Land Use Policy and Development on Long Island

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Land Use Policy and Development on Long Island

Richard Murdocco

Fordham University, May 2009
A Statement from the Author

My name is Richard Murdocco, and this is my introduction to my senior thesis. I am writing my thesis on Suburban Land Use on Long Island as it relates to Superfund sites and policy making. There is no scholarly detachment from the subject matter in this piece, for I have been a Long Islander my whole life. It is from this milieu that I have undertaken this endeavor, and I feel that my years of residence can help me dissect the various idiosyncrasies that make a place like Long Island unique. When I was younger, I always wanted to live in New York City. I was always attracted to the bustling metropolis, and was lucky enough to have the opportunity when I attended Fordham University.

During the summer of 2008 I earned a position at the Mayor’s Office for Capital Project Development. There, I had the privilege of working with project managers, planners, city officials and many different departments within the City. Not only was this my first legitimate job, but I moved in Staten Island with my Aunt and Uncle. The summer quickly passed, and the overall experience was a resoundingly positive one, and I enjoyed living in the “forgotten borough”.

One day in particular sticks out in my mind during the summer. It was a hot, stifling July afternoon at 4:15pm, and everybody in my office was hurriedly packing up to leave, eager to get out as fast as they can. All of them had plans to go upstate. At the time I thought that this made sense, for it was a Friday and no one wants to be in the office on a nice day. I called my aunt to see what she was up to. She told me that her and
my uncle were going to their house in out in Pennsylvania, and would be back on Monday. I thought nothing of it, and took the A train to Penn Station at 4:30. I boarded the LIRR train going to Stony Brook (If you can catch the 4:49 out of Penn, the train is express up until Huntington in Suffolk County. This nearly cuts the commute time in half, and I highly recommend it. Find a fold down seat near the window, you can lounge out and look at the window…it is rather pleasant actually). While I looked out the window at the passing trees and houses I realized something. All my co-workers, people who work for the City Government and reside in the City, my Aunt and Uncle included, could not stand to be in the City for any longer than 4 days a week during the summer. What I noticed this Friday was the pattern every Friday since May, the pattern of people leaving in a rushed frenzy. I asked myself why would someone want to live in the City to just rush out of it on a Friday? Can’t the city be enjoyed on a day off? Isn’t that what tourists pay millions of dollars a year to do? When I got off at the Stony Brook station I took a deep breath on the platform, and the air had a distinct crisp taste. It was a refreshing contrast from the smog that I saw lingering over Manhattan as I crossed the Verrazano Bridge on the X1 express bus every morning. It was at this moment that I realized I was a true Long Islander, and I truly loved where I was from.

My brother underwent a similar catharsis, albeit in a different manner. As a New York City Police Officer, he and his fiancée moved to the borough of Brooklyn to be closer to his job. He told my family that he was “more than happy to get off the Island.” The honeymoon period quickly waned, and soon my brother, the self professed Brooklynite, suddenly desired a garage and some space. That was six months ago, and currently he and his fiancée are looking for a house out by me, and when we speak he
talks about Long Island in the past tense with a longing that is rare to see in a stoic man such as himself.

Anecdotes aside, there is something special about living on Long Island. The suburban experience is quintessentially American, and Long Island has the ability to provide a slice of that for millions who call it home. Over the years more and more people moved to the Island to get their slice, and development has skyrocketed. Farms became homes, and it went on and on.

Nassau County is mostly developed, and at this point I feel that the developmental paths of future can only go down certain courses. However, Suffolk, where I am from, is beginning just beginning to truly blossom with development. Areas past the William Floyd Parkway are ripe for development, and it is with fresh slates such as these that I feel we can take a part in shaping Long Island’s future. While I have an innate love for the place where I am from, I am not blinded to its flaws.

Currently, the lifestyle and growth patterns of Long Island cannot be sustained. Plainly put, we are running out of room to sit down and sprawl out. Our infrastructure is dated and in dire need of upgrades. NIMBY-ism runs rampant, preventing any new large-scale, monumental changes, and local governments are paralyzed by division and lack of decisive, regional-scaled action. I realize that if development is left unchecked, Long Island will be at the mercy of the same types of subdivisions and “townhouse” developments that have been causing LI grief since William Levitt bought his first potato farm.

It is not my goal to stand on an environmental soapbox, nor is it to bash the suburbs as many already do. My goal is to try my best to examine in a non-biased way
suburban land use on Long Island as it relates to Superfund sites and policy making. It is not the most-catchy title in the world, but it is my passion, and I make it my goal to be in a position in which I can help shape Long Island’s successful future.

