recently opened by Hofstra University and North Shore-LIJ, as well as Hofstra's new engineering school, will expand upon these formidable innovation assets.

Commercialization facilities associated with these institutions now include the Broad Hollow Bioscience Park, a Cold Spring Harbor collaboration with Farmingdale State College, and the first two buildings in the Stony Brook Research and Development Park—the New York State Center of Excellence in Wireless and Information Technology (CEWIT) and the Advanced Energy Research and Technology Center (AERTC). They already are proven models, demonstrating the enormous potential of using public-private partnerships to commercialize new technologies, collaborate with established companies in R&D and foster the growth of start-ups. CEWIT alone has collaborated with 94 companies, helped industry partners win nearly $100 million in joint federal contracts and create or retain almost 1,000 jobs. It also has helped start-ups and young companies obtain nearly $38 million in investment.

AERTC just opened in the summer of 2011, yet its affiliated researchers already have generated some $35 million in federal and other external funding, including the $12.4 million DOE Smart Energy Corridor Smart Grid Demonstration project in partnership with the Long Island Power Authority and Farmingdale State College, and two DOE Energy Frontier Research Centers—one in emergent superconductivity at Brookhaven National Lab and a second in battery technology, led by Stony Brook. AERTC was

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instrumental in creating the New York State Smart Grid Consortium, whose mission is to establish a leadership position for New York in Smart Grid technologies, the biggest energy technology revolution in the last century.

The Morrelly Homeland Security Center, located at a former Northrop Grumman site, is a cutting-edge "C41" facility (Command, Control, Communications, Computer, and Intelligence) that continues Long Island's renowned defense tradition. Only 30 miles from Ground Zero, where more than 300 Long Islanders died, it is at the forefront of fighting terrorism by providing a "living lab" for the development of new first responder and homeland security solutions. The Morrelly Center also is the home of the region's Regional Technology Development Center of the Long Island Forum for Technology. Long Island's two Small Business Development Centers—which have generated more than $400 million in economic impact, including technology-based business development—are located at Farmingdale State, near Broad Hollow, and in the Stony Brook R&D Park.

Weaknesses: The vulnerability of government funding, the uneven history of high-tech development

Since World War II, the federal government has been the only domestic funding source capable of sustaining significant investments in basic science and engineering research. Science, engineering and technology development is dependent not only on substantial levels of funding, but also on the consistency of such funding—research institutions and businesses need to know they can count on it. So the current lack of support for existing and future initiatives – whether reflecting budgetary or ideological disputes—presents a serious problem nationwide, and especially for a region that wishes to base its economy on Big Science-based initiatives.

In addition, while Long Island has a venerable record of entrepreneurial achievement in the defense sector, its history as a high-tech region has not been smooth. There have been some prominent start-ups that have become market leaders, notably CA Technologies, a $4 billion IT management and software company with customers in almost every country, and former Symbol Technologies, which made bar code scanning a global phenomenon and is now the enterprise mobility division of Motorola Solutions. These giants have greatly benefited the Island, spawning managerial and technical talent for other companies throughout the region's software industry.

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On the other hand, many start-up companies created out of collaborations with Long Island's research institutions have ended up leaving the area. For example, Cold Spring Harbor technologies have formed the basis for 13 companies; only two have been retained within the region. Of the 37 companies started around Stony Brook technologies, 21 are on Long Island or in New York State. The reasons most often cited are Long Island's high costs of taxes, energy and labor that often make it prohibitive for entrepreneurs to expand an incubator into an actual manufacturing concern. That's why initiatives that immediately offset costs are necessary to increase our competitiveness with other, less expensive regions.

One important example is the New York State Excelsior Jobs Tax Credit Program (EJP) designed to leverage private investment and job creation. A discretionary performance-based ten-year tax credit program, Excelsior supports businesses that invest in new production capacity and will add permanent jobs. Projects qualifying for EJP align with our vision of supporting entrepreneurship, global competitiveness and advanced manufacturing. As part of supporting its priority projects, the LIREDC recommends awarding EJP tax credits to critically important Long Island companies in industries compatible with our vision statement, including pharmaceuticals, agri-business, aerospace and advanced manufacturing. The EJP awards would leverage over $200 million in private investment and create nearly 3,800 jobs on Long Island.

Opportunities: The ground-breaking potential of Accelerate Long Island

ACCELERATELI...

An unprecedented collaborative effort - Accelerate Long Island - offers a new means to scale up industry -university research, technology commercialization and new enterprise development. Accelerate Long Island resulted from a report commissioned by one of the region's industrial development agencies and presented in January 2011 to the heads of Long Island's research institutions, as well as other regional leaders. The Long Island Association, the region's largest business organization and itself a potential catalyst for sustainable growth, has formed an Accelerate Long Island committee to oversee its initial development.

In November, 2011, the LIA will be forming a not-for-profit corporation with a diverse, distinguished group of institutions, including Brookhaven National Lab, Cold Spring Harbor Lab, Hofstra, North Shore-LIJ Health System and its Feinstein Institute, Stony Brook, CA Technologies, Canrock Ventures LLC, and the LIA. Its mission will be to identify promising technologies within the partner research institutions and connect them with the entrepreneurial and investment resources to bring them to the marketplace. The founding institutions have each committed up to a $100,000 a year for three years for partial operational support and they are seeking partial state funding to pull the innovation ecosystem pieces together and initiate the first round of new enterprises.

Accelerate's key features include providing multidisciplinary R&D resources for early-stage technology development; proof of concept and prototyping; entrepreneurial mentoring facilities for new companies; and strategic partnering opportunities with established technology companies.

Accelerate's collaborative cost-saving services will make Long Island (and New York) an appealing and affordable place for entrepreneurs to take the steps from incubation to "acceleration."

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Threats and Consequences of Inaction:

The demise of Long Island as a technology-based leader

These programs represent the most extensive collaborations ever among Long Island's research institutions, technology-based businesses and business organizations, and the financial community. The failure of these efforts would be more than disappointing; it would signify to Long Island's national and global competitors, and to the region itself, that we are not seriously engaged in technology-based economic development and that our commitments are insufficient to our world-class aspirations. It would be a clarion call to the bright, the ambitious, the innovative, and the entrepreneurial among us to run, not walk, to the exits.

CRITICAL ISSUE #2: Strengthening the Advanced Manufacturing Base

Strengths: A significant sector of specialized manufacturing

More than 3,500 companies on Long Island are currently classified as manufacturing companies, representing a range of industry sectors—not including almost 4,500 information technology firms that are not currently classified as manufacturers under the state's definitions. These companies provide a variety of job opportunities with a significant proportion of them high-skill and high-wage. For example, the median salary for chemists in chemical manufacturing, which includes biotechnology, is $71,642; for computer software engineers, $92,132; for electrical and electronic engineering technicians, $57,037; for first-line supervisors/managers of production and operating workers in fabricated metals manufacturing, $69,269; and for tool and die makers in machinery manufacturing, $56,879.

Manufacturers also have strong external markets for their advanced materials, biomedical, electrical and electronic components, fabricated metal and machinery (including computer and transportation machinery), software and information technology products. Many of them fall into four large industry clusters where Long Island has the opportunity to capture and maintain a position of global leadership. But some already have achieved such prominence and are a critical component of Long Island's pipeline of job creation.

One institution that provides specialized assistance to numerous manufacturing companies in defense and homeland security industries is the Morrelly Homeland Security Center. And as noted above, the Strategic Partnership for Industrial Resurgence (SPIR) at Stony Brook provides advanced technology assistance on a fast turnaround basis across the engineering disciplines for companies at any stage of

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growth. SPIR has assisted more than 425 companies through 2,420 projects, ranging from R&D and new product prototyping to failure analysis and manufacturing process improvement. It has helped these companies to bring $104 million in federal funding to Long Island and to create or retain 12,144 jobs.

Weaknesses: Long Island manufacturers face fierce global competition

Manufacturing jobs have declined on Long Island, as they have across the country. According to the New York State Department of Labor, Long Island lost 10,700 manufacturing jobs between August, 2007, and August, 2010, while New York lost 85,400 manufacturing jobs overall. To remain competitive in national and global markets, Long Island manufacturers as a group need to follow the example of their highly successful peers and dramatically increase their productivity. In addition, manufacturers across Long Island's industry sectors lack access to facilities that would enable them to develop competence in manufacturing with composite materials. For example, 55 percent of Boeing's new Dreamliner aircraft will be made of composite materials, as were the fuselage and rotors of the Stealth helicopters that played a critical role in the capture of Osama Bin Laden.

Opportunities: The development of lean and "green" manufacturing processes

Long Island manufacturers increasingly need to adopt green or sustainable manufacturing practices throughout their own processes, as well as in their supply chains. Sustainable manufacturing goes far beyond the ISO 14000 environmental management system standard. It requires considering not only the environmental impact and resource consumption characteristics of the manufacturing process, but also the environmental and economic impacts of the product life cycle through the end of its useful life. This will require innovation in the architecture of manufacturing systems.

The Advanced Material and Manufacturing Technology Innovation Center will provide access to leading-edge technologies for green, environmentally-benign manufacturing – net zero-energy, low-carbon footprint and zero waste. This will enable manufacturers to conduct life cycle analyses during the new product development process and test-manufacture prototypes or small runs. It also will assist manufacturers in retrofitting their own plants, helping them to preserve our island's natural assets and compete successfully in an increasingly environmentally-conscious market place. The Center also will provide access to state-of-the-art composite materials formulation, testing and fabrication equipment, otherwise prohibitively costly at the R&D stage.

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The principles of lean manufacturing – derived most notably from the Toyota Production System – first caught Americans' attention in the 1980s, when Japanese manufacturers were cleaning the clocks of our country's automobile industry. Despite the economic booms and busts over the last decade, the list of technology products invented in the United States and now manufactured primarily offshore includes industrial robots and electron microscopes, in addition to color TVs and microwave ovens. But there are still Long Island companies that have embraced "lean" principles and triumphed against much lower cost international competitors. And there are new opportunities to re-shore manufacturing jobs in the selected industry sectors and niches where we can dominate. A May 2011 study by the Boston Consulting Group suggests that China's manufacturing cost advantage over the U.S. will be lost in the next five years, as skilled wages climb because of the supply-and-demand imbalance for skilled labor. "We expect net labor costs for manufacturing in China and the U.S. to converge by around 2015." [Harold L. Sirkin, Boston Consulting Group partner and author of GLOBALITY: Competing with Everyone from Everywhere for Everything, quoted in May 5, 2011 press release announcing the BCG analysis.]

Long Island manufacturers as a group need to follow the example of their highly successful peers and dramatically increase their productivity. Offshore manufacturers are price-competitive, but other considerations enter into buying decisions for the high value-added products that are a regional specialty. For example, D'Addario & Company dominates the global market for music accessories, selling in 101 countries. Omega Molding and Framerica make Brookhaven Town one of the nation's largest manufacturers of wholesale picture framing products. The region also is a national center of the dietary supplements industry.

Threats and Consequences of Inaction: A severe decline in manufacturing, with few survivors

Although a few manufacturing enterprises with commanding positions in their market niches are likely to survive, a severe decline in manufacturing will leave the region with a bifurcated set of industry sectors: with R&D in our key technology-based industry sectors at the high-paying end, and many enterprises at the low-paying end.

CRITICAL ISSUE #3: Erasing the Shortage of Engineering Professionals & Qualified STEM Workers

As noted in the Workforce and Education section, the region's shortage of technical talent is a significant drag on progress. Not enough new science and engineering graduates start companies; not enough of the start-ups grow to become established companies, absorbing increasing numbers of new science and engineering graduates, and acquainting them with the concepts and skills of growing such businesses; not enough of the students and businesses find allies in research and educational institutions equipped to help them develop a new business so that they can become a new cadre of entrepreneurs who, in turn, inspire and nurture new students.

There already is a shortage of engineers, and while the region's highly skilled workforce is aging, there are 129,000 fewer 25- to 34-year-olds—too few to replace this critical population group.

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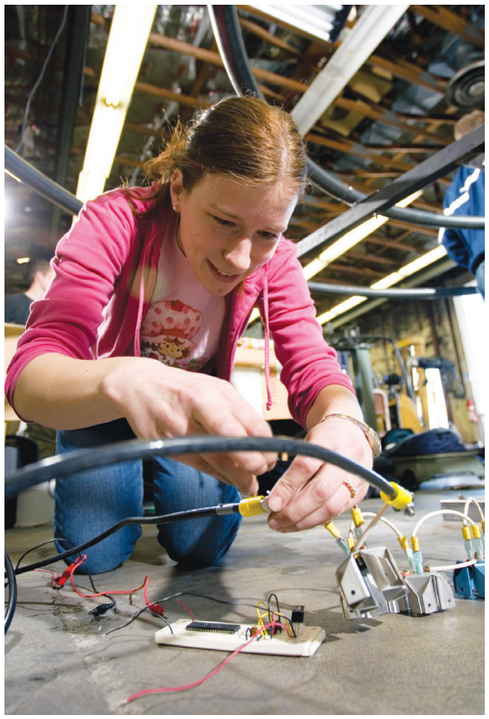
Strengths: A broad base of higher-ed programs in STEM disciplines

Long Island has a wealth of engineering and STEM educational resources, particularly at institutions of higher education. These include a mature public College of Engineering and Applied Sciences at Stony Brook. It offers accredited degree programs at the bachelors, masters and doctoral levels in biomedical engineering, computer science, electrical and computer engineering, and mechanical engineering, as well as materials science and engineering and applied mathematics and statistics, chemical and molecular engineering.

Farmingdale State College offers accredited bachelors degree engineering technology programs in electrical engineering technology, computer engineering technology, mechanical engineering technology, and software technology. Nassau and Suffolk County Community Colleges have pre-engineering and associate degree technology programs.



Two private institutions are growing players in engineering. Hofstra University has taken steps to create a School of Engineering. It plans to seek accreditation for its undergraduate engineering science degree and to transform its current Bachelor of Science offerings in electrical engineering, industrial engineering and mechanical engineering into accredited bachelor of engineering programs. In addition, it plans to initiate B.E. degree programs in biomedical engineering and civil engineering. Meanwhile, New York Institute of Technology offers B.S. and M.S. programs in electrical and computer engineering and computer science; an accredited B.T. in electrical and computer engineering technology; a B.S. in mechanical engineering, engineering management, information technology, electrical and computer engineering technology, and telecommunications network management; and an M.S. in energy management and environmental technology.

Collectively, these institutions of higher learning draw undergraduate students primarily from within the region and attract quality students nationally and internationally, especially at the graduate level. As noted in the Workforce and Education Working Group section, they are supported by a strong K-12 system of public education with national recognition for its quality. The region's three BOCES (Boards of Cooperative Educational Services) provide a diverse menu of career and technical education offerings that are beyond the means of most school districts, including computer technology, electrical trade and alternative energy, and welding and metal fabrication. Another regional strength is a technically-oriented support system that includes Local Workforce Investment Boards (LWIBs), Long Island Works, and the Long Island Forum for Technology (LIFT). In 2007, the LWIBs and LIFT launched Connect Long Island, a partnership that has since grown to include Long Island leaders in government, education, and industry.

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Weaknesses: The supply of STEM-trained workers is not meeting local industry demand

Nevertheless, the existing educational infrastructure is insufficient to produce the number of engineering professionals that the economy needs. For example, Hofstra currently produces approximately 175 graduates a year, while Stony Brook produces some 600. Long Island lags well behind other high technology regions that are our competitors. Per 1 million in population, Long Island produces 265 engineers a year, in contrast to the Seattle region, which produces 741, and Silicon Valley, at 788.

Thus, there is a lack of K-12 technical graduates and programs aligned with the skilled non-professional needs of technology-based and manufacturing industries. Although international students bring much talent to Long Island's graduate engineering programs, they are often unable to remain on Long Island: Highly qualified graduates are unable to remain on Long Island with employers who want to hire them because of visa constraints and, in the case of the defense industry, citizenship restrictions.

Opportunities: Capacity to produce more engineering graduates

A proposal called EngINE: Increase Engineering Enrollments will provide challenge funding to enable the engineering institutions to obtain additional faculty and other teaching resources. The investment will increase engineering graduates across the spectrum of disciplines by 175 a year in the first two years, and a similar number in the second two years.

While the ongoing impact of the stagnant economy on our region is limiting educational opportunities—leaving many students and their families unwilling to pay the additional costs of attending college out of town—this environment also creates the opportunity to attract our high school graduates to Long Island engineering and technical programs. The pressure on students to choose potentially high-paying fields creates an opportunity at the K-12 level to attract more Long Island kids to STEM programs, where the skills they learn will prepare them for such programs at the college level.

The Long Island Community STEM program will bring STEM education and encouragement into the school districts of every one of Long Island's distressed areas. Based on their performance in existing programs, students in poorer districts, many of them minorities, have the potential to succeed in STEM education and reap the benefits.

Threats and Consequences of Inaction: The shrinkage of our technology-based sector beyond recovery

Without the talent they need to succeed in global competition, our region's manufacturers and technology-based companies are in danger of shrinking, failing or leaving Long Island for areas where these critical needs receive a more supportive response. Unless a concerted effort is made to lift up distressed school districts, a large number of young people will lose their opportunity to achieve the American Dream and the region will have lost an opportunity to replenish a scarce resource.

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WHERE WE WANT TO BE:
INNOVATION AND INDUSTRY CLUSTER STRATEGIES

Many of the strategies necessary to promote innovation also are synchronous with the core strategies presented by other working groups, particularly the development of a regional workforce with greater capabilities in the STEM professions. It's important that such strategies are promoted collaboratively, not in traditional policy "silos," to leverage funding in a time of scarcer resources.

To achieve the economic potential of key industries like advanced manufacturing, we must expand current regional assets that can make Long Island a global leader in these clusters. In particular, we should:

- **Enhance current collaborative partnerships** among research facilities, university and high-tech businesses. Many of these collaborations are already proven models, and efforts like Accelerate Long Island offer enormous potential to scale up commercialization of new technologies and development of new enterprises.

- **Encourage improvements in manufacturing productivity.** "Make it in NY" , a strategy to bring manufacturing back to NYS from off-shore competitors, would be enhanced by reactivation of Empire State Development's very successful Industrial Effectiveness Program. This economic development tool provides matching state grants to companies to improve manufacturing productivity. On Long Island the impact is leveraged by a LIPA five-year electric rate discount which enhances cash flow as companies implement more effective production processes.

- **Support advanced technology assistance programs** for manufacturers of high-value added products that may be exported to markets off Long Island, across the nation and around the world. There are strong external markets for advanced materials, such as biomedical, electrical and electronic components, fabricated metal and machinery (including computer and transportation machinery), software, and information technology products. Institutions such as the Morrelly Homeland Security Center and the Strategic Partnership for Industrial Resurgence at Stony Brook have already assisted numerous companies and helped them create thousands of jobs.

- **Increase education and training in "lean and green" manufacturing processes.** Long Island shouldn't follow the lead of low-paying states such as Mississippi and South Carolina, whose cost of living is so much lower. To remain competitive in national and global markets, Long Island manufacturers as a group need to follow the example of their highly successful peers, like D'Addario & Company, which dominates the global market for music accessories, and dramatically increase their productivity.

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- **Encourage young entrepreneurs,** especially young technology experts, to learn marketing, finance and other business skills. As shown in the history of Silicon Valley in California and the Research Triangle in North Carolina, these activities must be supported by regional and state political leaders over time, well beyond any individual's term of office.

- **Substantially increase STEM education,** from K-12 to higher education, particularly initiatives such as the Long Island Community STEM program, created to bring STEM education and encouragement to schools in Long Island's distressed areas.

- **Use the state's Excelsior tax credit program** to make Long Island more competitive by offsetting some of its chronic high costs and leveraging private investment.

- INFRASTRUCTURE -

The development of infrastructure was essential to Long Island's robust growth, and will be indispensible to its revitalization. Our region is grappling with five daunting challenges: deteriorating downtowns and commercial areas; failing or absent sewers; an aging and outdated transportation system; homogenous and unaffordable housing stock; and outdated land use policies that often seem to obstruct promising projects more than protect the environment and community character. Without urgently-needed improvements to infrastructure, Long Island will face continued stagnation and forfeit future economic development and prosperity. In blight there is opportunity to win approvals for projects that in the past communities have opposed.

Many regionally significant projects get bogged down at the local level during the State Environmental Quality Review Act (SEQRA process). The LIREDC recommends that the State assert itself as Lead Agency for all projects identified in the Strategic Plan. Such a declaration could fast-track projects that have been identified as transformative, without posing any threats to the environment that the law was designed to protect. No changes in state law or regulation would be required as long as a state agency is either undertaking, approving or funding a part of the project.

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CRITICAL ISSUE #1: Revitalizing Downtowns, Blighted Neighborhoods and Commercial Centers

Long Island is virtually built out. Currently, less than 9 percent of Long Island's total land is both undeveloped and available for the development of new residential, commercial or industrial activity.[1] At the same time, many of the strip malls and big-box stores that were built as a result of local zoning policies are now vacant, graffiti-ridden eyesores, victims of the recession. Redeveloping these and other outdated commercial and industrial spaces for reuse could require complex and difficult solutions.

For example, the shuttered nuclear power plant site at Shoreham could be redeveloped into a renewable energy manufacturing center, thereby supporting a sector that will create high-paying high-tech jobs, while protecting our environment.

On the other hand, shifting from a sprawling development pattern to one that focuses on downtown revitalization better positions the region for sustainable development. And giving Long Island's existing downtowns a much-needed facelift would provide a significant economic stimulus across the region.

Downtowns can accommodate new, diverse housing opportunities, entertainment venues, restaurants, and shopping. They attract high-tech companies and young, skilled workers. According to the Long Island Index, "Long Island's downtowns, linked by one of the nation's most extensive suburban transit networks, can provide most of the housing and jobs that Long Island needs, helping to hold down property taxes with minimal changes to the Island's existing single-family neighborhoods and open spaces."[2] Redevelopment of downtowns also ameliorates another major problem on Long Island – high property taxes. New housing and shopping can expand the local tax base.

Another target for investment in redevelopment, as well as skills training, is Native American lands and people, who experience relatively high unemployment and low opportunity. The economic future of Long Island should incorporate Native Americans, such as recently federally recognized Shinnecock Nation, as an enduring contributor to our workforce and an integral steward of the region's natural assets. Improvements to the infrastructure of Native American reservation lands will stimulate economic growth, especially tourism, and protect the environment.

[1] http://www.rpa.org/pdf/LI2035_Visioning_Initiative_Report.pdf.

[2] http:// www.longislandindex.org/fileadmin/Reports_and_Maps/2011_Index/Getting_it_Done_2011_LI_Index_Special_Analysis.pdf.

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Strengths: Recent local examples of success

Long Island has several existing downtowns that can serve as models for redevelopment, such as the Village of Patchogue, where government officials have driven the redevelopment process and worked with the community to revitalize the downtown. In general, there has been less civic opposition to the redevelopment of blighted areas.

The effort to revitalize downtowns could present an opportunity to site new, affordable, and rental housing for our young people, empty nesters, and low-income families.

Weaknesses: Redevelopment can be long and arduous

Local governments often struggle to facilitate the revitalization of existing commercial centers and downtowns. Impediments related to land assembly and environmental remediation can make redevelopment seem more challenging than construction on open land. In particular, when downtown revitalization includes plans for multi-family housing proposals, developers also may encounter community opposition over issues of density. At the same time, developers and local elected officials often fail to engage community groups and a diverse set of stakeholders in the redevelopment process. Successful redevelopment requires commitment to community participation and an explicit consideration of likely community benefits, community costs, and equity outcomes.

Opportunities: Creating vibrant centers of economic activity

Long Island downtowns have the potential to become centers of economic activity. A 2010 study found that there are 8,300 acres of undeveloped land and surface parking lots within a half mile of downtown centers and Long Island Rail Road stations, enough to provide 90,000 new housing units with a range of town houses, garden apartments and mid-size apartment buildings.[3]

The region could capitalize on its extensive commuter railroad system to revitalize downtowns and encourage intra-island travel through mass transit connections. Mixed-use, transit-oriented developments (TOD) would maximize access to transit and generate short-term and mid-term construction jobs. In the long term, TOD would generate job opportunities as employers seek to capitalize on the increased accessibility and attractiveness of Long Island locations. A TOD neighborhood typically has a center with a transit station surrounded by relatively high-density development with progressively lower-density development spreading outward from the center.

By centering TODs around LIRR stations, it would be possible to link these developments to employment opportunities on Long Island and in New York City. Long Island has existing and proposed TODs in Ronkonkoma, Farmingdale, East Farmingdale, Wyandanch, Brentwood, Copiague, Bay Shore, Patchogue, Hicksville, Bellport, Mineola, and Hempstead. Other downtowns that have plans for revitalization include Glen Cove, Freeport, Riverhead and Valley Stream, the latter of which has a station about a mile from the Queens border and a multicultural downtown ripe for renewal. These efforts are important to our

[3] http://www.longislandindex.org/fileadmin/Reports_and_Maps/2010_Index/2010_Index.pdf.

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region because they help address regional challenges by creating new job opportunities, strengthening small businesses, creating vibrant places attractive to young people, and diversifying our housing stock.

The development of Nassau County's Hub area is a unique opportunity to create a vibrant mixed-use downtown. Surrounded by regional assets such as Hofstra University, Nassau Community College, Museum Row, Roosevelt Field, Eisenhower Park, the Mitchell Field Athletic Complex, Class A office space, and the community of Uniondale, the Hub's location should enable it to become a major economic engine that creates quality jobs. Office space should enable nearby academic and research institutions to spur new business creation, particularly in biotech. It should also provide opportunities to link Hub enterprises with small businesses and incubators in Uniondale and Hempstead, creating new industrial cluster. The Hub should also include mixed-income rental housing to attract generations X, Y, and baby boomers, as well as entertainment venues. In short, the Hub should integrate a mix of daytime and night-time uses – housing, offices, restaurants, and retail – into a walkable / bikable destination that provides a range of living-wage workforce opportunities. It's critical to provide a parking garage to free up land for more productive use.

Threats and Consequences of Inaction: **Young, high-skilled workers may leave the Island**

Fiscal austerity at every level of government limits the resources available to stimulate downtown reinvestment. Without government support, many developers are hesitant to take risks where they perceive that redevelopment will be more difficult and reap smaller returns. At the same time, there is also a danger that downtowns will be rebuilt—but in ways that disregard local housing, transportation, and employment needs.

If the region does not support planned and equitable redevelopment, it may become harder to retain the young workers who seek out denser, less car-dependent places to live and work. Continued lack of investment in downtown areas may also perpetuate patterns of racial and economic segregation that shut out certain communities from the benefits of growth.

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CRITICAL ISSUE #2: Expanding and Maintaining Sewer Infrastructure

The regional sewer infrastructure – which is either failing or absent across much of the Island – is a key roadblock to successful economic growth. A U.S. Conference of Mayors Report called sewer infrastructure "the foundation of economic development," and a 2008 U.S. Bureau of Economic Analysis found that for every dollar spent on sewer infrastructure in New York State, 2.34 jobs are created.[4]

Not only does sewer infrastructure stimulate economic development, but it protects Long Island's waterways and limits the pollution of our groundwater – an important link between the Infrastructure and Natural Assets sections of this strategic plan. Wastewater treatment facilities are especially critical on Long Island, which relies on its sole-source aquifer for drinking water. Waste that seeps into groundwater through septic systems threatens the long-term quality of our drinking water and the bays that are central to the tourism and fishing industries.

The majority of Nassau County is served by wastewater treatment facilities, including three county-run facilities. The county-run facilities process 85 percent of the sewage collected within the county and 10 other independent treatment facilities process the remaining 15 percent. In addition, six municipal sewer districts collect sewage and pump it to county facilities to be treated. Suffolk County operates one regional sewage treatment plant, the Southwest Sewer District, and there are many small, private sewage treatment plants serving local communities and isolated developments.

Strengths: Nassau already plans improvements

Nassau County is prepared to make improvements to waste water systems (rehabilitation and expansion) that will cost $807 million. About $376 million of that amount will be necessary to either improve the Bay Park STP treatment process or construct an ocean outfall, in response to more stringent future discharge limits.

Weaknesses: Planning and financing are daunting

Though Nassau and Suffolk Counties have acutely different needs, both systems have long suffered from a lack of strategic planning and investment. Evidence of episodic area well water contaminations and beach

[4] http://www.usmayors.org/urbanwater/documents/LocalGovt%20InvtInMunicipalWaterandSewerInfrastructure.pdf.

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closures indicate that Long Island must coordinate its water use and sewer management planning and make critical investments to protect valuable and vulnerable natural resources. Sewer upgrades and water supply protection will improve Long Island's capacity to change its development patterns to better meet emerging housing and transportation needs.

Nassau's sewers urgently need to be upgraded to reduce the level of nitrates released into its bays and enable its downtowns to expand. (The county is contemplating privatizing its sewage treatment plants, and it is unclear how this plan would affect the prospects for repair.) The current capacity limits of the Shore Road Sewage Pump Station (Glen Cove) and the Roslyn Pump Station would preclude additional sewering within the Villages of Sea Cliff and Roslyn, including the redevelopment of the former Pall Corporation site.

Suffolk's sewer construction has not expanded to meet the demands of past growth. Less than 30 percent of Suffolk County's 900 square miles have operating wastewater treatment facilities.[5] The Bergen Point Sewage Treatment Plant is the headquarters of Suffolk's Southwest Sewer District, and its ocean outfall pipe needs to be repaired so effluent is not discharged into the Great South Bay.

Opportunities: Widespread public support for sewers

The last decade has seen a change in attitude regarding the need for sewage treatment facilities. Today, there is an unprecedented consensus that Long Island must build new sewage treatment plants and upgrade existing ones. Downtown revitalization and large-scale new construction both amplify the needs for sewer construction, while also providing the opportunity to plan for adequate sewer service.

Nassau County is already prepared to rehabilitate and/or expand waste water systems. Suffolk County, which went through a major scandal over sewer construction 30 years ago, has created an annual fund that will dedicate as much as $200 million for the construction of wastewater treatment facilities over the next ten years. Multiple studies are underway to plan for sewers in a number of communities around the county. But a critical funding gap remains: it will cost almost $800 million in design and construction to meet Suffolk's sewer needs.

Threats and Consequences of Inaction: Lack of sewers sharply limits development

Lack of sewers is a problem for developers, because construction of sewage treatment plants is costly and makes revitalization cost-prohibitive. It also places a considerable burden on municipalities that attempt to supply sewer services for new developments without county support. The Village of Patchogue's economic rebirth, for example, would not have been possible without the expansion of its sewage treatment plant.

More generally, it is essential to modernize sewer infrastructures with filtering and treatment capacity to support the introduction of innovative technologies such as biomedical research, while preserving public health. Failure to do so will reactivate regional fears (of adverse health effects such as cancer clusters) that present barriers to

[5] http://www.newsday.com/opinion/oped/opinion-suffolk-can-protect-water-grow-1.3114117.

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CRITICAL ISSUE #3:
Creating an Adequate Transportation System

Historically, Long Island's infrastructure reinforced a particular development pattern: Its East-West orientation and automobile-centered transportation system provided easy access to New York for commuters in sprawling bedroom communities. Yet, this system has kept us from meeting critical regional needs. Communities and businesses across Long Island are demanding reduced congestion, faster transport, and improved North-South connectivity to Long Island assets.

Many communities need better transit connections to living wage employment centers so that they can benefit from new job growth and remediate economic inequalities exacerbated by poor transportation access. Businesses lack rail freight options, forcing trucks onto already-congested roadways. In the long term, this congestion may cost the region dearly. Long Island's disproportionately high greenhouse gas emissions (GHG) may contribute to the vulnerability of its coastal assets. And federal and state policies that incentivize energy conservation may penalize our region if we do not invest in energy-efficient transportation solutions (or reward us if we do).

Strengths: A solid transportation infrastructure to build on

Long Island's infrastructure improvements build upon an existing roadway network, an extensive transit system, and several regional airports.

Long Island benefits from being home to the largest commuter railroad in the United States, the Long Island Rail Road (LIRR), which is operated by the Metropolitan Transit Authority (MTA). Predominantly focused on providing access to New York City, the LIRR carries 282,358 customers each weekday on 713 daily trains. The system comprises 700 miles of track on 11 different branches, stretching 120 miles from Montauk—on the eastern tip of Long Island—to Penn Station in the heart of Manhattan, and Atlantic Terminal in Brooklyn.

MTA Long Island Bus provides service in Nassau and western Suffolk Counties, and is the nation's largest suburban bus provider, serving 100,000 daily riders. LI Bus operates a public transit bus system and a parallel "para-transit" system (Able-Ride) for eligible customers, linking together communities. The bus system has developed around the commuter railroad, bringing commuters to rail stations and

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expanding to serve other key destinations. Long Island Bus has routes that serve all Long Island Rail Road stations in Nassau, along with several malls, colleges, museums and beaches. LI Bus service is complemented by Suffolk County Transit (SCT), a public transit bus system consisting of 50 bus lines. The bus system is County owned, planned, and managed, but operated by privately owned companies under contract with Suffolk County.

A 2010 New York State Study found that Long Island's airports were economic engines for the region.[6] Long Island MacArthur Airport (LIMA) hosts terminals for Southwest Airlines and U.S. Airways Express, connecting the region to major destinations across the country. The entrance to MacArthur Airport is less than four miles from the Ronkonkoma Train Station and if the north side of the airport is expanded, it will be adjacent to the train Station. Owned and operated by the Town of Islip, the airport has recently undergone a significant expansion to improve efficiency and comfort. Several smaller community airports also provide ready access to air transportation:

- Republic Airport (Farmingdale), a business-oriented airport that accommodates charter and larger jet traffic, located along the NY Route 110 Business Corridor;
- Brookhaven Calabro Airport (Shirley), which mainly takes in single-and twin-engine planes and is home to several fixed-based operators that offer additional services, including tie-down pads, T-hangars and conventional hangars, as well as aircraft refueling and flight instruction.
- Francis S. Gabreski Airport (Westhampton Beach), a general aviation facility with two fixed-based operators and a 9,000 foot runway (one of the New York area's longest after JFK International) to accommodate aircraft of any size. Gabreski also is home to a 58-acreairport development district (APDD), referred to as the Hamptons Business and Technology Park. Rechler Equities has a 40-year lease for 50 acres of the park to develop commercial, industrial, hotel, and possible film studio uses. An industrial park with over 430,000 square feet of space is planned for construction in 2012, and will be connected to the on-site sewer system.
- Enterprise Park at Calverton, the former Grumman facility, which hosts a 10,000-foot runway used by businesses located in the surrounding business park;
- East Hampton Airport and Montauk Airport, two smaller airports on the East End.

Airport	Total Jobs	Annual Earnings	Annual Economic Activity
MacArthur	6,085	$229,179,700	$577,016,600
Republic	1,384	$78,025,500	$214,144,300
Calabro	101	$6,925,200	$16,174,500
Gabreski	1,359	$67,232,500	$121,598,300
East Hampton	91	$5,812,800	$12,605,100
Montauk	7	$371,100	$876,500

[6] https://www.nysdot.gov/divisions/operating/opdm/aviation/repository/NYS%20Economic%20Study%202010%20Exec%20Summary%20Report-Final.pdf.

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Weaknesses: Traffic and transit systems no longer adequate to meet resident and commuter needs

Long Island suffers from extreme traffic congestion, and faces challenges in providing alternatives to car transportation. The average Nassau and Suffolk County motorists travels 35 and 40 miles per day, respectively, exceeding the statewide average. The design of Long Island's roadways and parking does not easily accommodate pedestrian- and bike-oriented development, as per New York State's new "Complete Streets" standards. Poor and inconsistent walkability in many areas contributes to overdependence on cars and contributes to congestion.

The transit system is also inadequate to the needs of today's residents and commuters, providing easy access to Manhattan but limited north-south service. There is a pronounced need to maintain and expand the availability of connecting services, including north-south oriented bus rapid transit service, to link LIRR stations with various Long Island destinations. Walkable communities will be less attractive to young workers – and provide less true accessibility for the elderly – if their mobility is constrained by poor transit options at the regional scale. In many communities, inadequate North-South service has cut workers off from job opportunities and worsened economic inequality. If the region wants to utilize rail as a way to get people off the roads, expanded and improved north-south bus or multimodal surface transit service is critical.

Improvements are also needed to ensure the quality of the services that do exist. The LIRR's Main Line consists of a single electrified at-grade track between Farmingdale and Ronkonkoma, with few passing sidings. The total length of the corridor is 17.9 miles, with single track segments totaling 12.6 miles. This magnifies the effects of service interruption and greatly compromises on-time performance.

There are significant unmet needs to accommodate both cars and buses at LIRR stations. At Long Island's busiest train stations (such as Ronkonkoma), there is a need not only to maintain but expand the current supply of commuter parking spaces. construct new intermodal facilities (e.g., parking structures with street-level bus bays), and facilitate connections between bus and rail. With the economic downturn, it has been a challenge for Long Island municipalities to maintain existing levels of bus service on Long Island.

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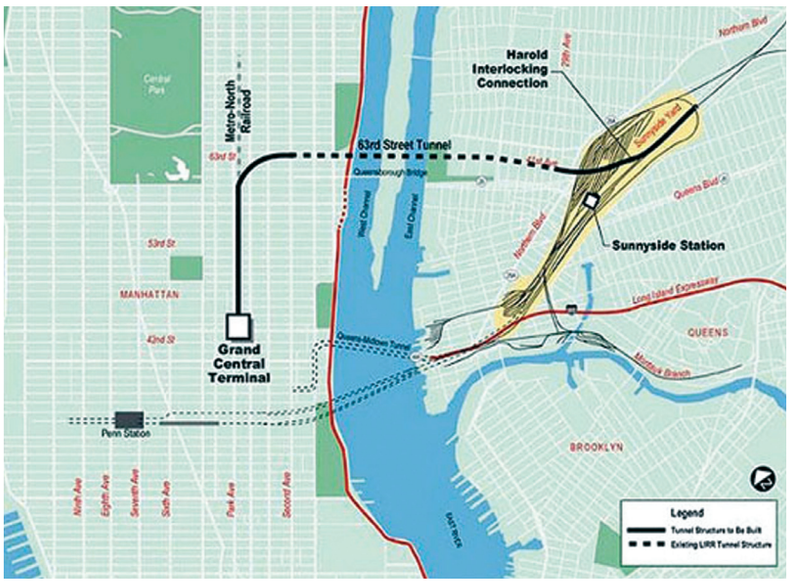
Finally, Long Island's rail system and roadway network lack the freight capacity needed to fuel economic development. More than 98 percent of the goods coming on to Long Island travel via truck – generating congestion and air pollution. Each day, over 434 million tons of freight move into, through and out of New York Metropolitan Council (NYMTC) region (Long Island, New York City, Westchester, Putnam, and Rockland counties).[7] By 2030, this volume is expected to increase by 85 percent.[8] Over 80 percent of all freight in the tri-state region is transported via truck.[9] Yet, the Long Island Expressway is the only east-west highway open to trucks serving Nassau and Suffolk Counties, and point-to-point road travel is hampered by traffic. Freight trains also face congestion, as they must share publicly-owned and intensively-used passenger rail lines. The result is a higher price for goods and services.

Opportunities: Plans for rail expansion and major traffic improvements

The LIRR is readying the railroad for a monumental new network expansion – East Side Access service to Grand Central Terminal. The East Side Access project will connect the Long Island Rail Road's Main and Port Washington lines in Queens to a new terminal beneath Grand Central Terminal in Manhattan. The new connection will increase the Long Island Rail Road's capacity, dramatically shorten travel time for Long Island and eastern Queens commuters traveling to the east side of Manhattan, and provide a new commuter rail station in Sunnyside, Queens.[10] It will also encourage reverse commuting between NYC and Long Island. ESA service does not simply mean that existing trains will be re-routed to Grand Central, rather it represents an entirely new service operation, with a huge increase in the number of trains operated across Long Island each day. ESA service initiation is anticipated on or before April 2018. This is the LIRR's first network expansion in over a century.



ESA can serve as a catalyst for economic growth and revitalization in Long Island downtowns – encouraging further investment in all communities. It can also stimulate the creation of new transit-oriented developments. ESA will also strengthen Long Island's ability to attract tourists and reap economic benefits associated with increased tourism by providing commuter rail access between

[7] http://www.nymtc.org/project/freight_planning/freight_index.html.
[8] http://www.nymtc.org/project/freight_planning/freight_index.html.
[9] http://www.nymtc.org/project/freight_planning/freight_index.html.
[10] http://www.nymtc.org/rtp/documents/CHAPTER/0_NYMTC_RTP_ExecSummary.pdf.

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densely-developed, affluent Manhattan communities and Long Island's beaches, wineries, colleges and other attractions. It will make LIRR service more attractive for commuters working on Long Island who currently commute to work by car, thus improving regional air quality and lessening traffic congestion.

ESA will truly transform Long Island, and has the potential to benefit all of Long Island communities, particularly if a north-south rapid connection between the LIRR main lines supports a complete public transportation commute to ESA from any point within an intermodal network. Innovations in bus rapid transit systems and intermodal hubs can maximize transit investment and make transit more sustainable in the long run. Rapid transit systems provide functional gains to the commuter experience that support commuter buy-in and a shift away from car dependency.