Rich Murdacco

April 2009
Chapter I: The Historical Development of Long Island

Most suburbs radiate in rings around the central city, but Long Island is different, since it is an island (as the name cleverly states), development can only go so far in the directions in the compass. This relative compactness has shaped and influenced not only the physical form of construction for residences, infrastructure and industry, but also the patterns of development along the 118 mile long fish shaped isle. Long Island today is considered a suburb of New York City, but historically, the intricate connection between the two was not always as strong as it is today.

Long Island for most of its history was predominately rural and agricultural. During the colonial period, towns around the north and south shores sprouted up, taking advantage of the easily accessible water ways that fueled both commerce and recreation. Development was primarily centered along the coasts, while the middle of the island remained mostly uninhabited or developed. Out east the vineyards, potato farms and fisheries provided both sustenance and economy, while out west towards Manhattan, towns such as Brooklyn, Jamaica and Flushing prospered into larger cities. During the industrial revolution the tracks for the Long Island Rail Road were laid, and the trains brought the first commuters from the Island into Manhattan, forever changing the nature of the relationship between the two.

When the City of Greater New York was formed in 1898, Long Island’s largest population centers became part of New York City. Long Island in the early 20th century was a recreational playground for the wealthy, with the north shore being home to Gatsby-esque estates, crowning the area as the “Gold Coast.” Areas like Garden City were founded in Nassau County housed the wealthy in both the comforts of the country
living and urban life. In Suffolk County, amid the farms, fishing and small colonial towns, areas like the Hamptons became synonymous with wealth, recreation and exclusivity. William Kissam Vanderbilt II built the first automobile-exclusive roadway in the early 20th century. The road cut down the middle of the Island, and was the home of the first auto races. From the 1920s onward, the course of Long Island’s development was changed, mostly because of one man.

**Robert Moses and the Modern Development Path of Long Island**

No other period is as integral to Long Island’s developmental history as the Robert Moses era. When you mention the name, community activists cringe, and planners everywhere recoil. Regardless of one’s preconceived notions of the man, there is one thing everybody can agree on:

Moses himself, who feels his works will make him immortal, believes he will be justified by history, that his works will endure and be blessed by generations not yet born. Perhaps he is right. It is impossible to say that New York would have been a better city if Robert Moses had never lived. It is possible to say only that it would have been a different city.\(^1\)

While Moses’ impacts on the City were large, on Long Island they were in undeniably larger. In the 1920s, Moses became head of the Long Island State Parks Commission, and started immediately to shape the development path of the Island. Moses saw Long Island as New York City’s Playground, and sought to make the recreational treasures of the island available to everyone. The aspect of his career that many Moses’ critics ignore is the fact that from the start, Moses’ had reformist, populist ideals as his core foundation.

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\(^1\) *The Power Broker*, Robert Caro, pg. 21
Robert Moses is so important to Long Island’s developmental history because he laid out the paths in which the suburban exodus followed. As the constructor of the main system of parkways and later on, expressways on the Island, Moses was responsible for opening up the Island to the pressures of development. Originally an enemy of the wealthy, Moses built his parkways with the original purpose to provide a scenic, recreational drive to the various Long Island State Parks that he had dominion over. He had never envisioned the change in purpose for his parkways from recreational to commuter purposes, and never envisioned subdivisions to sprout up along the parkway routes.

After World War II, there was a cocktail of factors that worked in conjunction with one another to create “the perfect storm of development”: a severe housing shortage, cheap mortgages and ample space. Long Island was a fertile ground ripe for construction and development- under populated, ample space, and a good transportation infrastructure to shuttle buyers to and from the job sites in the City.

2 Please look to the construction issues with the Northern State Parkway
Above is a map that shows the development on Long Island in 1930, at the cusp of the parkway building boom. Note how development is mostly in Brooklyn, Queens and along the coast. The small string of development along the center of the Island is right near the Queens Boulevard corridor (state route 25), one of Long Island’s main thoroughfares at the time.

**Long Island’s Development Today**

With the boom of the automobile age, Long Island entered into a frenzied period of post-war development. The construction of the definitive suburb, Levittown in 1947 to 1951 occurred on an area of the Hempstead Plains that mostly consisted of potato farms at the time. Built along the right of way of Moses’ Wantagh Parkway, Levittown ushered in a precedent of building on Long Island.

Below: Island Trees, the area that will become Levittown (Right), and Levittown (Left).