The Nassau Hub offers another opportunity to integrate thoughtful multi-use development into the transportation infrastructure. Enhanced connectivity via public transportation will help the Hub realize its potential, while promoting transit services that can reduce our regional car dependency and increase buy-in for environmentally beneficial change. Diverse foot traffic will support sustainable prosperity for the Hub to retain its high profile as a true Hub of regional significance and landmark stature.

There is renewed interest in freight intermodal facilities, and several sites could serve this function. The 28-acre existing Brookhaven Rail Terminal (BRT) on Sills Road near the Long Island Expressway presents an opportunity for freight transit on Long Island. The BRT is expected to receive and ship at least 500,000 tons of construction material and commodities each year, relieving truck congestion and thereby promoting economic development. There is also potential for expansion at the BRT, with an expectation that the facility will handle a million tons of goods per year by 2016. Each rail car that transports freight on Long Island can remove four tractor trailers from our already over-burdened highway system. In Riverhead, the Enterprise Park at Calverton has begun to attract new industrial users due to its rail spur which has recently been rehabilitated (ARRA- and NYS-funded $4M project) after 30 years of dormancy. NYMTC has identified this site as the region's most ideal location for development of a freight village that would greatly enhance the site's visibility for manufacturing and distribution operations involving large volumes of product that would benefit from freight rail.

There is tremendous economic development opportunity at Long Island's airports. Investments in this area of the transportation system have the potential to help improve the health of local economies and the state as a whole.

Threats and Consequences of Inaction:

Lack of transit may degrade quality of life, especially for young workers

East Side Access project and development around train stations will exacerbate the existing need for new parking around the train stations. At many LIRR stations along the Main Line, Babylon and Port Washington Branches, there is a pronounced need to expand parking availability, particularly at some of the busiest LIRR stations. Again, there is a need to integrate LIRR into a complete transit system with north-south connectivity; otherwise, East Side Access may disproportionately favor North Shore communities.

Bus service also faces an uncertain future. Since 1973, MTA Long Island Bus has provided service on behalf of Nassau County under a lease and operating agreement. That agreement made MTA responsible for grade communities' quality of life, particularly in aging communities.

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Failing to provide adequate transit options will make it difficult to retain young workers who either cannot afford a car or prefer to live a car-free lifestyle. More generally, inadequate transportation infrastructure costs commuters and businesses time and productivity. High transportation costs divert resources from our local businesses. The combined safety and environmental impacts of fragmented, auto-dependent, poorly-engineered pedestrian environments increase accidents, increase indirect taxpayer costs, and generally degrade communities' quality of life, particularly in aging communities.

CRITICAL ISSUE #4: Creating Affordable Housing

When Long Island's Levittown offered its first homes for sale in 1947, it was a place where young, returning veterans – at least whites - could buy affordable homes to raise their families. Today, the Island's housing stock is aging, its population is aging, and its homes are far less affordable. Research has shown that young people and low-to-moderate income workers face particularly heavy housing burdens. There is also a growing preference for condo/townhouse development within walkable communities, even though little existing housing fits this description. The region urgently needs more affordable, multi-family, and transit-accessible housing stock if it hopes to meet shifting consumer demand.

New housing opportunities will not only keep our young, educated population from moving away, but will create immediate construction and long-term employment opportunities. Jobs in food services, wholesale and retail trade, health and education services, and business and professional services support the ongoing consumer activity of households occupying new affordable housing units.[11] The construction of 100 multi-family affordable units creates 80 jobs through new construction (both directly and indirectly), 42 induced jobs supported by new spending of locally earned wages, and 30 jobs supported by the households who occupy these new homes.[12] Affordable housing also attracts new employers and opportunities for job creation.[13]

[11] New York State Association for Affordable Housing Fact Sheet.
[12] New York State Association for Affordable Housing Fact Sheet.
[13] In a national survey of more than 300 companies found, 55 percent reported that was not sufficient affordable housing near their workplaces (New York State Association for Affordable Housing Fact Sheet).

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Strengths: Experienced affordable-housing developers and advocates

Long Island is home to established, high-capacity organizations, most notably the Long Island Housing Partnership and the Community Development Corporation of Long Island, which have initiated valuable programs that encourage the construction of affordable and multi-family housing. Groups such as the Long Island Progressive Coalition and the Long Island Index have educated the public about how their neighborhood and region benefit from affordable, rental, and transit-oriented housing development.

The multi-family housing that does exist is an asset to local residents, communities, and local governments. A recent report commissioned by the Long Island Housing Partnership found that out of 300 housing complexes studied, almost two-thirds were tax positive. (http://huntingtonhousingcoalition.org/uploaddir/Report-on-Multifamily-Housing.pdf)

Weaknesses: High cost of living, paucity of housing options

Although Long Island added 79,000 residents during the last decade, our population grew older.[14] U.S. Census data shows that the 20-34 year old population on Long Island decreased from 2000-2010, while the 55 and over population increased. As Long Island's population ages, it becomes more important to attract and retain young workers. Yet, many young people cannot afford the high cost of living in an area that also has some of the highest real estate tax rates and energy costs in the country.

But the problem of affordability is not confined to young workers. Between 2000 and 2007, the number of households spending more than 35 percent of their income on housing increased from 27 percent to 37 percent.[15] The strain is especially pronounced for families earning less than 80 percent of median family income. According to the Department of Housing and Urban Development Comprehensive Housing Affordability Strategy, 40 percent of households in this group pay more than 50 percent of their incomes on housing.

The paucity of rental housing drives up rents and exacerbates the affordability problem. This is partly a legacy of Long Island's earlier patterns of housing construction; single-family homes, mostly built before 1980, now constitute 83 percent of the region's housing stock. But consumer demand has changed: a recent Long Island Index Study found that one-third of Long Islanders want to live in a condo or townhouse and 40 percent say they would like to live in a walkable downtown community. Nevertheless, some communities and local governments still resist new affordable housing construction, for fear that it (or its residents) will negatively affect local "quality of life". This resistance often reflects deep regional histories of class and race segregation. In case of affordable housing construction, long-standing inequalities and prejudices directly and starkly hamper economic development.

Given the region's high energy costs, the energy-inefficiency of Long Island's housing stock stretches household budgets still further, for both renters and owners. Although there are public-sector incentives for retrofitting owner-occupied units, rental housing developers lack the support that they need to produce units that are both affordable and "green".

While the housing crisis and the recent recession have reduced median home values in many parts of the region, they have delivered little real affordability. Those homeowners who bought before the crash are saddled with unaffordable (and seldom-modified) loans; 11 percent of Long Island's homeowners are at

[14] Long Island Association Annual Business Factbook, 2011.
[15] https://www.rpa.org/pdf/LI2035_Visioning_Initiative_Report.pdf.

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least three months delinquent in their payments, and may face the threat of foreclosure. Without ready access to affordable rental housing, these families may be forced to leave the area.

Communities with high concentrations of foreclosed properties (including Islip, Brentwood, Hempstead, and Uniondale) also suffer, as the foreclosure process often leaves homes vacant for extended periods. Un- and underemployment prevent many from taking advantage of low prices, while those who do have stable incomes and down payments often find it difficult to secure financing in the present lending environment.

Opportunities: Burgeoning support for affordable housing

The 2000s saw growing recognition of affordable housing's importance among Long Island's private, public non-profit, and civil society sectors. More recently, there have been new efforts at coordination in the field of affordable housing. Three of the Island's major non-profit housing developers – the Community Development Corporation of Long Island (CDCLI), Long Island Housing Partnership (LIHP) the Kimmel Housing Development Foundation (KHDF) – have partnered with the Long Island Community Foundation and others in a task force that is studying affordable housing needs on Long Island and working toward a coordinated housing strategy.

The development of regionally significant projects and the revitalization of Long Island downtowns provide potential sites for housing that meets urgent regional needs. Growing demand for downtown living may help convince local governments and developers that denser, rental development will be profitable and enhance the community's quality of life.

Declining housing prices and vacant, bank-owned real estate may offer opportunities to make existing single family homes more affordable and sustainable. Millions in federal neighborhood stabilization program funds have been used by developers to purchase, rehab and then either rent or sell foreclosed properties as a strategy to remove blight from low-income communities across the island. Many communities have recently formed or are exploring community land trusts or other legal means of maintaining affordability in perpetuity.

Threats and Consequences of Inaction: Without affordable housing, job creation is jeopardized

If the region does not focus on improving the affordability and desirability of its housing stock, it stands to lose the labor force and industries that it needs to recapture its dynamism. Failure to produce affordable housing will deter new workers and businesses from moving to the region, while imposing added housing burdens and labor costs for those who remain.

Unless we address current and emergent regional housing needs, it may be difficult to sustain job creation. If employment growth puts further pressure on the regional housing supply, a return to rising prices may strangle our recovery in its earliest stages. We must therefore plan an affordable housing strategy that can be sustained in the long term.

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CRITICAL ISSUE #5: Fostering Coordination and Cooperation among Fragmentation

Long Island's historical fragmentation has produ
a patchwork of town governments, vill
governments, and special districts. The overlapp
and duplicative nature of Long Island governa
creates inefficiencies, direct problems of coordinati
and regulatory inconsistencies that discourage
obstruct new development and business creati
More generally, local-level zoning has produced
uncoordinated and haphazard development patte
which is, at its worst, has resulted in a sprawl
landscape of strip malls and subdivisions that l
a sense of place. A 2011 survey of 44 Long Isl
municipalities found that many of them had
updated their zoning codes in 10 years.[16] New
updated zoning codes are needed to accommodate
revitalization of downtowns, redevelopment of bligh
properties, and multi-family, mixed-use developme

Strengths: Strategic planning through IDAs

Elected officials and local planners have begun to recognize the challenges facing our built-out region, and to see the possibilities for channeling development towards transit hubs and downtowns. Many are starting to plan strategically and developing special zoning categories to accommodate regionally significant projects.

Long Island is also home to eight Industrial Development Agencies (IDAs). IDAs are charged with the acquisition, construction, reconstruction, and equipping of commercial and industrial facilities. They have the authority to issue tax-exempt and taxable bonds and notes and can grant property tax abatements, mortgage recording tax exemptions, and full sales tax exemptions for qualified applicants. IDA projects are financed by investors, financial institutions, or in some cases, the U.S. Small Business Administration. Projects are evaluated based on job creation and/or retention and capital improvements that will be made.

Fees from local IDAs fund other economic development activities for the local governments they serve, including industrial parks operations, small business incubators, infrastructure development, business marketing, and workforce development. Without local IDAs, these services would have to be paid for by the local taxpayer or not be provided. IDAs have created or retained thousands of jobs on Long Island, streamlined otherwise complex and time-consuming municipal approvals for new and/or expanding businesses, and collaborated on regional initiatives and practices through the Long Island Association's IDA Coalition.

[16] http://www.longislandindex.org/fileadmin/Reports_and_Maps/2011_Index/Getting_it_Done_2011_LI_Index_Special_Analysis.pdf.

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Weaknesses: Fragmented government yields fragmented planning

Locally-controlled zoning discourages the revitalization of downtowns and commercial centers. It may take years for a large, regionally significant project to win final approval, if it does at all. Without the guarantees of an expeditious process, developers face uncertainly for even regionally significant projects. Further complicating matters, no two municipalities on Long Island have the same land-use approval process.

Long Island's byzantine governmental structure, with over 700 separate taxing entities and overlapping layers of service delivery, aggravates the problem. Counties, towns, villages and cities all spend significant amounts on public safety, sanitation, and transportation.[17] This not only makes the government approval process even more cumbersome, but contributes to the high cost of living on Long Island – per capita local government costs exceed the state average by 26 percent.[18]

Opportunities: Simple projects can lead to substantial collaboration

There is some "low-hanging fruit" which could mitigate fragmentation's worst effects. Joint purchasing agreements and shared service partnerships would reduce cost, and by extension, the local tax burden. These types of collaboration could lay the foundation for more ambitious initiatives, such as service centralization and coordinated planning at the regional level, enabling economies of scale and encouraging development.

Threats and Consequences of Inaction: Regionally significant projects may languish

Fragmentation makes government expensive and inefficient for residents and cumbersome for regional businesses and developers who try to work across jurisdictions. If governments do not work together, streamlining the approval process and changing zoning practices, their inaction will thwart progress on many regionally significant projects.

Budget cuts may create opportunities to advocate for greater cooperation and even consolidation between duplicative service districts. On the other hand, austerity may lead to heightened competition for tax base, fiscal zoning, and fears that regionalism will cost localities resources that they cannot afford to lose in an era of austerity.

[17] Long Island Strategies for 2035 Report.

[18] http://www.nyslocalgov.org/pdf/Long_Island_Local_Govt.pdf.

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- INFRASTRUCTURE STRATEGIES -

To develop the infrastructure essential to Long Island's growth for the next generation, we need to implement four broad and comprehensive strategies: **• Revitalize downtowns and commercial centers; • Repair and upgrade aging infrastructure; • Create new housing opportunities; • Promote new government policies to foster economic growth**

REVITALIZE DOWNTOWNS, BLIGHTED AREAS & COMMERCIAL CENTERS

Long Island should create downtowns that are centers of economic activity and provide the community with a pedestrian-oriented sense of place--and an attractive place for young people to live, work and play. Community participation in planning efforts is a key element in successful downtown revitalization. Government needs to take the lead in driving the revitalization process and work with community stakeholders and shareholders alike to build consensus for less rigid, more flexible land-use policies.

Specific strategies for revitalizing downtowns and commercial centers include:

- Government should provide incentives to stimulate the redevelopment of vacant, abandoned, blighted properties
- Support the development of walkable/bikable redevelopment at Nassau Hub that leverages local assets to maximize transportation connections, economic dynamism, and living-wage job opportunities for surrounding communities.
- Plan for transit-oriented development and downtown revitalization, particularly near LIRR stations and near new transit centers
    - ⇨ Zone for mixed-use development (see below)
    - ⇨ Orient buildings towards the street, and improve façades and streetscapes
    - ⇨ Improve wastewater treatment capacity
    - ⇨ Construct structured parking facilities and shared parking
    - ⇨ Design for pedestrians and bicyclists, incorporating traffic calming elements
    - ⇨ Use public spaces like plazas to create a "main street" feel
    - ⇨ Coordinate with law enforcement to improve local safety, security and quality of life,
    - ⇨ while maximizing access to public spaces for a broad range of users
    - ⇨ Encourage green construction

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REPAIR AND UPGRADE AGING INFRASTRUCTURE

Upgrading our wide-ranging infrastructure to ensure economic growth requires a multi-faceted strategy to improve our sewer systems, outdated transportation and transit systems, and underdeveloped local airports.

Develop and repair sewer infrastructure

- Upgrade and expand regional wastewater treatment facilities to meet future capacity and improve treatment and energy efficiency. Priority should be given to sewer infrastructure that will stimulate redevelopment projects and transit-oriented developments and revitalize downtowns and economically distressed communities. The sewer infrastructure project should result in the creation of jobs and the construction of affordable and mixed use housing. When sewers are constructed, efforts should be made to utilize sustainable, low-energy usage, and lower cost alternatives.

- Expand Sewer Infrastructure in Suffolk County. In order for the County to grow in a sustainable way, sewer infrastructure is needed at the following locations: Ronkonkoma Hub, Mastic/Shirley Peninsula, Coram, Southwest Sewer District (West Islip, North Babylon, West Babylon, Wyandanch, and Deer Park, Bergen Point Sewage Treatment Plant Outfall Pipe), District 6 (Smithtown/Kings Park downtowns), District 1 (Port Jefferson), Sag Harbor Sewer District, Patchogue Sewer District, Bellport, Sayville, Middle Island, Yaphank, Southampton, Mattituck, Center Moriches, Flanders/Riverside, Riverhead.

- Upgrade Sewer Infrastructure in Nassau County. Nassau County's sewage treatment plants are in need of serious capital repairs in order to continue to meet the needs of communities. One of the most important capital expenditures is the construction of an ocean outfall pipe at Bay Park Sewage Treatment Plant, which will contribute to the health of Reynolds Channel and the Great South Bay. Nassau's sewer lines are decades old and hinder redevelopment in downtowns. If sewer lines in Nassau's downtowns are repaired and upgraded to increase capacity, they will support downtown revitalization.

Build a LIRR second track from Farmingdale to Ronkonkoma

Construction of a full second track on the LIRR Main Line etween Farmingdale and Ronkonkoma would be a tremendous advantage for revitalization efforts around the future Republic Hub, Wyandanch Rising, and the Ronkonkoma Hub. It will also greatly improve the access and reliability of connections to MacArthur Airport and can expand the role of the Ronkonkoma LIRR station as an airport gateway, further stimulating economic development in the area.

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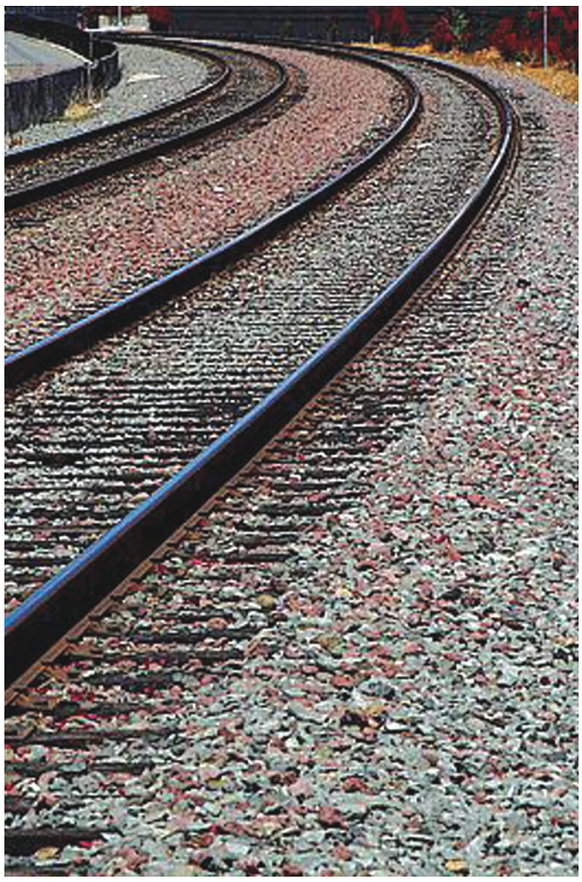
Improvements would include associated traction power infrastructure, including third rail; a new south platform at Wyandanch Station; new north and south platforms and station building at Pinelawn station; signal upgrades/modifications as required; retaining walls and earth work; right of way clearing as necessary; new switches / crossovers / interlocking; modified grade crossings to accommodate second track; and drainage improvements (i.e culverts, ditches) as required.



Construct a new Republic Station

The LIRR envisions constructing a new Republic Hub Station after the double track is constructed to serve the Route 110 corridor in western Suffolk County. The Route 110 Corridor is the largest employment center in Suffolk County, with almost 20 percent of Suffolk County's workforce employed in this area. A new Republic Station would play a key role in increasing rail access to Long Island MacArthur Airport. The reopening of this station would also play a critical role is supporting the proposed Bus Rapid Transit (BRT) service on Route 110; which would establish the first north-south mass transit connection on Long Island.

Devise LIRR parking solutions

In order to accommodate future transit-oriented developments around LIRR stations, new parking structures will be needed to free up land currently occupied by surface parking. The ideal solution is to establish intermodal facilities at selected LIRR stations, providing commuter parking and sheltered bus bays adjacent to the train station. Many LIRR stations have connecting bus service, which frequently is challenging and even dangerous to access because of busy nearby roadways and local traffic patterns. An intermodal facility is a central location where local residents, employees, and visitors can conveniently access and/or transfer between several different modes of transportation. Intermodal facilities will serve communities by providing more travel opportunities and encouraging economic development in downtown districts.

Develop bus/multimodal rapid transit

Bus Rapid Transit could serve as a solution to providing transit on north-south corridors not served by the Long Island Rail Road.

- Support and expand existing bus/multimodal transit options, particularly to maximize access to emergent job centers and revitalizing downtowns.
- Encourage transit use to minimize the impact of congestion and air pollution in the short run, and of greenhouse gas emissions in the long run.
- Develop Hub transportation that reduces use of autos.

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Generate new freight opportunities

Long Island needs to improve the physical infrastructure of the transportation system for freight-related transport between shipping and receiving points. Strategies to increase freight access and options include:

- Rail freight intermodal terminals to link the nation's rail freight system and relieve truck congestion.
- Freight villages, a fusion of land use and transportation planning to cluster freight-dependent companies around a concentration of shared transportation infrastructure. Freight villages can generate an entirely new market for small- and mid-sized businesses to reduce transportation costs, relieve truck congestion on regional and local road ways, and improve air quality.

Tap into the economic potential at Long Island's Airports

- Attract more commercial carriers to MacArthur Airport and develop the north side of the airport to provide better access to the Ronkonkoma Rail Road Station.
- Build a sewage treatment plant to serve the Ronkonkoma Hub to expand Long Island MacArthur Airport and connect it to a transit-oriented development.
- Develop the underdeveloped west side of Long Island MacArthur Airport.
- Tie Long Island's airports to regionally significant projects to heighten economic potential.
- Attract businesses to locate near Long Island's airports to leverage economic activity and attract fixed-based operators to locate on or near Long Island's airports.
- Brand, market, and promote Long Island's airports.

CREATE NEW HOUSING OPPORTUNITIES

Create new, affordable housing for young people, empty-nesters, and low-income households

Long Island needs to build new affordable, rental, and multi-family housing for youth, empty-nesters, and low-income households. Government needs to also work with members of the community to build consensus for affordable rental housing . Affordable housing projects are economic engines in their own right, leveraging public and private dollars. These new housing opportunities should:

- Create multi-family rental housing opportunities at varying levels of affordability (below 120 percent, 80 percent, and 50 percent AMI).
- Site and affirmatively market new housing to provide access to new living-wage jobs and reduce racial segregation.

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- Develop for-sale homes that are affordable to households with incomes near or below AMI.
- Support affordability tools such as land trusts and limited-equity cooperatives, that preserve affordability in the long term.
- Provide a range of housing opportunities in downtowns and around train stations, including larger (e.g., 3-bedroom) units.
- Commit to the siting and construction of multifamily rental buildings in scale with the surrounding community.
- Require energy conservation, specifically include solar where feasible, in all new affordable housing.
- Link clean energy, environmental and housing funding sources in order to provide for the initial increase in design/construction costs needed to incorporate solar and other "green building" elements in multi-unit affordable buildings.

Maintain and support existing housing programs

Beyond developing new housing, there are many other strategies currently used by Community Development Corporation of Long Island, the Long Island Housing Partnership, the Kimmel Housing Foundation, and other non-profits and local municipalities. They address critical housing and related social equity needs, and we believe need to be continued. These include:

- Providing opportunities for down payment assistance for first time buyers.
- Pre-purchase homeownership education.
- Grants and loans to homeowners needing health and safety repairs to their dwelling, as well as energy efficiency improvements.
- Employer-assisted housing, which helps employers recruit and retain workers in a high-cost area and provides down payment and rehab assistance to homebuyers.
- Siting and affirmatively marketing new housing to provide access to opportunities, such as quality education, and reduce racial segregation.
- Foreclosure prevention services.
- Handicapped accessibility.
- Purchase, rehabilitation, and disposition of foreclosed houses that are blighting neighborhoods.
- The 72-H program, which transfers properties in tax default for the development of affordable housing.
- Providing education and awareness about fair housing.

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PROMOTE NEW GOVERNMENT POLICIES TO FOSTER ECONOMIC GROWTH

- **Streamline approval process**
  Governments should make efforts to "cut the red tape" and increase transparency in the land-use approval process. An example is the newly launched Suffolk Unified Permit Portal, a multi-year effort to create an online process for development applications that provides transparency and accountability for land use across Suffolk's 43 municipalities. Town Planning Departments can also look to reorganize their departments to give priority to regionally significant and transformative projects.

- **Innovate new zoning codes**
  In order to facilitate and accommodate redevelopment of downtowns and large, mixed-use regionally significant projects around train stations, governments should develop new zoning codes such as form-based zoning or planned development districts that encourage redevelopment of community centers. Innovative zoning codes should encourage the efficient use of land, be a catalyst for revitalization, and foster a sense of place.

- **Update zoning codes to:**
  - Discourage segregated zoning and strip malls.
  - Create land use and street design guidelines to promote walking and cycling.
  - Ensure that guidelines for the improvement of existing streets and the development of new streets encourage multi-modal road networks.
  - Encourage diverse housing types and demographics.

- **Foster inter-municipal cooperation**
  Many regionally significant projects cross municipal boundaries. If these projects are to succeed, municipalities should think regionally from the early stages. Inter-municipal cooperation is critical to securing funding for projects and ensuring a smooth approval process.

- **Support Industrial Development Agencies**
  Local IDAs are the most efficient and effective economic development program available to local governments. They are often self-sufficient and the average statewide cost per job created for projects they assist is $2,400. The role of IDAs in helping to create and maintain jobs in their communities is much greater than just serving as a conduit financing vehicle for the project. IDAs are the lead economic development agency of a county, town, or city, and serve as the nexus between the public and private sectors on economic development activities. IDAs have played and should continue to play a central role in the development of our economy, while engaging with local governments and encouraging the participation of community stakeholders.

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- NATURAL ASSETS -

"There is tremendous opportunity to expand agriculture, fisheries, and tourism via strategic investment…"

Natural assets are a key component of the economic development of Long Island. While most of the Island is in some way developed, the success of the region depends on sound management of its natural resources, particularly ground water, near-shore environments, and natural habitat. Indeed, the outcome of any economic plan relies on maintaining and improving the region's rich natural assets-the waterways, waterfront, beaches, and agricultural landscapes that make Long Island truly unique. Of particular significance is the natural capital of the East End. On Long Island, there are approximately 2,500 people employed in agriculture and fishing related industries, with cash receipts totally more than $240 million annually. There is tremendous opportunity to expand agriculture, fisheries, and tourism via strategic investment within the economic development plan.

There are three critical issues associated with natural assets on Long Island: Sustainable Agriculture, Fisheries and Aquaculture, and Ecotourism and Tourism Infrastructure.

CRITICAL ISSUE #1: Transitioning from Traditional to Sustainable Agriculture

While sustainable agriculture is present and strong on the island, it needs greater support in order to transform conventional agriculture into more sustainable practices and to transport produce to communities in need of fresh produce.

Strengths: A legacy of successful specialized farming

Long Island has a long tradition of agricultural activity that is currently in transition. Most of the agricultural activity is in Suffolk County. In 2007, Nassau County had 59 farms with 1,288 acres under production. The average farm size was 22 acres, although most of the farms were less than 10 acres in size. In contrast, Suffolk County had 585 farms with an average size of 59 acres. While most of the farms are quite small (less than 10 acres), several are rather large with two farms over 1,000 acres in size.

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Regardless, agricultural activity on the Island, characterized by farms with greater specialization and direct market appeal, is different from that in most other areas of the state. For example, Suffolk County ranks 15th of all counties in the U.S. by sod production. It also leads the state in producing ducks and aquaculture products, and ranks second in chicken production. And it ranks 1st in the state in the value of crops sold.

The agricultural character of the region is unique. Due to the nature of local tourism, weekend travel, and the strong "locavore" movement on the Island, Suffolk County is perceived as a leader in wine production and market and truck farming. (Market farming is the growing of vegetables for local markets and truck farming is growing of vegetables for non-local markets.) This perception is largely true, as Suffolk ranks third in the state in grape production and seventh in harvested vegetables for sale. When combined with local seafood and poultry, it is evident that we have a unique locavore region of particular interest to agro-tourism. Vineyards attract 1.2 million annual visitors, who spend $90 million during their visits and $33.3 million directly at wineries.

According to the USDA, organic farming has been one of the fastest growing segments of U.S. agriculture for over a decade. According to the Organic Trade Association's 2011 Organic Industry Survey, U.S. sales of organic food and beverages have grown from $1 billion in 1990 to $26.7 billion in 2010. Sales in 2010 represented 7.7% growth over 2009 sales.

Long Island's organic farming sector and local food communities appear to be growing rapidly, there are numerous indicators of rapid growth. In the past 5 years, Long Islanders have established a number of family-owned and non-profit organic farms, many farmers markets, several wineries that have implemented sustainable practices, numerous small-scale food processing businesses, and community gardens. In addition, there is support for a community-supported fishery model.

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Equine activities provide economic benefits due to the historic significance of horse racing, polo, and other equestrian activities and competitions. Likewise, Long Island's dozens of high-quality golf courses and golf championships are important for local and international tourism.

Weaknesses: Many efforts are needed to maintain economic viability

For agriculture to remain and expand as a principal regional economic driver, several needs have to be addressed: infrastructure for commercial production; a central meat processing facility; environmental stewardship; farmland preservation; increased accessibility to fresh, locally grown produce; development and training of new farmers; public education; financial risk indemnity; marketing and serious reconsideration of critical policies and regulations.

Opportunities: Targeted investment can overcome current limits

Long Island is uniquely poised to take advantage of a growing interest in local and sustainable food sources and agricultural activities. This opportunity is due to its long history in niche agricultural markets such as ducks, wine, sod, market and truck farming, and horses. Indeed, agricultural activities are increasing on the Island, as is the value of crops raised. While the success of agricultural activities is currently limited, agricultural investment can transform the region. Creating community gardens and farmers markets to help remediate food equity issues could boost support for and investment in agriculture in our region.

Threats and Consequences of Inaction: Suburban encroachment affects farming's future

Failure to invest in this economic activity will affect the long-term success of agriculture on Long Island. There is great threat to farmers from suburban encroachment and NIMBY attitudes. Sometimes this conflict leads to zoning and permitting issues for farmers, vintners, and those involved with agro-tourism. In addition, there are conflicts between larger farm operations and smaller farmers that could be mitigated through a holistic approach to sustainable agricultural development. The development of projects to address these and other issues will greatly enhance the likelihood of success of agriculture into the future.

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CRITICAL ISSUE #2: Preserving Fisheries & Aquaculture

Long Island is home to commercial and sport fishing industries and many world-class events associated with its marine setting. It is especially known for its sailing, surfing, and fishing competitions and expositions. Fisheries, both commercial and recreational, and aquaculture are important economic activities on Long Island, but there are regulatory limitations to their overall success. There needs to be greater infrastructure development for fisheries, better marketing of Long Island seafood, and expansion of bay scallop fisheries.

Strengths: A solid base of fishing-related industries

In 2009, New York State Fisheries landed over 34 million pounds of finfish, shellfish and crustaceans, with a value of $49.3 million, 99 percent of which occurs in Nassau and Suffolk counties. With a standard economic multiplier of 4.5, this translates into a regional economic value of close to $220 million annually. State fisheries support thousands of jobs and hundreds of Long Island businesses. Fishing-related industries are a hybrid of local service, resource- dependent and traded industries. They act as an economic driver through exporting of fishery products to New York City and the world. With targeted economic development support, this impact will grow and become sustainable. One particular fishery, bay scallops, has tremendous opportunities for enhancement via aquaculture. Bay scallops grow rapidly, allowing for marketing of a live product within 12 months.

Weaknesses: Challenges from pollution and competition

The commercial fishing industry fragmentation is threatened by water pollution, competition, and a lack of infrastructure that supports getting products to multiple markets locally and regionally. Bay scallops in particular have declined since 1980, leaving a void in the Northeast seafood markets.

Opportunities: Help from marine organizations to support strong brand identity

Key marine research organizations on Long Island can assist with rebuilding damaged ecosystems and conducting research on aquaculture. In addition, enhancing Long Island's extensive transportation and marine infrastructure can better prepare the region to accommodate growth in this area. Finally, there are opportunities to market Long Island seafood in order to brand its identity more effectively. Opportunities also exist to develop aquaculture to support bay scallop production in the region as there is a growing demand. With over 5,000 restaurants in the northeast serving bivalves, Long Island has tremendous potential to sell its seafood.

Threats and Consequence of Inaction: Lack of investment, regulation could lead to decline

Failure to invest in marine fisheries can result in declining or stagnant marine production. It will be difficult to grow the fisheries without investment in infrastructure to get seafood to market. In addition, failure to invest in the development of aquaculture and habitat protection and restoration will limit the ability of Long Island's fisheries to compete.

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One regulatory threat to the scallop industry relates to the production of 1-2 inch diameter shell scallops used in appetizers. Currently, surrounding states provide a regulatory exemption to market this size scallop during any season of the year. Indeed, these states ship these scallops to New York restaurants in what is believed to be a $3 million industry. Presently New York has a minimum legal size of 2.25 inches, which is too big for the in-shell market. NYSDEC has been hesitant to allow this exemption because the agency wants to prevent poaching of wild scallops that are below minimum legal size, an activity that in surrounding states is effectively prevented through conservation law enforcement. New York harvesters need a level market—to have the same regulations as their competitors from surrounding states—by allowing culturists to market a smaller scallop during any season. Since this product is in-shell and intended as an appetizer it will not compete with wild harvest product.

CRITICAL ISSUE #3: Expanding Infrastructure for Ecotourism and Tourism

With its abundant natural beauty, Long Island is well situated to take advantage of the public's desire for eco-tourism. However, there is a lack of infrastructure, information, marketing and coordination that limits the potential for overall tourism development.

Strengths: An abundance of beauty, tourism and recreational activities

Long Island has an abundance of natural beauty. Its shorelines have long been destinations for tourists and the interior natural landscapes are home to significant natural habitat. In 2010, the Trust for Public Land (TPL) issued a report, commissioned by the Long Island Community Foundation and the Rauch Foundation, entitled, "The Economic Benefits and Fiscal Impact of Parks and Open Space in Nassau and Suffolk Counties, New York." The report was groundbreaking in that it established the principle that Long Island's parklands and open spaces serve as a "significant driver" to Long Island's economy, and not as a drain on fiscal resources, as some might have maintained. The study noted:

"Long Island's parks and open space are a regional treasure. Its 1,180 miles of shoreline and 60,000 acres of trails, gardens, farmlands, woodlands, waterways, day camps, ball fields, and playgrounds provide us with recreation, relaxation, beauty, peace, and wonder.

Long Islanders have always valued these resources but usually as intangible assets. Their material, economic benefits have gone unexamined and largely overlooked. We typically - but uncritically - think of open space as a sort of luxury, for which we have agreed to pay a rather handsome price…

The study… quantifies for the first time the fiscal impacts of parks and open space over a wide range of activity. It identifies direct economic benefits to the region amounting to $2.74 billion per year, in areas ranging from boosting tourism and reducing government costs to improving air quality and public health."

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Open space also captures precipitation or slows its runoff, thereby reducing storm water management costs by $23.9 million annually. Trees and shrubs remove air pollution control costs by $18.9 million annually. Over 600,000 people engage in physical activities in parks, generating health benefits of $164 million annually. The TPL study made it very clear that Long Island's "natural capital," which includes both its living and non-living elements, makes a positive and substantial contribution, on an annual basis, to our regional economy and quality of life. In addition, partnering with agro-tourism concerns will enhance eco-tourism opportunities. Also, dozens of diverse museums, sports facilities, conference centers, lodging establishments and performing arts venues round out the Island's ability to provide tourism opportunities. Its rich heritage as an early site of American colonization and its role in key phases of American history also lends itself to heritage tourism.

Most important, Long Island is the second most popular tourist destination in New York State after New York City, with travelers spending over $4.6 billion in our region in 2010. This spending was distributed as 41 percent in Food, Beverage & Lodging, 26 percent in Transportation and the remainder amongst Retail, Service Stations, Recreation and Second Homes. Traveler spending is relatively evenly divided between Nassau and Suffolk. Overall, tourism supports more than 70,000 jobs or 5.9 percent of all jobs on Long Island and is responsible for generating nearly $600 million in state and local tax dollars. Based on a 4.3 economic multiplier, 2010's Tourism spending had a phenomenal $19.7 billion economic impact on Long Island.

Weaknesses: Limited public access to some notable natural areas

Currently, there are limited, localized and discrete opportunities to access and observe some of Long Island's more ecologically significant areas or prominent wildlife and plant resources. Unfortunately, these receive limited advance publicity that tends to emphasize enhancement of public awareness and appreciation for these resources more than targeting and marketing to non-residential participants. Long Island has a wealth of unique and noteworthy natural assets. If properly highlighted and if access opportunities to them were improved, non-Long Islanders would appreciate and visit them more often – and bring more revenues into the region. Overall there is a lack of public transportation, access, funding to maintain infrastructure, comfort stations, and overall awareness and marketing of general tourism and ecotourism opportunities.

Opportunities: Growing recognition of ecotourism

Public awareness of sustainability has increased, as has the desire to participate in healthy outdoor activities. In addition, in the current economic downturn, low-cost activities – such as hiking, biking, and kayaking – are in greater demand. These activities also are softer on the environment. Long Island is uniquely poised to carry the banner as the leader in ecotourism in the New York metropolitan region, a reputation that would bring us tourists from throughout the metropolitan region and beyond. But investments need to be made in order to be a credible player in this economic enterprise.

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Threats and Consequences of Inaction: **Declining tourism if environmental issues not addressed**

Long Island is not the only location in the northeast with abundant natural beauty. While few regions are capitalizing on ecotourism opportunities, it is only a matter of time before one region takes leadership on the issue. Long Island should be the first and best in this economic activity, given its combination of natural amenities and cultural attractions.

Currently, the Island is the home to some of the best beaches in the country. Serious consideration must be given to a sustained program of protection and replenishment of these priceless natural attractions. If our beaches continue to fall victim to storm damage and erosion, the tourism industry on Long Island along with its jobs, revenues and tax contributions will surely suffer. Many environmental threats to the maintenance of Long Island's natural beauty, especially water quality, also should be noted. Runoff and groundwater pollution quality must be maintained and improved in order to ensure that we have healthy environments for people to enjoy and appreciate. We must preserve and protect our harbors, bays, and beaches.

From a policy perspective, it is important to restore and enhance the Environmental Protection Fund. In addition, there should be a New York State Uniform Enabling Authority for local governments to create community investment funding that would allow votes for investments in land conservation, parks, and community purposes without seeking Albany's approval every time. In addition, a program to map and collect data regarding Long Island's natural resource base will help manage and guide decision making.

Protecting natural assets suggests that the region should promote investments in clean energy, incentivize consistency among jurisdictions for zoning and land use regulations, and promote sustainable growth including in-fill and mixed-use development, multi-modal transportation access, reduced energy use, investment in existing infrastructure, increased housing opportunities, and protection of natural resources.

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- NATURAL ASSETS STRATEGIES -

We have identified three main strategies and components to maximize the economic benefits as well as preserve Long Island's extraordinary natural assets: Improving sustainable agriculture enterprises; improving the economic potential and employment opportunities of sustainable marine fisheries; and enhancing ecotourism and tourism infrastructure.

- **Improve Sustainable Agriculture Enterprises**

  In recent years, there has been a growing interest world-wide on sustainable agriculture and the concomitant locavore movement. Long Island is uniquely poised to become an international leader in this area through the development of key projects. There is tremendous expertise on the East End of the Island with many consumers interested in sustainable and local food on the New York Metro region and beyond. There are a number of strategies that can improve the situation for those interested or engaged in agricultural development:

  - ⇨ Enhance environmental stewardship on the Island in order to reduce the impacts of agricultural pesticide and fertilizer application on ground and surface waters. The adoption of best management practices by farmers will help this effort.
  - ⇨ Market Long Island's agriculture as high-quality in order to enhance retail traffic and visits to local farms and wineries.
  - ⇨ Build a strong agricultural processing center, or enterprise park, that would: 1) allow new farmers to lease small parcels of land for production; 2) provide distribution, cooling, and storage of produce; 3) allow meat processing; 4) provide educational and outreach programs on best management strategies; and 5) provide a mobile farmers market to ship "grown on Long Island" food to local farmers markets.
  - ⇨ Develop tools and programs that keep farmland affordable, in the face of intense development pressure, escalating real estate values, a decline in food production farming, and a scarcity of new and startup farmers. Farmers, now and in the future, face complicated issues of farmland accessibility, affordability, and sustainability. These issues threaten the viability of the agricultural industry in general and the security of our food supply systems on Long Island. Economic trends over the past 20 years have had a negative impact on the availability of agricultural land and the business of farming on Long Island, making it increasingly more difficult for new and established farmers. We must reverse this trend if we hope to maintain vitality within the sector.

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- **Improve the Economic Potential and Employment Opportunities of Fisheries & Aquaculture**
  While fisheries in New York support thousands of jobs, there are several strategies that can improve fishery production.
  - ⇨ Continue to improve water quality on the Island. In recent years, there have been tremendous strides in water quality improvement and these must continue.
  - ⇨ Expand some sectors of the fisheries industry, particularly in the development of bay scallop fisheries by producing greater number of production of greater numbers of scallops to be used for planting via private/public partnerships with local shellfisheries, collection of scallop larvae from natural populations via spat collectors, concentrated large-scale plantings of scallops in Flanders Bay, which is currently under-producing, and the creation of a private culture industry for bay scallops that would produce scallops on the half-shell for use in NYC restaurants.
  - ⇨ Develop and improve fisheries infrastructure on Long Island. Unfortunately, deteriorating conditions caused the relocation of some operations to move to other states. Thus, there is a need for a challenge grant initiative to provide funding support on a leverage basis, for land-based industry projects through a competitive process that would address local infrastructure needs such as dock improvement, dredging, and improved facilities.
  - ⇨ Similar to, and perhaps in partnership with, the proposed agricultural marketing initiative above, market Long Island seafood as quality products produced by local fishermen and women. In fact, Long Island should be marketed as the gold standard in conservation: good for the fish, the fishermen, and their communities.
- **Enhancing Ecotourism Activities and Infrastructure**
  Ecotourism in Long Island could focus upon the region's many parks, trails, and preserves. Particular opportunities are in ecotourism and agritourism:
  - ⇨ Improve and repair tourism infrastructure, particularly comfort stations, trails, trail maps/descriptions, and online information (which should be coordinated and easily available).
  - ⇨ Preserve and protect natural landscapes in order to sustain the long-term success of ecotourism enterprises.
  - ⇨ Protect and replenish beaches in order to be a draw for tourists.
  - ⇨ Market Long Island as an agri- and ecotourism destination. Given our miles of beaches and accessible shorelines and parks, the tourism sector can be improved through marketing and outreach.

As noted above, protecting natural assets suggests that the region also should promote investments in clean energy; incentivize consistency among jurisdictions for zoning and land use regulations; and promote sustainable growth, including in-fill and mixed-use development, multi-modal transportation access, reduced energy use, investment in existing infrastructure, increased housing opportunities, and protection of natural resources.

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- WORKFORCE AND EDUCATION -

Long Island's economic success starts with the talents and entrepreneurial energy of its workers. A skilled, stable, and educated workforce attracts new investment, retains existing businesses, and perhaps most important, provides the know-how necessary to spur innovation and entrepreneurship. The region's commitment to education and workforce development, particularly in the STEM areas—Science, Technology, Engineering, and Mathematics—will be critical if we are to seize the opportunities in growth sectors, such as green energy and the life sciences. Our STEM focus also will strengthen our information technology and advanced manufacturing sectors, which are essential to both nascent and established industry clusters.

We face two critical issues—both difficult challenges.

First, most of our high school and college graduates lack the necessary skills and qualifications for high-demand, high-wage occupations. In many cases, this skills gap has forced employers into a peculiar dilemma, seeking talent from outside the region to overcome labor shortages, even as Long Island experiences a rising level of unemployment. Skills gaps impede the development of start-ups and small businesses that employ the majority of Long Island's workers, according to the Long Island Association, the region's largest business group.

Second, we face the challenge of ensuring that economic development benefits all of the region's communities and workers. That's why the LIREDC considers it extremely important to insure that potential minority and women business owners, as well as rank-and-file employees, receive the education and training they need to succeed. We believe that their success becomes the region's success. To realize the plan's vision of making education a path towards community revitalization, we must ameliorate the educational inequalities that have long balkanized the region. Long-term strides, such as restructuring of our racially segregated and unequal public school system, will likely require state assistance, but we have identified some steps that can be taken today to move us toward bridging the skills gap.

We also need to consider early childhood education as an economic imperative, giving children a better chance to succeed in school and their parents the ability to work more hours and with fewer concerns. Only through the close collaboration within and across public, private, and non-profit sectors will we engage all workers to their fullest potential and launch an era of vigorous and equitable prosperity.

CRITICAL ISSUE #1: Bridging the Skills Gap

Recent studies by Long Island Forum for Technology (LIFT) and Connect Long Island – a consortium of the region's three Workforce Investment Boards, the New York State Department of Labor, Empire State Development Corporation and others – have shown a large and potentially growing gap between the skills of the workforce and those required for positions as IT professionals, nurses, and engineers.[19] Department of Labor representatives in the Workforce and Education Work Group report that many high-wage positions on Long Island remain unfilled for want of qualified and educated applicants. By bridging the skills gap, we will meet the needs of both employers and the local job-seekers, particularly if Long Island hopes to retain its college graduates.

[19] 13N study.

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Strengths: A strong educational infrastructure

Our current educational system includes many well-regarded educational institutions at the K-12, college, and postgraduate levels. At the secondary school level, 26 of Long Island's high schools appear in Newsweek's 2011 list of America's (Top 500) Best High Schools. Individual students excel as well: a remarkable sixty-one of the Intel Science Scholarship's 300 semi-finalists come from Long Island, including 8 of the 41 finalists and 2 "Best in Category" winners. Our overall graduation rate and test scores consistently exceed the rest of the state.

We also are home to 19 diverse institutions of higher learning, ranging from small private colleges to research universities. Some (Stony Brook University, Farmingdale State College, New York Institute of Technology) are dedicated primarily or extensively to the STEM disciplines. Others offer strong programs in the STEM disciplines or are in the process of doing so. Hofstra University, for example, has recently launched a new medical school and college of engineering, while Suffolk Community College has provided new job pathways by offering "stackable" certificates for in-demand careers. Local universities, cutting-edge businesses, and world-famous research centers, such as Cold Spring Harbor Laboratory and Brookhaven National Laboratory, attract the brightest minds from all over the planet. Together with our strong educational infrastructure, this has produced high rates of educational attainment.

The region also builds upon its workforce system and partnerships, which include the Local Workforce Investment Boards (LWIBs), the Long Island Works Coalition, and LIFT. In 2007, the LWIBs and LIFT launched Connect Long Island, a partnership that has since grown to include Long Island leaders in government, education, and industry.

Weaknesses: Graduates not choosing STEM careers

Despite the overall strength of our educational system, not enough of Long Island's workers are interested—or capable—of taking positions in the growing STEM sectors. Highly educated young adults tend not to major in these areas. And even if they were, the education and training curricula are not meeting the demands of evolving career paths: STEM skill sets are not fully integrated into K-12 education, particularly in communities of color.

At the level of higher education, LIFT analysis shows that only 3 percent of education majors are focusing on STEM (though these specializations accounted for 10 percent of demand). Less than 5 percent of bachelor's and master's degrees granted by Long Island colleges and universities are in engineering and other technical fields. A similarly small percentage of associate degrees are granted in these fields. In the 2009 skills gap report by LIFT and the LWIBs, the five-year need for engineers was projected to be more than 7,000, far below the demand by existing industries in the region. As universities attempt to expand their programs in these fields, they are hampered by the state's slow curriculum approval process, and by a general lack of coordination among institutions of higher education. Finally, the absence of worker training – often slashed in an era of shrinking resources – has limited opportunities for the advancement of mid-level workers into higher-level positions.

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Opportunities: Wide-ranging educational collaborations

This is the moment for the region to think creatively about new collaborations between established research centers, colleges and universities, K-12 schools and emerging industries. These collaborations would provide a variety of workforce and education opportunities, including retraining, apprenticeship, and internship opportunities. Guidance counselors could play a critical role by helping high school students make well-informed post-secondary choices that will build upon their interests and skills while keeping job availability in mind.

In the field of high-tech manufacturing (composites) and wireless technologies, the region could capitalize on the Center for Excellence in Wireless and Information Technology. In the biotechnology field, there is potential for new synergies between Cold Spring Harbor, Brookhaven National Laboratory, North Shore/LIJ, Broad Hollow Bioscience Park, Stony Brook University, Feinstein Institute, Hofstra Medical School, and private research companies throughout the region.

There is an imminent opportunity to become a center of green and energy efficiency technology development, building upon the foundation of the Advanced Energy Research and Technology Center. Energy research is currently conducted at local universities such as Stony Brook, NYIT, Hofstra, NY Polytechnic University and Farmingdale State College. Farmingdale State College is in the final stages of submitting a Bachelors Degree in Renewable Energy, and has partnered with Suffolk County Community College in a 2/2 agreement that allows undergraduates to begin their college work at SCCC and transfer to FSC after two years.

New green industries on Long Island would meet a local demand for the energy-efficiency retrofitting of residences, businesses, and institutions, a demand that will be further amplified by recent government and public utility incentives. Smart electrical grid technology, underway through a federally funded demonstration project with LIPA as the lead agency, promises to make the region a pioneer in this area. Apart from job creation, new investments in green technology sectors will support New York's renewable energy goals. The Long Island Green Homes Consortium has made great strides in creating demand for a newly emerging industry focused on energy retrofits for housing and commercial buildings. Many of the critical challenges and opportunities for saving energy and creating green jobs are articulated in the Suffolk County Energy Efficiency Task Force report.

One potential "green" catalyst is the NYSERDA Cleaner, Greener Communities Regional Sustainability Planning Program. The Long Island Green Homes Consortium of towns and organizations is coordinating the development of a regional sustainability plan that will include participation of communities throughout Long Island. This plan will be a resource in the implementation of the Long Island Regional Planning Council's Sustainable Strategies for Long Island 2035. The plan will provide Long Island an opportunity to develop its vision, goals and objectives for a sustainable future and help identify the activities and types of projects needed to achieve carbon reductions, energy efficiency savings and renewable energy deployment. The plan will be consistent with the Long Island Regional Development Council's Strategic Plan and will leverage other sustainable planning initiatives undertaken by the communities as well as ICLEI's Long Island Carbon Footprint Project.

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Threats and Consequences of Inaction: **Economic growth in jeopardy**

In the face of fiscal austerity, Long Island's exceptional education system will struggle to maintain its leadership position and meet the demands of business and industry. It will be challenging to build educational collaborations in the present economic environment, and it may become more so during the coming year.

As the region's workforce continues to age, many companies do not have the workers and skills that they need to thrive in the 21st century. Retaining workers is difficult due to our high cost-of-living, scarce affordable housing, and the absence of an integrated public transportation structure. Recruiting workers from outside the region, on the other hand, raises costs. These factors may stymie business attraction, retention, and creation. Without planning and action, our talent pipeline will not prepare enough students and job-seekers for in-demand careers and ultimately, Long Island's economic future will be at stake.

CRITICAL ISSUE #2: Ensuring Prosperity for All

Growth only produces true economic development when all share in increased job access, educational opportunity and community benefits. Long Island's communities include residents and workers from diverse racial and ethnic backgrounds, with varied skill sets and qualifications, and a wide range of affluence. These differences often follow local jurisdictional boundaries that have historically concentrated economic resources in certain communities. During the public participation process and work group meetings, several participants urged the council to invest in disadvantaged communities and their residents.

We must think carefully about how all of our communities will benefit from economic growth. Equity begins with education: Every school must have the resources to prepare their students – including students from low-income households – for the next step on educational pathways that lead to high-quality, living-wage jobs.

Quality education begins in early childhood. Numerous studies show that investments in early childhood education, with an emphasis on learning, yield tremendous long-term benefits for the children, their families and the economy. To maximize their benefits, these services need to be delivered by licensed and well-trained child care professionals, in appropriate settings. Children who experience early education overwhelmingly perform better as they move to higher grades. And early childhood centers – including daycare - allow parents to make their fullest contribution to the Long Island workforce: They will not have to worry about whether their children have a safe and stimulating environment during the day. Overall, effective K-12 education develops student skills, provides guidance and support for varied career pathways, and enables each student to participate fully in the civic, political, and economic life of the region.

Our concern for equity in opportunity does not end at graduation. While our high-tech industries and highly-educated workforce may drive growth in important traded industries, we must also develop a broad range of opportunities for workers at various points in their career and educational trajectories. These opportunities should include supporting new business start-ups for minority and women owned businesses and in communities of color. In so doing, we will enable Long Island's workers to contribute to their fullest potential, while sharing the rewards of growth.

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Strengths: Diverse demographics provides a deeper talent pool

Long Island's diversity is itself a strength, deepening our knowledge pool and often linking us to international networks that we have only begun to tap. By reducing educational disparities and segregation, the region can create new synergies across socioeconomic boundaries. Efforts to guarantee a broad prosperity will draw upon its workforce system and on a range of education and advocacy initiatives.

The region's local Workforce Investment Boards perform a critical strategic function in identifying and meeting workforce needs. The five Long Island One-Stop Career Centers serve approximately 90,000 jobseekers and 1,200 businesses annually, and collaborate with the New York State Department of Labor (NYSDOL) to provide Rapid Response Services for those displaced by plant closings and massive layoffs. The Workforce Investment Boards are a focal point where partnerships are convened to prepare grant applications for the benefit of the region.

Several local civic and social justice organizations have turned their attention to improving the resources and quality of education provided in traditionally under-resourced school districts. The three Boards of Cooperative Educational Services (BOCES) supply educational services across the region, and along with organizations like the Long Island Index, play an important role in analyzing trends and opportunities for policy reform. Within some districts, parents, teachers, and superintendents have used limited resources creatively and have become forceful advocates for their schools in the process. Brookhaven National Laboratory has provided opportunities for students and teachers in underserved school districts through its innovative K-12 programming, serving approximately 35,000 students annually.

Weaknesses: Fragmentation leads to unequal opportunities

Government fragmentation has posed an enduring challenge to Long Island's educational system, as it has severely limited the budgets of poorer districts. Since many of the most challenged districts are not commonly recognized as "at risk," the size of the problem is often underestimated. At the same time, many successful initiatives go unrecognized when they could be used as models for success in other districts. Local tax politics and fears surrounding school integration impede movements toward even modest forms of cooperation or redistribution, let alone consolidation.

Students from poor districts may join the ranks of un- and underemployed workers, a group that also includes a significant number of adults who need basic literacy training. Unemployment is particularly high among African American workers on Long Island.[20] In an era of stagnation and continued layoffs in sectors such as manufacturing, job-seekers with less extensive education and training struggle to secure employment. New high-quality jobs often require skills and qualifications that are beyond their reach, at least in the short term. Often, these jobs are physically distant from communities of color and inaccessible by public transportation, and workers may encounter barriers such as racial discrimination in the hiring process. Entry-level non-union service jobs, on the other hand, seldom provide security, opportunities for advancement, health insurance, or self-sufficiency wages.

[20] American Community Survey, 2010 SF1 file.

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Opportunities: **Expanding industries for immigrants and the underserved**

The development of green and other new technologies, along with the retention and attraction of new manufacturing enterprises, offers an opportunity for area educational institutions and workforce systems to provide equitable access for historically underserved students and workers. Further, the continuing expansion of the region's health care sector opens new jobs for graduates at every level with the required skills and capabilities. This process has already begun in earnest within institutions of higher education, as evidenced by this spring's well-attended STEM Diversity Summit at Farmingdale State College.

The fiscal challenges facing many local school districts may present opportunities to examine rationalization of services and coordination across jurisdictions.

Our proximity to a global city and our growing proportions of immigrant students, as well as minorities in underserved communities, will provide opportunities for education through cultural exchange. We have the cultural competence to forge broad-based networks, in the New York City metro area and globally, that could produce tremendous opportunities in export industries. But we must be open and attentive to these opportunities as they arise. Promoting multi-lingualism, as a Long Island foreign trade group has suggested, will prepare our students to take advantage of these opportunities, while also enhancing community cohesion. At the K-12 level, we must prioritize both ESL and foreign language instruction to maximize multi-lingualism for both first-language and non-first-language English speakers. Foreign language instruction must expand beyond the Romance Languages to include a broader range of languages, including those in rapidly developing economies.

There are several opportunities to merge the goals of economic development and multilingualism creatively within higher education. Advanced language instruction may enhance college-level internship programs and provide greater opportunities for graduates to compete within internationalized job markets. Additionally, foreign students at the college level may be able to assist in the task of introducing Long Island's K-12 public school students to their cultures, thus developing multicultural sensitivity and multilingual fluency of Long Island's students.

Threats and Consequences of Inaction: **A deepening division between communities**

Just as funding cuts make it difficult to bridge skills gaps, so may they exacerbate disparities between school districts and communities, in the absence of coordination or consolidation. In addition, the regional workforce training and development system is showing signs of financial strain. Even as an unprecedented number of workers draw upon job-search and retraining assistance, WIBs have seen their federal funding fall by 12 percent.

If these cuts weaken Long Island's educational and workforce systems, already disadvantaged students and workers could be left further behind. The worsening of existing disparities would feed occupational and residential segregation by race and class, deepening the divisions between communities. New job creation and new wealth must not be limited to the affluent and advantaged areas of the Island. Any economic development that exacerbates, rather than reduces, inequality will represent a regional failure.

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- WORKFORCE AND EDUCATION STRATEGIES -

To achieve a sustainable economy that fosters transformative community revitalization, we must systematically invest in education and workforce development. All industry clusters rely upon the collaborative efforts of the workforce system, Pre-K-16 education, specialized training (including internships and apprenticeships), and advanced education to provide opportunities that support career pathways.

Youth, emerging workers, employed professionals, underemployed and transitional workers need resources to maintain their knowledge and adapt their skills in a changing job market.

At the same time, we must ensure job quality even for workers without extensive formal education or training, while supplying opportunities for continuing education at multiple skill levels.

This will require strategies tailored to specific growth industries; general strategies for education and workforce development, and specific projects capable of achieving concrete outcomes (detailed later in Transformative Projects section of this report).

STRATEGIES FOR GROWTH SECTORS

These strategies are designed to ensure that our workforce meets the needs of key (and overlapping) industry clusters in the region:

- **Science, Technology, Engineering, and Mathematics (STEM)**
  - Build and sustain interest in STEM disciplines among Pre-K-12 students.
  - Increase college degree production in STEM disciplines (facilitated by streamlining curriculum approval – see implementation.
  - Forge partnerships between industry, research institutes, business, government, schools and universities, non-profits, and organized labor to provide job pathways in STEM.
- **Advanced manufacturing / information technology**
  - Strategize job creation by recognizing that advanced manufacturing and IT cross-cut other industry sectors, and that local production/IT enterprises reduce input costs and multiply growth.
  - Achieve IT "literacy for all" that supports the workforce at various skill tiers.
  - Identify and pursue emerging opportunities to 're-shore' manufacturing jobs.

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- **Healthcare/Life Sciences**
  - ⇨ Improve the skill sets of the advanced workforce across the health care professions, including registered nurses, medical technologists, and physician's assistants.
  - ⇨ Provide training and credentialing for home health and nurse's aides to meet the needs of the region's rapidly aging population.
- **Green technologies**
  - ⇨ Educate and re-train workers to integrate green technologies into new construction and to support the development of green retrofitting enterprises.
  - ⇨ Support the shift to local renewable energy sources, including smart grid for the region, and develop education and training programs to meet new workforce needs.

GENERAL STRATEGIES

These strategies will be integrated into the specific strategies above, while also guiding economic development outside key sectors to ensure growth benefits to all Long Islanders:

- Continue to engage a range of K-12 stakeholders – businesses, colleges, teachers, parents, and principals – in discussions about skill creation, educational/career pathways, and emerging growth sectors.
- Provide support services, incubators, and skills development for new businesses in all communities, including disadvantaged, building networks that link them with large and fast-growing businesses.
- Create partnerships between sectors to improve educational outcomes, close skills gaps, mitigate funding disparities, and foster cooperation between school districts.
- Encourage collaborative relationships among property owners, businesses, school districts and not-for-profits to develop resources to provide quality, affordable childhood education, particularly on-site daycare and training for service providers.
- Develop in-service training or professional development opportunities for high school guidance/career counselors, along with a mix of paid internships and registered apprenticeships that offer opportunities for skill development before and after career choice.

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HOW WE GET THERE:

THE IMPLEMENTATION PLAN

The Long Island Regional Economic Development Council recognizes that our five-year Strategic Plan is an organic document that will need care and attention to assure the future growth of our economy. As such, we are committed to an ongoing process of engagement, including with the public, to ensure the implementation of those transformative projects that we have selected as most significant to our success.

OUR "GAME-CHANGING" TRANSFORMATIVE PROJECTS

The ESD Long Island received 44 applications for transformative projects, representing a wide range of industries and institutions, many of them collaborating. The total budgets of the 44 projects came to nearly $23 billion, with some 65,000 jobs created or retained. ESD also has logged more than 240 smaller projects submitted through the Consolidated Funding Application. What follows are more detailed summaries of the 13 transformative proposals – our "game-changers" -- that we recommend for funding immediately. These projects promised the highest return on investment, scored highly on criteria developed by the LIREDC, addressed multiple regional objectives, and best supported the implementation of our job creation strategies. In important ways, they are the implementation agenda – the engines that drive our strategic plan from a report on paper to real jobs.

INVESTMENTS IN AN INNOVATION ECONOMY

Smarter Electric Grid 3: A Stony Brook University-BrookhavenNational Lab collaboration to establish Long Island as a national center for energy research, development and manufacturing – a Silicon Valley of Smart Grid"– bringing added regional benefits of lower power costs, improved research capacity and training for high-tech students. Formally known as "Smarter Electric Grid Research, Innovation, Development, Demonstration, Deployment Center" or SGRD3, it will operate out of a new facility to be built at BNL (AEGIS), and the Advanced Energy Research and Technology Center (AERTC) at SBU that will be augmented by construction of a new Smart Grid Test and Validation Facility. The new facilities and their focused research and development work on smart grid technologies will be supported by leading-edge science and technology facilities and programs already underway at the two institutions and will leverage the unique array of energy-related organizations and assets in the state.

Leveraging: A $5 million state investment for capital purposes will go toward a total project cost of $90 million.

Job Creation: 914 person-years of construction employment, with $140 million in immediate economic activity and an additional $70.2 million in annual impact; 418 full-time positions in long-term operations. Additionally, the expected 10% power cost savings would create 1,000 new jobs and increase regional

STONY BROOK UNIVERSITY

BROOKHAVEN NATIONAL LABORATORY

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economic activity by $59 million a year. In addition, the SGRID3 center will attract existing businesses and foster new ones focused on smart grid technologies.

Implementation: Smart Grid developments are underway; Test and Validation Facility do not require local land use approvals on state or federal lands; project is expected to be completed 9/30/2015.

ACCELERATELI...

Region-wide initiative unites several major research institutions and other organizations to commercialize discovery and innovation by matching scientists with entrepreneurs and early-stage venture capitalists to bring promising products – to be manufactured here – to market. The not-for-profit partnership includes Brookhaven National Lab, Cold Spring Harbor Lab, Hofstra University, the Feinstein Institute for Biomedical Research, Stony Brook University, CA Technologies, the Long Island Association and Canrock Ventures LLC. Accelerate Long Island will dramatically increase new businesses and exports flowing from the many inventions and discoveries already emerging from our research institutions and keep these ventures and industry clusters, and their high-paying jobs on Long Island. To do so, Accelerate will hire a small, highly-qualified staff to identify technologies that have significant market potential, help to define a commercialization pathway and support institutional ef forts to follow it, and link the embryonic venture with early-stage financing or with existing Long Island companies. Of particular emphasis are jobs in the traded industry sectors of renewable energy and clean/green technology, life sciences, and software/information technology. Particularly significant to this effort is the collaboration with LI STEM endeavors both underway and proposed involving K-12 students in distressed communities. Long Island and the state can ill afford to let its best, most valuable ideas leave the region before we can reap the economic benefits of our educational and research investments.

Leveraging: $500,000 in state funding to match a venture capital investment of $500,000, which will leverage $6.5 million in other funds.

Job Creation: More than 5,000 jobs over the next ten years with considerable indirect benefits.

Implementation: Initiated in 2011, Accelerate LI will achieve measurable results beginning in 2012 including 1) The identification of 30 new technologies at the region's research institutions that have significant market potential and develop into 15 realizable projects; 2) Defined commercialization pathway for 50% of these technologies: 3) Identification of 10 new early-stage venture capital funding sources; 4) Coordination and implementation of three Technology Showcase events annually, building on the three held over a four month period in 2011; 5) Achieve 100% increase in the Long Island Emerging Growth Fund in 2012.

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THOUGHT BOX 1 - HICKSVILLE

A regionally replicable model that brings the Accelerate Long Island concept to a downtown transit hub, with affordable housing, offices, labs, recreation and commercialization services under one roof for fledgling high-tech ventures. The Thought Box is a public-private partnership that merges new ways of thinking about suburban development and industry clusters, with an eye toward young workers. It does so by bringing together investors, mature companies, startups, and technology commercialization assistance to existing buildings in an aging downtown with major rail lines. Thought Box 1 will be a 450,000 sq. ft. integrated commercial/ residential center. It will be designed to provide space primarily for information tech companies, offering the potential for successful startup entrepreneurs to expand without moving. Thought Box 1 will have common areas to encourage informal communication. The identified building offers a fitness center and will have a 200-seat auditorium. The 25 initial housing units will enable companies to attract or retain employees by providing affordable and convenient living spaces in a region where high housing costs impede workforce recruitment. An important feature is its location a half-block from the Hicksville LIRR station, the region's second busiest: a Thought Box 1 employee or resident can be at a Midtown Manhattan client or restaurant or theater in an hour. Hicksville is an increasingly diverse Indian and Asian community offering opportunities to enhance the development of minority entrepreneurs and relationships between Thought Box 1 companies and high school STEM students. A project sponsor, Canrock Ventures, currently offers an internship program involving high school students paired with young companies and discussions have commenced to expand this program for the new Thought Box 1 venture by involving STEM students specifically from disadvantaged community school districts. This project ties together LI's strategies in the innovation industry, workforce and education, and infrastructure areas with the state's Smart Growth, TOD and MWBE objectives.

Leveraging: A state investment of $5 million for construction, toward a total project cost of $161.5 million.

Job Creation: 75 construction and 250 permanent jobs within three years.

Implementation: The investors and developer are prepared to proceed with the project in early 2012.

AMNEAL PHARMACEUTICALS

A major expansion of one of Long Island's largest pharma firms, Amneal Pharmaceuticals, which has 85 drugs approved or in the federal pipeline and requires a larger facility to retain and create "emerging industry" jobs and partnerships with research institutions. Amneal – which is considering lower cost alternative locations for expansion -- has grown rapidly to become the 7th largest U.S. generic drug producer. Some 700 of its 1,200 employees work out of its Long Island headquarters in the Town of Brookhaven. The $60 million expansion would create hundreds of jobs, many of them requiring high-tech research and development skills. The new facilities would allow the firm to introduce an estimated 35 additional drugs. If state incentives result in the project proceeding, Amneal plans to work with the state labor department to hire unemployed Long Islanders. It also promises to form partnerships, as it has in the past, with the region's universities and research institutes, as well as with

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BOCES vocational programs, to train students seeking to enter STEM fields. The project fits well within the vision and several strategies of the LIREDC, which recognizes that biotechnology and pharmaceutical research and its high-paying jobs should be a critical component of our economic future.

Leveraging: $3 million in state funding for capital purposes will leverage $60 million in private investment.

Job Creation: 100 construction and 400 permanent jobs.

Implementation: With state support, Amneal could begin construction by March 2012 and anticipates that the "soft gelatin and potent manufacturing" areas of the expansion project would be completed by April of 2013. Other project components would be completed a year later.

CSHL ADVANCED DRUG TESTING

Cold Spring Harbor Laboratory

A new Cold Spring Harbor Lab facility that will establish the region as a bio-medical research center by raising the testing of cancer drug therapies to a higher level that will transform the way treatments are developed and administered. The project would strengthen and extend relationships between one of the world's most prestigious research institutions and the region's bio-tech and pharmaceutical firms, as well as teaching hospitals and research centers. These are the sorts of sustained, broad-based collaborations necessary to commercialize research in ways that would expand the biotechnology industry cluster, which has been by identified by LIREDC as an important strategy for the region's growth. The 8,000 sq. ft. project, to be built in Woodbury, will be a first-of-its kind advanced testing facility. It will be equipped with new imaging equipment, supported by its own staff, that will actively pinpoint cancer cell vulnerability and allow the more accurate devising of treatments. Recent breakthroughs at CSHL have given rise to optimism that the most deadly cancers can be cured within 5-10 years. The cutting-edge work at the advanced testing facility would be aimed at treating melanoma, leukemia and cancers of the lungs, liver, pancreas, brain, prostate and breast.

Leveraging: State investment of $2 million for capital purposes related to this $90 million project.

Job Creation: 85 construction and 30 permanent jobs.

Implementation: Preliminary design work is underway; capital campaign concluded by June of 2012, building permits acquired by December of 2012; construction commenced by June of 2013; project completed by June of 2014.

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- INVESTMENTS IN REBUILDING LI COMMUNITIES -

WYANDANCH RISING

Continued infrastructure support for a comprehensive redevelopment of Suffolk's poorest community, central to Babylon Town's plan to add jobs, houses, businesses and street beautification, centered on its downtown rail line. A potentially transformative model for other blighted hamlets, Wyandanch Rising is part of a broader regional transportation and sustainable communities plan, connecting the nearly all minority Wyandanch to Long Island's largest jobs hub, the Route 110 Corridor. The effort is not just about new buildings, but people. It includes strategies to increase home ownership, and to retrofit and rehabilitate existing single-family homes with energy-efficient upgrades. Complementing these efforts are employment training programs to provide Wyandanch residents – long cut off from the economic mainstream -- with skills in green jobs.

Leveraging: The proposed $6 million in infrastructure funding for the Plaza component will leverage private and municipal funding of $500 million acquisition and demolition of blighted structures, sewer construction, parking improvements, access roads, and a new mixed-use community constructed by the town's master developer, selected in 2011.

Job Creation: 1,700 construction and 150 permanent jobs.

Implementation: Master developer selected in 2011, all zoning in place, new building design process underway, and bid documents drafted for letting by March of 2012 for the first three buildings, to be completed by September of 2013.

HEMPSTEAD VILLAGE

A massive mixed-use project involving 3,400 new housing units and 700,000 square feet of commercial, entertainment and retail space around the county's busiest multimodal transit center that would generate thousands of jobs in one of Long Island's largest and most distressed communities. This project would be transformative beyond the village by reversing a period of severe disinvestment, declining tax revenues, and long-term community deterioration that translates into some of the county's highest rates of crime, nemployment and illness and lowest levels of educational achievement. The linchpin to this project, however, is the replacement of aged, deteriorated sewer pipes – the focus of this transformative project funding request. The developer also proposes to create opportunities for new or existing minority small business owners and to work with local schools to provide training and jobs for students.

Leveraging: State investment of $5 million in village sewer infrastructure will leverage $2 billion in private investment.

Job Creation: 10,000 construction and 3,400 permanent jobs.

Implementation: If funded, sewer construction can be fast-tracked to begin in 2012. Private sector construction of the comprehensive redevelopment will follow in late 2012 with the first buildings completed by June of 2013, with final build-out by 2018.

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RONKONKOMA-MACARTHUR TRANSIT HUB

ARTIST RENDERING

A rare collaboration between two large towns, Brookhaven and Islip, and Suffolk County to provide the necessary sewage treatment plant that will allow construction of a new transit-oriented, live-work-play destination in a blighted area - and which will strengthen ties between Suffolk's busiest rail station and a regional airport, LI MacArthur. To make this overall $324 million project a reality, a regional sewage treatment plant is needed to allow more density in housing, retail and office space without threatening the environment. The series of projects at the station and in the airport corridor would spur business growth in an area that is critically important to the region's ability to expand exports and imports and become a global business and tourism destination. The creation of a village downtown would transform the blighted area near the station into a vibrant community and meet a regional need for TOD, affordable housing and sustainable neighborhoods. The creation of the village would transform a now blighted area near the station into a live-work-play community and meet a regional need for TOD, affordable housing and vibrant neighborhoods. Its proximity to research institutions suggests it might be especially appealing to younger high-tech workers, and a possible site for an Accelerate Long Island facility, such as Thought Box 1 in Hicksville. The bi-town cooperation would set an important precedent about the need for municipalities, as well as businesses and institutions, to work together to create new wealth. The public private partnershipspecifically aims to create opportunities for minority and women-owned businesses. Plans envision about 800 housing units within a short walk of the station, as well as nearly 50,000 sq. ft. of office and 112,000 sq. ft. of retail and restaurant space. Additional tax revenues for local governments are estimated at about $2.6 million and total job creation at 13,000, including construction during a four year build-out.

Leveraging: State investment of $4 million toward designing map and plan will leverage public sector investment of $31 million (Suffolk County, NYSEFC, EDA) in the sewer plant. The overall $500 million dollar Ronkonkoma-MacArthur redevelopment includes private sector investment of $289 million in Brookhaven portion around the station and $176 million in Islip, which owns MacArthur.

Job Creation: 2,000 construction, 4,000 permanent and 7,000 indirect jobs.

Implementation: Design, map and plan for the sewer project underway with project construction planned by December of 2012. Private developer to be selected by December 2011; Brookhaven's Blight to Light designation provides for expedited review and permitting.

HEARTLAND TOWN SQUARE

ARTIST RENDERING

A proposal to transform the remains of one of the world's largest psychiatric hospitals on 450 acres into a self-contained suburban city in Brentwood, near two highways and a rail station leveraging $3 billion in private investment and generating massive numbers of construction and permanent jobs. Transformative by its magnitude, the development of 9,300 rental units, 1 million sq. ft. of lifestyle retail and hotels, 3 million sq. ft. of office and civic spaces within shuttle distance from a LIRR station will have a huge impact on the region in job creation, tax revenue generation and the achievement of a vibrant, 24/7 community on a blighted parcel that was abandoned by the state in the 1990s.

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Leveraging: State support of $2.5 million for the on-site road improvements component of the project will leverage a $3 billion private sector investment by developer Gerry Wolkoff for a project that will be constructed in phases and will generate economic activity of $8.7 billion.

Job Creation: 13,000 construction and 25,000 permanent jobs; 10,000 of them in the first five years.

Implementation: Once all issues with the Town of Islip are resolved, construction can proceed immediately.

- INVESTMENTS IN OUR NATURAL ASSETS -

EPCAL AGRI-PARK

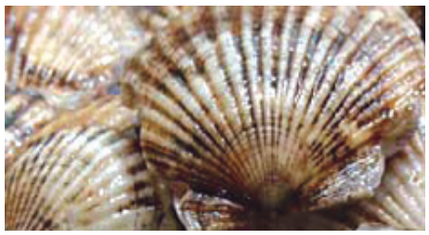
The Long Island Farm Bureau, Cornell Cooperative Extension and other partners will study the feasibility of a state-of-the-art cold storage and distribution cooperative in the heart of our food production region and accessible to rail that would boost profits for farmers, reduce costs for consumers and create a new industry for locally grown food. Timely and proper handling of crops after harvest helps ensure high quality, decreases the potential for safety problems, and ultimately maintains the economic value of the product. Locally-grown meat, duck and turkey is in demand on the East End and in New York City, but the lack of meat processing facilities hampers production. Although vacuum cooling of products, whether greens or sod, increases shelf life and quality, such facilities are extremely expensive to establish or operate on an individual farm. Significantly, the Enterprise Park at Calverton industrial facility is centrally-located to the East End farming community and offers recently-rehabilitated rail available for freight transportation and land for industrial development including refrigerated distribution and food processing. Thus, it will be transformative for the agriculture industry in Suffolk if the state funds a feasibility study to assess the financial viability of both an 80,000-100,000 sq. ft. cold storage and distribution facility and a meat processing facility to be developed by this collaborative as a private sector initiative.

Leveraging: A $500,000 state-funded feasibility study would be matched by in-kind contributions from the agriculture community, LI Farm Bureau, Cornell Cooperative Extension, and the state-funded Stony Brook University Agriculture and Aquaculture Incubator located at the EPCAL site.

Job Creation: 53 construction and 200 permanent jobs.

Implementation: Feasibility study will be initiated immediately.

BAY SCALLOPS RESTORATION



With only 7% of expensive scallops being harvested, a large-scale seeding program will improve the East End industry dramatically, increasing production for the region and New York City's gourmet markets and stimulating both business and job creation. Part of the LIREDC's strategy to boost legacy industries tied to our natural assets, the Peconic Bay Scallops Fisheries/Aquaculture Program is a large-scale effort that will help restore scallop populations and create hundreds of sustainable jobs in harvesting this popular delicacy from the sea beds, selling it in both wholesale and retail markets. Increased scallop exports would be an economic driver for the region. The project would be overseen by Cornell Cooperative Extension, which has extensive experience in the field and staff resources to execute its plan.

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Leveraging: The project requires a $500,000 state investment for scallop seeding as part of a $3.1 million program. State funds will leverage comparable investment by scallop farmers. Suffolk County is also expected to contribute financially.

Job Creation: 50 new permanent jobs.

Implementation: Expanded project can begin immediately and reap full benefits by 2016.

- INVESTMENTS IN OUR WORKFORCE -

EngINE

A public-private partnership between Hofstra and Stony Brook Universities to boost the number of engineering graduates whose skills are essential to meeting our ambitions to be a globally-competitive center of high-tech research and manufacturing. The shortage of engineers in the American workforce is regularly pointed out as a critical impediment to the growth of our economy and a rising threat to our nation's role as the world's leading innovator. This deficiency strikes Long Island with particular force because our regional economy is deeply dependent on the continuing ability of our highly skilled workforce to develop, produce and sell high value added products and services outside the region. As a remedy, Hofstra, with a new School of Engineering and Applied Science, will double its engineering enrollments, and Stony Brook will increase its enrollments by 50%. The result would be a total combined increase of almost 750 engineering graduates in the next five years. This program will pump increasingly more degreed engineers into the regional economy every year, including those trained to aid the emerging biomedical industry cluster, but it also will focus on instilling a desire and identifying opportunities for them to stay on Long Island. A state investment of $2 million would be allocated for laboratory equipment and facility rehabilitation, and for challenge funding for initial faculty hires in the areas of highest regional need. Hofstra and Stony Brook would be required to assume full responsibility for supporting these new faculty members after three years.

Leveraging: A state investment of $2 million, toward a project cost of $60 million, for acquisition of lab equipment, facility rehabilitation, and the addition of faculty. State funds will be used as challenge funding for initial faculty hires in the areas of greatest need. Hofstra and Stony Brook will be required to assume full responsibility for supporting these new faculty members after three years.

Job Creation: 50 construction and seven permanent jobs.

Implementation: 2012-2013 school year.

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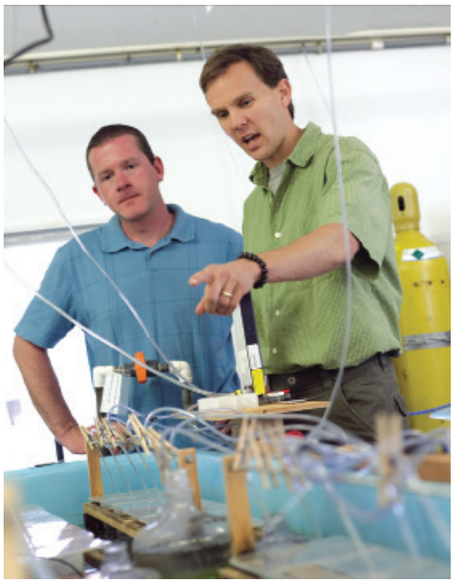
STEM WORKFORCE INNOVATION NETWORK

A visionary network of local agencies, higher education and research institutions, businesses and other not-for-profits that would dramatically improve how Long Island identifies and educates potential high-skilled workers in an increasingly diverse region. The unprecedented, broad-based partnership includes the towns of Hempstead and Oyster Bay, Suffolk County, Suffolk Community College, New York Institute of Technology, Farmingdale State College, Stony Brook University, Long Island Forum for Technology, Long Island Works Coalition, Winthrop University Hospital, North Shore-LIJ Health Systems and Brookhaven Lab. A unique combination of 10 separate proposals, the project will assist in the transformation of the Long Island economy through a dual strategy of worker skill training and entrepreneurial development. It will integrate regional workforce, industry and education assets and implement an aggressive plan for skills training and job creation for an ideal workforce-industry fit. This approach will capitalize on the strengths across Long Island's diverse population to provide opportunities for all residents to gain qualifications for STEM-related jobs, an important LIREDC strategy. The successful Connect Long Island STEM consortium provides the model and will serve in an oversight capacity to ensure state funds proposed for the project meets its specific and overall goals -- increasing and matching skills with businesses to put more competent Long Islanders to work in high-tech fields.



Leveraging: $2.5 million in state funding, toward a $26 million project, for expert workforce training personnel.

Job Creation: 516 permanent jobs.

Implementation: Connect Long Island will commence programs by September of 2012.

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- REGIONAL COUNCIL IMPLEMENTATION AGENDA -

The Council commits to at least the following Implementation Agenda:

- The Council will meet monthly to: assess our adherence to the Strategic Plan; make suggestions for the inclusions of additional Transformative Projects (with or without the opportunity for additional state investment); evaluate projects for CFA funding; be open to additional strategies that may advance our economic agenda.
- The Council will require applicants for Transformative Project funding to make quarterly reports, indicating their progress toward their goals, as indicated in the Implementation Plan, for their particular project. Once selected for funding by New York State, the Council will work with the applicants to create a detailed roadmap of activities necessary for the successful completion of the project. The Council will make judgments on their progress and will reserve the right to declassify a project if the applicant is not adhering to their plan.
- The Working Groups will meet semi-annually to assess progress on the strategies originally developed in the plan and report back to the Council. The Working Groups will also make recommendations to the Council on appropriate changes in the strategies and the Council will make the changes it deems necessary to ensure the Strategic Plan is continually updated.
- The Council will include a public session at all its quarterly meetings to gather input from the public. The Council will encourage the public to post comments on the website and Facebook regarding the implementation of projects and new ideas for future projects to support.
- The Council recognizes that funded CFA projects are critical to the success of our economic development plan. Therefore, the Long Island Regional Empire State Development office will make quarterly reports to the Council on which CFA projects have been funded by New York State and their progress toward implementation. The CFA projects implement specific strategies in our plan and we intend to encourage and support them.
- The Executive Committee of the Regional Council will receive, review and score on a regular basis, projects requiring time-sensitive RC endorsement including ongoing CFAs.

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HOW WE KNOW WE'RE SUCCEEDING:

- PERFORMANCE MEASUREMENT PLAN -

The Regional Council recognizes that it is important for us to continually assess our progress in achieving the desired outcomes articulated in our plan; to acknowledge challenges that exist as we encourage implementation of our regional strategies; and to contend with unanticipated circumstances which may impede our progress. As indicated in our Implementation Agenda, we intend to gather data on all transformative projects on a quarterly basis and evaluate progress at Quarterly Council meetings.

PROJECT SPECIFIC PERFORMANCE MEASURES

Refer to our Implementation Plan for a description of each Transformative Project, including the particular metrics upon which we will measure their outcomes. This Plan serves as the Council's dashboard. Below is a sampling of the project specific metrics:

- Implementation timetable to achieving results on activities that will enable the project to move forward
- The number of construction or short-term jobs to be created
- The number of permanent jobs to be created.
- The leveraging of private and/or federal funds secured for the project
- The number of housing units to be created (or square feet or acreage developed)
- The number of new businesses created, funded, incubated
- The number of sewer treatment plants upgraded or newly created

In addition to the project-specific measurement, the Regional Council intends to gather macro economic data to measure the performance of the regional economy over the five-year timeframe of the Strategic Plan.

MACRO PERFORMANCE MEASURES

The following performance measures will be developed and tracked to ascertain the extent to which plan goals are being met. Not all of these measures will be applicable in any given year.

Tracking the Return on Investments in an Innovation Economy

- Number of jobs created annually in targeted growth sectors, including energy technology, pharmaceuticals, health care and high-value added manufacturing industries.
- Annual wages and wage trends in targeted growth sectors. This metric will track the extent to which Long Island's employment base is moving from lower-wage to higher-wage industries, one of the key plan goals.
- Progress in creating a green energy infrastructure: number of workers trained by training programs in green energy technologies on Long Island.

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Tracking the Return on Investments in Rebuilding Long Island Communities

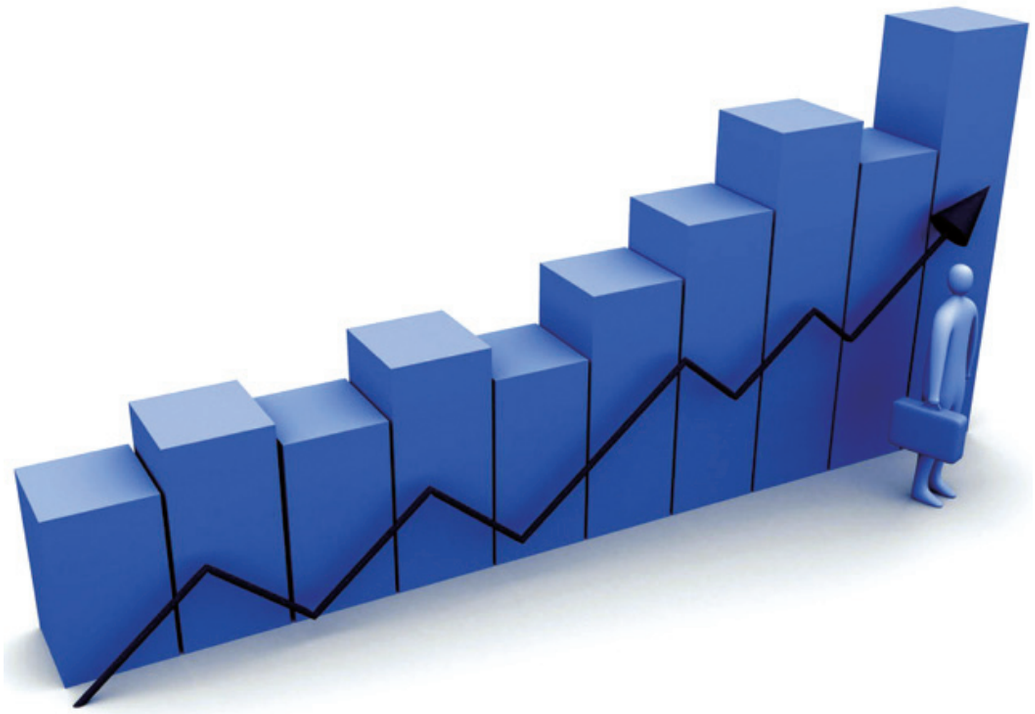
- Progress in planning and/or implementing mixed-used developments and transit-oriented developments throughout Long Island.
- General measures of infrastructure improvements:
  - LIRR track/station improvements; miles of LIRR track laid.
  - Progress in creating rail freight hubs.
  - Progress in Building Affordable Housing.

Tracking the Return on Investments in Long Island's Natural Assets

- Trends in agricultural receipts, production expenses and realized net income.

Tracking the Return on Investments in Long Island's Work Force

- Number of graduates in science, technology, engineering and math at Long Island's two-year and four-year colleges and universities. This metric will track the success of efforts to increase the number of graduates in the STEM disciplines.



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REGULATORY REFORMS

The LIREDC sees Gov. Cuomo's new economic development process as a partnership between the state and our region. And while Long Island is asking the state for funding to help realize its goals, we also could benefit from non-monetary assistance – in the form of regulatory and other reforms. Many legislative, regulatory and tax relief measures could expedite the approval of transformative projects or improve the overall business climate in our region and throughout the state. Existing state programs also should be leveraged with some of the projects listed above as they support economic development efforts.

SEQRA: Many regionally significant projects get bogged down at the local level during the State Environmental Quality Review Act (SEQRA). The LIREDC recommends that the State assert itself as Lead Agency for all projects throughout identified as transformative, significant or important in the regional Strategic Plans. Such a declaration could fast-track crucial projects. No changes in state law or regulation would be required as long as a state agency is either undertaking, approving or funding a part of the project.

Government Consolidation: The LIREDC supports efforts to restructure and consolidate governments on Long Island to increase efficiencies, reduce taxes and help businesses.

Mandate Relief: The LIREDC supports the Governor's property tax cap, as property taxes on Long Island are job killers. However, our counties, towns, villages and school districts are under tremendous pressure to hold the line on property taxes because of unfunded mandates. Thus, the LIREDC supports efforts to reduce and/or eliminate unfunded mandates on municipalities.

State Taxes: The Long Island region continues to suffer from the Great Recession and any recovery on the horizon appears to be slow and bumpy. Thus, the LIREDC opposes any new (or extensions) of state taxes, fees, assessments and regulations on all individuals and businesses.

Pension Reform: The pension program for state and local government workers is not sustainable as it correlates to the high property taxes businesses pay on Long Island. Therefore, the LIREDC supports efforts to rein in spending by reforming the state pension programs for new government employees and to curb abuses in the program that have come to light over the past several years.

Public-Private Partnerships: The LIREDC supports public-private partnerships (P3), especially in the area of infrastructure improvements needed in our region.

Affordable Housing: The LIREDC supports the state's affordable housing programs, as these projects are economic development engines and often leverage significant private investment in our communities as well.

RechargeNY: The LIREDC supports all efforts to bring low cost power to our region and seeks to take full advantage of this new law and program to help our qualified businesses lower energy costs.

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LONG ISLAND PUBLIC PARTICIPATION STRATEGY

LONG ISLAND IS LISTENING!

REGIONAL ECONOMIC DEVELOPMENT COUNCILS
DRAFT PUBLIC PARTICIPATION

Adopted by Regional Council on 8-23-11

Task 2

The Proposed Strategy:

"Develop an approach to public involvement that will efficiently engage the public and solicit ideas as well as feedback to inform the Council's work. Innovative civic engagement approaches are encouraged. THE OPEN FOR BUSINESS website is one forum to solicit and receive feedback and comment from the public."

GOAL: To engage a broad range of public input in the development of the Long Island Strategic Plan and to provide feedback to the Regional Council on public reaction to the draft.

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The Long Island Regional Economic Development Council ("the Council") seeks to identify and provide opportunities to engage all potentially interested parties in the development of a Long Island Strategic Plan. The following Public Participation Strategy ("the Strategy") will help the Council in:

- Developing its Strategic Plan by providing an understanding of the region's present circumstances;
- Soliciting input from the public early on and throughout the process; and
- Providing a mechanism for comment by the public on draft documents prepared by the Council.

The Public Participation Strategy identifies stakeholders throughout the region who will be engaged in order to create the most effective Strategic Plan to advance the delivery of economic development programs and foster collaboration.

The LI Regional Council will set the tone to foster meaningful collaboration from stakeholders, provide opportunities for under-represented groups, promote dialogue and interaction, and engage members of the public. This strategy is a guide and should be considered a living document. Modifications to the Strategy are anticipated in order to add opportunities not currently included in this document.

The success of the Strategy will be determined by the following criteria:

- To what extent were the public and stakeholders engaged in the development of the Strategic Plan and the identification of strategic economic development opportunities and critical issues?
- To what extent did members of the Council contribute and participate?

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A multi-faceted Public Participation Strategy will include Regional Council meetings, Regional Council work groups, public forums, smaller community group meetings, business group meetings and individual input.

Outreach-

Open for Business and ESD, DOL, DOS, DEC press releases announcing Council website launch. Public service announcements, public library networks, phone and email, surveys, social media, publications and media advisories from trade associations, business groups and community groups. Press releases, press conferences, articles in trade magazines, news coverage, panels and meetings featuring the work being undertaken by the LI Regional Council and its work groups. Summary notes from RC meetings will be posted on the Governor's website, www.governor.ny.gov.

Input from the public-

- Public portion of Council meetings – written input solicited.

- "Suggestions" made via www.governor.ny.gov or nys-longisland@empire.state.ny.us

- Public forums "Input"- Between Council meetings two and three. Purpose will be to solicit stakeholder's ideas to help inform the Council of the critical issues and opportunities to be addressed in the Strategic Plan, the region's vision for its future, priority project selection criteria and Consolidated Funding Application endorsement standards.

- Public forums "Feedback" - Once several draft elements of the Strategic Plan has been developed, feedback will be solicited on emerging economic drivers and

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implementation agenda. Between Council meetings four and five.

In advance of each Public Forum, the Council will consider and agree upon the methods that will be employed in order to inform the public of the meeting dates, times, locations and purpose. Public forums can adopt interactive formats such as workshops, table discussions and open houses in addition to or instead of the more formal hearing process. Announcements may be provided through:

Open for Business Website

- (The Long Island Region has its own webpage on the ***Open for Business*** website accessible through the Governor's webpage www.governor.ny.us . Full details of the Council's activities will be posted on the web and the Council will expand its internet presence to use the web to generate public comment on strategic plan products. In addition to comments on specific documents, the public will be able to offer general comments via email and through the suggestion box. Regional Council staff will be responsible for posting to Council websites information about upcoming Council meetings, collecting comments received online and informing Council members.)
- Email blast
- Community and RC member websites
- Press releases to local print media-
  A media outreach strategy should be developed for implementation by ESD Public Affairs liaison; may include radio advisements or public service announcements, TV bulletins, flyers
- Local Government networks, such as Supervisors' and Mayors' Associations.

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- Special events- Should include established conferences, meetings, workshops and newsletters, local government planning meetings, regional planning organizations, existing agency outreach efforts and existing non –profit outreach efforts.
- Creative public participation such as site visits and tours.

- **Work groups**- The work groups are another component of the Strategy and consist mainly of stakeholders in the following categories:

- Innovation
- Natural assets
- Workforce and education
- Infrastructure
- Nassau Hub

This list will be posted on the ***Open for Business*** website. The public will be invited to respond to questions and provide comments on the working group focus areas. Work groups have been established in order to explore various opportunities and issues in more depth and to involve non-RC member regional stakeholders. Regular meetings will be scheduled as needed. Notification of work group meetings will occur through email and will be initiated by the Work Group co-chairs and staff liaison and meetings will be held at locations throughout the Long Island region in order to encourage participation from a variety of stakeholders.

Engaging the public- The goal is to provide as many opportunities as possible for stakeholders and members of the public to offer comment and provide feedback at every step of the process. Geographic diversity is a desired goal. Special emphasis should be given to reach out to Long Island's youth as well as the elderly. The multitude of institutions of higher learning should be engaged in the process as well. Regional Council members are encouraged to promote and update the activities of the Council on their

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respective websites and other media. The list below is not all-inclusive and represents the main groups that need to be represented during the strategic planning process. Regardless of which group is being addressed, the message delivered should be consistent.

- Action Long Island
- Advancement for Commerce, Industry and Technology (ACIT)
- Long Island IDAs (8)
- Community Development Corporation of Long Island (CDC-LI)
- Hauppauge Industrial Association (HIA)
- Long Island Association
- Long Island Fair Media Council
- Long Island Forum for Technology
- Long Island Business Development Council
- Long Island Mid-Suffolk Business Action (LIMBA)
- Long Island Software and Technology Network (LISTnet)
- Nassau County
- Suffolk County
- National Association of Women Business Owners-LI
- League of Women Voters
- Small Business Development Centers
- La Fuerza Unida
- LI Hispanic Chamber of Commerce
- 100 Black Men
- Sustainable Long Island
- All towns
- Vision Long Island
- WEDLI
- All academic institutions
- SCORE
- School Districts
- Universities and Colleges
- Rauch Foundation
- LI Angel Network
- LI Housing Partnership
- US Department of Commerce LI Export Assistance Center
- Suffolk County Planning Commission
- Nassau County Council of Chambers
- Council of Libraries
- Village/Mayors Association

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Continued outreach during implementation plan:

Long Island Regional Council
2011 Meeting Schedule

Time: 3:00 P.M.
Location: Will Advise

AUGUST

S	M	T	W	Th	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

SEPTEMBER

S	M	T	W	Th	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

OCTOBER

S	M	T	W	Th	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23/30	24/31	25	26	27	28	29

NOVEMBER

S	M	T	W	Th	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

The Council will continue public outreach during the implementation of the strategic plan. The Council should use the outreach approaches outlined above to continue public engagement in seeking:

- Reactions to strategic plan
- Input on how strategies are working
- Suggestions about emerging critical issues or opportunities
- Proposed new strategies

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LONG ISLAND PUBLIC PARTICIPATION RECORD

Public Forums

Five public forums were held in strategic locations to make attending as accessible as possible for Long Island residents from western Nassau County to eastern Suffolk County. A press advisory was distributed to Long Island media outlets as well as targeted outlets in the local community where each forum was held. Meeting notes were distributed to Council members, posted to the Long Island RC Wiki, and posted to the official Long Island RC website.

Date	Host Organization	Town	Attendees	Testimony
09/07/11	Long Island Association	Melville	50	20
09/12/11	Hofstra University	Hempstead	80	23
10/03/11	Suffolk County Community	Riverhead	100	23
11/01/11	Brookhaven Town Hall	Farmingville	25	7
11/02/11	Molloy College	Rockville Centre	125	27
Totals			**380**	**100**

A special Public Forum was held to provide information about the Consolidated Funding Application (CFA) process.

Date	Event	Host Organization	Town	Attendees
10/04/11	CFA Training	SUNY Old Westbury	Old Westbury	200

Work Groups

Five Work Groups were formed, including both REDC Members and non-members, representing diverse industries, backgrounds and interests. The Work Groups met regularly and played an integral part in developing and evaluating transformative projects and providing content for the Strategic Plan. State agency staff participated to provide information, facilitation, transcription and other support, as needed.

Writers:	10 total members	1 RC member	9 non-RC members	
Workforce & Education:	41 total members	7 RC members	31 non-RC members	3 State Agency Staff
Natural Assets:	27 total members	2 RC members	20 non-RC members	5 State Agency Staff
Innovation & Industry:	35 total members	9 RC members	24 non-RC members	2 State Agency Staff
Infrastructure/Nassau Hub:	52 total members	6 RC members	42 non-RC members	4 State Agency Staff
Totals:	**165 total members**	**25 RC members***	**126 non RC members**	**14 State Agency Staff***

*some RC members and Staff participated in more than one Work Group.

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Speaking Engagements

Date	Speaker	Organization	Venue	Town	Attendees
6/12/11	Marianela Jordan	Nassau Hispanic Task Force	Circulo Cty Ctr	Hempstead	90
6/15/11	Marianela Jordan	Touro Public Advocacy Ctr.	Touro Law School	Central Islip	25
6/22/11	Marianela Jordan	L.I. Labor Advisory Council	Woodlands/Oyster Bay	Woodbury	100
6/27/11	Mark Grossman	American Communities Inst.	Dowling College	Oakdale	80
6/23/11	Marianela Jordan	Nassau Council C of C	Bristal Community Rm.	East Meadow	35
7/25/11	Mark Grossman	Suffolk Workforce Investment Bd.	IBEW Local 25	Hauppauge	40
8/05/11	Marianela Jordan	Freeport Chamber of Commerce	Freeport Boatman's Assoc.	Freeport	20
8/09/11	Andrea Lohneiss Kevin Law	L.I. Business News	Carlyle on the Green	Bethpage	200
9/21/11	Stu Rabinowitz	Nassau Hub Study Open House	N. C. Legislature	Mineola	125
9/22/11	Stu Rabinowitz	Uniondale Visioning	Uniondale High School	Uniondale	200
9/22/11	Kevin Law	L. I. Labor Advisory Council	Marriott Hotel	Melville	50
9/28/11	Andrea Lohneiss	S.C. Dept Heads Meeting	H. Lee Dennison Bldg.	Hauppauge	15
10/06/11	Mark Grossman	Workforce Dev. Conference	Dowling College	Oakdale	80
10/07/11	Kenneth Adams	N. C. Council of Chambers	Crest Hollow CC	Woodbury	300
10/13/11	Marianne Garvin Carrie Meek Gallagher	Women Eco. Dev. of LI	Woodlands/Oyster Bay	Woodbury	60
10/13/11	Barry Greenspan Mark Grossman	Workforce Investment Boards	Molloy College	East Farmingdale	100
10/18/11	Kenneth Adams Stu Rabinowitz	LI Eco. Dev. Summit	RXR Building	Melville	125
10/20/11	Mark Grossman	Brookhaven Sm. Bus. Council	Crowne Plaza Hotel	Holtsville	50
10/27/11	Marianela Jordan	Hempstead Coordinating Council	Chateau Briand	Carle Place	115
11/01/11	Marianela Jordan	Elmont Civic Association	Elmont Civic Assoc.	Elmont	50
				Total:	**1,660**

Social Media

Facebook

Address: https://www.facebook.com/LIREDC
Facebook views: 3,187
Facebook likes: 75
Facebook posts: 22
As of 11/09/11

Twitter

Address: http://twitter.com/LongIslandREDC

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News and Feature Stories

07/27/11	Executive Chamber Release	*"Governor Cuomo launches Long Island Regional Council"*
08/05/11	Long Island Business News	*"Regional Eco Dev Council a Good Start"*
08/09/11	LI Business News	*"Regional Eco Dev Council Meeting This Week"*
08/10/11	Newsday	*"LI Development Unit Plans Public Forums"*
08/11/11	LI Business News	*"Regional Eco Dev Council Holds First Meeting."*
08/19/11	LI Business News	*"First Public Regional Eco Dev Council Meeting Set"*
08/25/11	Farmingdale Patch	*"Community Shows Support for Cuomo Initiative"*
09/02/11	LI Business News	*"Is it Too Late to Fix Long Island?"*
09/06/11	LI Business News	*"LI Eco Dev Council to Hold Public Forum Wednesday"*
09/06/11	Newsday	*"LI Economic Council Sets Forums on Growth"*
09/06/11	LI Business News	*"LI Eco Dev Council to Hold Public Forum Wednesday"*
09/06/11	Newsday	*"LI Economic Council Sets Forums on Growth"*
09/08/11	Newsday	*"LIers Suggest Ways to Create LI Jobs"*
09/08/11	LI Business News	*"Light Turnout at First Deco Dev Public Forum"*
09/09/11	Newsday	*"Economic Council to Convene on Tuesday"*
09/09/11	LI Business News	*"Regional Eco Dev Council Announces Third Meeting"*
09/13/11	LI Business News	*"16 LI Projects Submitted for State Funding"*
09/29/11	Newsday	*"7 Regional Projects Tapped for Funding"*
10/04/11	Newsday	*"Council OKs Criteria for State-aid Projects"*
10/25/11	Newsday	*"Plan Looks to Regain LI's High-Paying Jobs"*
10/31/11	Newsday	*"NYS Development Grant Deadline Extended"*
11/11/11	Newsday	*"Council Names Its Picks"*

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WORKING GROUP MEMBERS AND STATE STAFF

Writers Work Group

Co-Chair: Marianne Garvin, Community Development Corporation of Long Island
Co-Chair: Lawrence C. Levy, Hofstra University
Robert Brinkmann, Hofstra University
Michael Crowell, New York State Department of Labor
Stacey Epifane-Sikes, Town of Brookhaven
Richard Guardino, Hoftstra University
Pearl Kamer, Ph.D., Long Island Association
Christopher Niedt, Hofstra University
Mohammed Osman, Stony Brook University (Intern to Regional Council)
Ann-Marie Scheidt, Ph.D., Stony Brook University

Infrastructure Work Group

Co-Chair: Desmond Ryan, *Association for a Better Long Island*
Co-Chair: James Morgo, *Suffolk County Industrial Development Agency*
Facilitator: Amy Lowth, *New York State Department of Labor*
Staff Liaison: Loretta Crawford, *Empire State Development*
Hon. Edward A. Ambrosino, *Councilman, Town of Hempstead*
Fredrick Braun, *Town of Brookhaven Industrial Development Agency*
Dr. Calvin Butts, III, *SUNY College at Old Westbury*
Joseph Calderone, *Long Island Railroad*
John Cameron, *Cameron Engineering*
James Castellane, *Building Trades Council of Nassau and Suffolk Counties*
Subi Chakraborti, *New York State Department of Transportation*
Roger Clayman, *Long Island Federation of Labor*
William Duffy, *Operating Engineers, Local 138*
Lutricia (Pat) Edwards, *Citi Community Development – Long Island*
Peter Elkowitz, *Long Island Housing Partnership*
Theresa Elkowitz, *Vanasse Hangen Brustlin, Inc.*
Stacey Epifane-Sikes, *Town of Brookhaven*
Mark Epstein, *Long Island Railroad Commuters Council*
Robert Fonti, *Long Island Business Council*
Thomas J. Garry, *Harris Beach, PLLC*
Marianne Garvin, *Community Development Corporation of Long Island*
Kevin Gershowitz, *Gershow Recycling Corporation*
Marty Glennon, *Archer, Byington, Glennon & Levine, LLP*
Patrick G. Halpin, *Institute for Student Achievement*
Marc Herbst, *Long Island Contractors' Association*
Christopher E. Kent, *Farrell Fritz, P.C.*
Kirk Kordeleski, *Bethpage Federal Credit Union*
Brian Lee, *Newmark Knight Frank*
Hon. Mark Lesko, *Town of Brookhaven*

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Infrastructure Work Group *(continued)*

William Mannix, *Town of Islip Industrial Development Agency*
Howard Mann, *New York State Department of Transportation*
William McShane, *Sheltair Aviation*
Kelly Morris, *City of Glen Cove Industrial Development Agency*
Thomas Ockers, *Brookhaven Memorial Hospital Medical Center*
Jack O'Connor, *Newmark Knight Frank*
Mitchell Pally, *Long Island Builders' Institute/Metropolitan Transportation Authority*
Hon. Paul V. Pontieri, *Village of Patchogue*
Michael F. Puntillo, *Jobco Realty and Construction, Inc.*
Vanessa Pugh, *Town of Babylon*
Gregg Rechler, *Rechler Equity Partners*
Theresa Rizzuto, *Long Island MacArthur Airport*
Robert Stricoff, *Town of Babylon Industrial Development Agency*
Michael N. Vittorio, *First National Bank of Long Island*
Rick Wertheim, *United Way of Long Island*

Nassau Hub Committee *(of the Infrastructure Work Group)*

Co-Chair: Stuart Rabinowitz, *Hofstra University*
Co-Chair: George Bilicic, *Lazard Freres*
Hon. Edward A. Ambrosino, *Councilman, Town of Hempstead*
John Cameron, *Cameron Engineering*
Robert B. Catell, *Advanced Energy Research and Technology Center at Stony Brook University*
Richard E. Dibble, Ph.D., *New York Institute of Technology*
John R. Durso, *Long Island Federation of Labor*
Richard V. Guardino, *Hofstra University*
Jeffrey Kraut, *North Shore-LIJ Health Systems*
Cara Longworth, *Long Island Regional Planning Council*
Michael Maturo, *Reckson Associates Realty Corp.*

Workforce and Education Work Group

Co-Chair: Joseph Cabral, *North Shore-LIJ Health System*
Co-Chair: W. Hubert Keen, Ph.D., *Farmingdale State Coll*
Facilitator: Patricia Malone, *Stony Brook University*
Facilitator: Richard E. Dibble, Ph.D., *New York Institute of Technology*
Staff Liaison: Mark J. Grossman, *New York State Department of Labor*
Terri Alessi-Miceli, *Hauppauge Industrial Association*
Nada Marie Anid, Ph.D., *New York Institute of Technology*
Anthony J. Annunziato, Ed.D., *Bayport-Blue Point School District*
Donald Astrab, Ph.D. *Nassau County Community College*
Diane Bachor, *Winthrop University Hospital*
John Bierwirth, Ed.D., *Herricks School District*
Drew Bogner, Ph.D., *Molloy College*
Noreen Carro, *LMN Printing Company, Inc.*
Laura Cassell, *Catholic Charities*

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Workforce and Education Work Group *(continued)*

Cheryl Davidson, *Long Island Works Coalition*
Robert W. Dow, Jr., *Suffolk County Department of Labor*
John R. Durso, *Long Island Federation of Labor*
Lutricia (Pat) Edwards, *Citi Community Development*
Eugene Faber, *Oyster Bay/North Hempstead/Glen Cove Workforce Investment Board*
Paul H. Forestell, Ph.D., *Long Island University*
Jay Fund, *Hunter Business School*
V. Elaine Gross, *ERASE Racism*
Ana-Maria Hurtado, *Hempstead/Long Beach Workforce Investment Board*
Christopher Kelly, *International Brotherhood of Electrical Workers, Local 25*
John Lombardo, *Suffolk County Community College*
Barbara McDonald, *Workforce Development Institute*
Shaun L. McKay, Ph.D., *Suffolk County Community College*
Martin Murphy, *Long Island Regional Adult Education Network*
Christopher Niedt, *Hofstra University*
Charlene Obernauer, *Long Island Jobs with Justice*
Eric Ricioppo, Ed.D., *Sanford Brown Institute*
Thomas Rogers, Ed.D., *Nasssau BOCES*
Robert A. Scott, Ph.D., *Adelphi University*
Anne D. Shybunko-Moore, *GSE Dynamics Inc.*
Paul Tonna, *Energeia Partnership*
William Wahlig, *Long Island Forum for Technology*
Kenneth White, *Brookhaven National Laboratory*
Lucille Wesnofske, *Small Business Development Center at Farmingdale State College*
Elana Zolfo, Ed.D., *Dowling College*

Natural Assets Work Group

Co-Chair: Belinda Pagdanganan, *National Grid*
Co-Chair: Carrie Meek-Gallagher, *Suffolk County Water Authority*
Facilitator: Peter Scully, *New York State Department of Environmental Conservation*
Staff Liaison: Aida Reyes-Kuehn, *Empire State Development*
Steven Bate, *Long Island Wine Council*
Donna Boyce, *Sustainable Long Island*
Bonnie Brady, *Long Island Fishing Association*
Robert Brinkmann, *Hofstra University*
Melissa Connolly, *Hofstra University*
Michael Deering, *Long Island Power Authority*
Rev. Patrick G. Duggan, *Abundant Communities Together, Inc*
Ronald Foley, *New York State Office of Parks, Recreation & Historic Preservation*
Joseph M. Gergela, *Long Island Farm Bureau*
John Halsey, *Peconic Land Trust*
Hon. Stephen Mahler, *Nassau County Village Officials Association*
Kevin McDonald, *The Nature Conservancy*
Moke McGowan, *Long Island Visitors and Convention Bureau*
Vito Minei, *Cornell Cooperative Extension, Suffolk County*

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Natural Assets Work Group *(continued)*

Paul Monte, *Gurney's Inn*
Lisa Ott, *North Shore Alliance*
John Pavacic, *Central Pine Barrens Joint Planning and Policy Commission*
Stephen Ridler, *New York State Department of State*
Jennifer Rimmer, *Nassau County Department of Economic Development*
Paulette Satur, *Satur Farms*
Christopher Squeri, *New York Marine Trades Association*

Innovation and Industry Clusters Work Group

Co-Chair: Samuel Stanley, M.D., *Stony Brook University*
Co-Chair: Stephen Savage, *CA Technologies*
Facilitator: Barry Greenspan, *Empire State Development*
Staff Liaison: Ann-Marie Scheidt, Ph.D., *Stony Brook University*
Hon. Edward A. Ambrosino, *Councilman, Town of Hempstead*
Samuel Aronson, Ph.D., *Brookhaven National Laboratory*
Linda Bianculli, *Town of Oyster Bay*
Richard Bivone, *Long Island Business Council*
David L. Calone, *Jove Equity Partners, LLC*
Michael F. Canders, *Telephonics Corporation*
Robert B. Catell, *Advanced Energy Research and Technology Center at Stony Brook University*
Resi Cooper, *Archer, Byington, Glennon & Levine, LLP*
James D'Addario, *D'Addario and Company, Inc.*
Kevin Dahill, *Nassau-Suffolk Hospital Council*
Gemma DeLeon, *Long Island Power Authority*
Nancy Douzinas, *Rauch Foundation*
Tracey A. Edwards, *Verizon Communications*
Mark Fasciano, *Canrock Ventures*
Arthur Gianelli, *Nassau University Medical Center*
Peter Goldsmith, *LISTnet*
Michael D. Hervey, *Long Island Power Authority*
Rupert Hopkins, *XSB, Inc.*
Hon. Mark Lesko, *Brookhaven Town Supervisor*
Pat McMahon, *Northrop Grumman Corporation*
James McCaffrey, *Town of Oyster Bay Department of Economic Development*
Yves Michel, *Suffolk County Department of Economic Development*
Thomas Ockers, *Brookhaven Memorial Hospital Medical Center*
Frank W. Otto, *Long Island Forum for Technology*
Joseph A. Quagliata, *South Nassau Communities Hospital*
Stuart Rabinowitz, *Hofstra University*
Gordian Raacke, *Renewable Energy Long Island*
Yacov Shamash, Ph.D., *Stony Brook University*
Anne D. Shybunko-Moore, *GSE Dynamics, Inc.*
Charles Strain, *Farrell Fritz, LLC*
Kevin Tracey, *Feinstein Institute*
William Wahlig, *Long Island Forum for Technology*
Lawrence Waldman, *Eisner Amper, LLP*

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LONG ISLAND REGIONAL COUNCIL STAFF LIST

Klumars Amiri, *New York State Energy Research and Development Authority*

Joseph Calderone, *Metropolitan Transportation Authority*

Subi Chakraborti, *New York State Department of Transportation*

Janet Cox, *Port Authority of New York and New Jersey*

Loretta Crawford, *New York State Empire State Development*

Michael Crowell, *New York State Department of Labor*

Michael Deering, *Long Island Power Authority*

Thomas DeJesu, *New York State Power Authority*

Jaime Ethier, *New York State Department of State*

Roger Evans, *New York State Department of Environmental Conservation*

Brian X. Foley, *New York State Office of Parks, Recreation & Historic Preservation*

Ronald Foley, *New York State Office of Parks, Recreation & Historic Preservation*

Philip Giltner, *New York State Department of Agriculture and Markets*

George "Chip" Gorman, *New York State Office of Parks, Recreation & Historic Preservation*

Barry Greenspan, *New York State Empire State Development*

Sharon Griffith, *New York State Energy Research and Development Authority*

Mark J. Grossman, *New York State Department of Labor, Deputy Executive Director LIRC*

Michael D. Hervey, *Long Island Power Authority*

Celeste Johnson, *New York State Department of Health*

Marianela Jordan, *Governor's Nassau County Regional Representative*

Earnest Langhorne, *New York State Homes and Community Renewal*

Andrea Lohneiss, *New York State Empire State Development, Executive Director LIRC*

Amy Lowth, *New York State Department of Labor*

Andrew Lynn, *Port Authority of New York and New Jersey*

Patricia Malone, *Stony Brook University*

Scott Martella, *Governor's Suffolk County Regional Representative*

Dominic Martello, *New York State Affordable Housing Corporation*

Carol Mead, *New York State Empire State Development*

Beth Mitchell, *New York State Empire State Development*

Glenn Murrell, *New York State Department of Transportation*

Geraldine Neal, *New York State Department of Housing*

Mohammed Osman, *Stony Brook University*

Vincent Palmer, *New York State Environmental Facilities Corporation*

Joseph Palozzola, *New York State Homes and Community Renewal*

Ellen Poliski, *New York State Department of Health*

Aida Reyes-Kuehn, *New York State Empire State Development*

Stephen Ridler, *New York State Department of State*

Robert Roeckle, *New York State Department of State*

Ann-Marie Scheidt, Ph.D., *Stony Brook University*

Peter Scully, *New York State Department of Environmental Conservation*

Austin Shafran, *New York State Empire State Development*

William Spitz, *New York State Department of Environmental Conservation*

Kelly Tyler, *New York State Energy Research and Development Authority*

Gregory Watson, *New York State Homes and Community Renewal*

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APPENDIX E

Transformative Project Proposal Submission

(due by 4:00 pm on October 14, 2011)

Title:

One - two sentence description of transformative project

Detailed Project Description:

Could be several pages and must clearly identify project lead, other project participants and their roles, including human resources, material resources, financial resources, and in-kind support.
Will the project bring external resources into the region?
How does the project make effective use of regional assets, capitalize on regional opportunities and strengthen one or more economic drivers and resolve or ameliorate critical issues that have impeded appropriate economic growth?
How does the strategy address the needs and issues most critical for enhancing the region's competitiveness? Please describe what, if any, element of this project has begun.

Regional Council vision:

Description of how project makes a premier contribution to the achievement of the regional vision.

Implementation schedule:

Give a detailed description of project readiness, including a timeline for completion.

Project Resources and Management:

If project involves capital expenditure (new construction or rehabilitation of existing facilities), clearly describe who has site control and attach necessary documentation.
If project involves non-capital expenditures, clearly describe who will manage this project and attach commitment letters demonstrating financial and in-kind resources committed to the project.

Financing:

Budget by year if project is proposed to be undertaken in phases; NYS funding request and year needed; leverage to be provided , i.e. other funding commitments, private and other public sources -- attach firm commitment letters.

Job creation:

For each category, include general job descriptions, wages and the assumptions used to generate the information

Short-term construction jobs

Long-term permanent jobs at project site (Applicant should be aware that permanent job creation will be tracked ann ually and funding re-capture terms may be required if job goals are not met)

Indirect jobs created by project partners (companies, other entities)

Workforce development:

Skill sets involved: How will the jobs created by the project be filled by Long Islanders; how will the project enable Long Islanders to qualify for jobs currently unfilled? Will the proposed project include retraining of incumbent workers (describe), training of u nemployed, entry level workers from current sources, entry level workers from new/enhanced sources?

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Economic impact on the region:

Attach economic impact data and documented projections, if available. How will project impact targeted industry cluster, other industry clusters, establish synergy with other industry clusters in NYS and/or encourage collaborations with other NYS regions, if applicable?

Challenges or potential obstacles:

Should address regional and state-level regulatory and legislative obstacles e.g., zoning, state regulatory or policy constraints, an d describe actions needed to advance the project. What action or group of actions, projects, and/or policy changes is proposed a nd how will the action, project or policy change be implemented?

Regional support:

Include letters of support/collaboration/formal strategic partnerships from the following sectors: government, business, commu nity, and labor.

Community Development Benefit:

Describe how the project improves the Long Island community. Include a discussion of whether the project, by itself or in c ombination with other proposed projects, will benefit underserved communities and have an impact on distressed areas.

Applicant Name, Organization and Contact Information including phone and email address.

It is strongly recommended that all applicants *submitting Transformative Project Proposals* also complete a Co nsolidated Funding Application ("CFA") by October 14, 2011. You can access this at: http://nyworks.ny.gov/

Transformative Project Proposals must be submitted by email to: Bar ry Greenspan, bgreenspan@empire.state.ny.us or by FAX 631-435-33 99 by 4:00 pm on Friday, October 14, 2011 or by mail to: Empire State Development, 150 Motor Parkway, Suite 311, Hauppauge, NY 11788 postmarked by October 14, 2011.

9-23-11

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TRANSFORMATIVE PROJECT SELECTION CRITERIA

In order to make the most efficient use of limited resources, provide an objective method for prioritizing projects with potential regional transformative impact and the ability to advance the objectives outlined in the strategic plan, the Long Island Regional Council has developed Transformative Project Selection Criteria.

Consistency with Regional Vision and Objectives (5 points maximum)

5 Project makes a fundamental contribution to achieving the regional vision by furthering four or more identified objectives set forth in the regional vision statement

4 Project makes a fundamental contribution to achieving the regional vision by furthering three identified objectives set forth in the regional vision statement

3 Project makes a fundamental contribution to achieving the regional vision by furthering two identified objectives set forth in the regional vision statement

Collaboration and Support for the Project (5 points maximum)

5 Project involves significant, measurable collaboration between at least four of the following: government, business, labor, academia, non-profits, or civic groups

4 Project involves significant, measurable collaboration between three of the following: government, business, labor, academia, non-profits, or civic groups

Leveraging of other Funds (5 points maximum)

Investment (other than New York State funds) as a percentage of project cost

5 Five to one or more leverage with private investment, local or federal funds

4 Four to one leverage with private investment, local or federal funds

3 Three to one leverage with private investment, local or federal funds

2 Two to one leverage with private investment, local or federal funds

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Workforce Development and Quality Jobs (5 points maximum)

Project will lead to measurable, improved job skills and higher-paying jobs for Long Island residents, and particularly for underemployed or chronically unemployed populations OR Project leads to improved job prospects and increased wages as well as an increase in traded products for the industry

5 Project makes significant, measurable commitments to all elements of one of these goals

3 Project impacts workforce development by creating specialized training initiatives and/or targets employment opportunities for people of color or other underserved or underemployed populations

1 Project makes significant, measurable commitments to some elements of these goals

Direct long-term employment (5 points maximum)

5 Project creates more than 100 new, long-term jobs

4 Project creates more than 50 new, long-term jobs

3 Project creates 25-50 new, long-term jobs

2 Project creates up to 25 new, long-term jobs

Construction or other short-term skilled and semi-skilled employment

(5 points maximum)

5 Project creates more than 100 "person years" of local employment

4 Project creates 50-100 "person years" of local employment

3 Project creates 25-50 "person years" of local employment

2 Project creates up to 25 "person years" of local employment

Financial Sustainability (5 points maximum)

Degree of long-term public sector funding required

5 Project is a net revenue generator in three years or less

4 Project is a net revenue generator in more than three years

3 Reduced or no sustained public sector support required

2 Moderate direct public sector support required

1 Significant sustained direct public sector support required

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Stimulating Small Businesses including Women / Minority Business Enterprises
(4 points maximum)

2 Project creates demonstrated, measurable opportunities for small businesses

2 Project creates demonstrated, measurable opportunities for NYS-certified MWBEs

Project Implementation Timeline (5 points maximum)

Time required for the project to be implemented and fully operational

5 1 – 2 years

3 3 – 4 years

1 more than 4 years

Impact (16 points maximum; additionally if the project fails to qualify for at least 10 points, no points will be granted)

Project demonstrates any of the following: increases outside investment in our region; removes impediments to economic development; encourages equity and investment in underserved people and/or neighborhoods; protects our natural environment.

2 Project stimulates a traded industry by measurably increasing the export of goods and services by existing companies in the sector or by fostering the growth of new companies that export goods and service

2 Project creates significant resources for or fosters the commercialization of a new technology in a traded industry or the commercialization of a new sustainable renewable energy or life sciences or clean or green technology

2 Project increases the diversity of Long Island's housing stock by producing affordable non-age restricted multifamily rental housing that includes but is not limited to units with two or more bedrooms, that is affirmatively marketed and does not have residency requirements

2 Project advances equity for people and communities of color through policies or strategies that encourage investment in distressed communities and/or reduces our historical pattern of racial and economic segregation

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2 Project provides essential support for and significantly improves the sustainability, preservation or promotion of a critical natural, cultural, or historic asset or resource

2 Project utilizes renewable resources technology construction and/or operation

2 Project involves redevelopment of a brownfield or downtown; removes documented blight; or is a transportation oriented development

2 Project involves demonstrated collaboration with other regions

"person year" is the number of construction workers needed to complete the job in a year = one full-time job for one year.

Total Allowable Points (60)

10-2-11

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