The picture above and to the right portrays nicely how pre-sprawl Long Island looked. After Levittown the subdivisions came en masse. Development stretched eastward into Suffolk County with Moses’ Long Island Expressway in the 1960s and 70s.
Above is a map of Long Island in the 1960s. The lines of development in Eastern Suffolk follow the main arterial corridors of the island. Note also, how the development along the coast has spread further inland from the 1930 map, and how development in the middle of the Island has accelerated.

Today, development on the Island has even further increased, with growth thinning out east of the William Floyd Parkway (County Road 46) in Eastern Suffolk County. Above is a map of the Island from 1990, with most of the island shaded with
development. Towards the east end, the white portions of the island are the Pine Barrens, an area that is key to the Long Island water supply. The area is land that is protected from development. Below, a map showing LI’s environmental preservation sites:

![Map showing LI’s environmental preservation sites](image)

The explosion of population on the Island has been instrumental in driving growth. Below, a chart showing LI’s population growth from 1950-2000:

![Chart showing LI’s population growth from 1950-2000](image)
As the chart shows, the population has more than doubled since 1950. This has an immediate impact on the island’s growth patterns, as well as it’s transportation infrastructure.

Long Island’s Current Transportation Infrastructure:

Most of the main roads highlighted on the above map were built during the Robert Moses era, and were/still are not prepared to handle the massive influx of residents. The Southern State Parkway was built to 1920’s standards, and its embanked sharp turns and hills are perfect for a recreational drive in 1925, but in 2009 these aesthetic pleasures are dangerous to those that commute on the road. The LIRR is the largest commuter railroad system in the world, and shuttles over 301,000 riders, but almost all of this travel’s purpose is to bring commuters to and from the city. Commuters within the Island itself is noticeably lower. As the MTA itself puts it:

Traditionally serving a Manhattan-bound market, the LIRR has undertaken extensive efforts to augment its reverse-commute and off-peak service to meet the needs of businesses in Nassau and Suffolk counties.

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3 LIRR at a Glance 2007, Metropolitan Transit Authority, LIRR at a Glance 2007
4 The MTA Network- LIRR, Metropolitan Transit Authority
This change in philosophy of the MTA is a step in the right direction for the developmental path of Long Island, and appropriately into Commissioner Wood’s ideas about the creation of downtown nodes across the island.

**Conclusion**

In closing, Long Island’s explosion of development is relatively new. Long Island saw its role go from that of independent, self-sufficient entity to the playground of the wealthy, and finally as a home to bedroom suburbs. The Island today is becoming more like that of Long Island of the past, with towns bringing in both industries, businesses and residents in development that is less reliant upon the central city. As mentioned earlier, Long Island is different from most suburbs for its physical form constrains the amount of sprawl the land can hold. To some, Long Island is the quintessential suburb, but that view must be reconsidered. A suburb’s purpose is to house the workers of the city, which Long Island does rather well. It must be remembered however, that the Island’s role is not solely restricted to just that of a bedroom community. Amongst the subdivisions lies a rich history of development that was free of the central city. Policy makers no longer see the role of the island development as orientated solely on the principle of making transit to the city quicker, as the policies in the past have. Today, development is centered for the Island, within the Island.

This change in philosophy has ushered in a new era for the Island, but the question remains if the area can handle it. The development philosophy may have changed, but the physical layout and building practices have not. Development on Long Island in the past has been almost cookie cutter, with subdivisions crawling out along the main arterial corridors further and further east. Today, with most the island developed, a
new school of thought must be considered. Density must be increased, transit must be improved, and the perils of NIMBY-ism must be overturned. If that does not happen, Long Island will continue to be a monument to common suburbia, a title that severely misses the nuance of the whole region.

Below, Long Island’s Development in timeline form:

<table>
<thead>
<tr>
<th>Long Island’s Development since 1640</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long Island 1st Settled in Southold and Southampton</td>
</tr>
<tr>
<td>Suffolk chartered - 1 of 10 original counties in NYS</td>
</tr>
<tr>
<td>Battle of Long Island with Nathan Hale</td>
</tr>
<tr>
<td>Lighthouse at Montauk Pt. - 1st coastal beacon in NY</td>
</tr>
<tr>
<td>Whaling and fishing forge ties to New England</td>
</tr>
<tr>
<td>Long Island Rail Road begins operations</td>
</tr>
<tr>
<td>Quaker farmers assist the Underground Railroad in the Civil War</td>
</tr>
<tr>
<td>West to East railroad brings goods and people</td>
</tr>
<tr>
<td>Nassau County breaks away from Queens</td>
</tr>
<tr>
<td>Still mostly railroad villages and isolated rural farming area</td>
</tr>
<tr>
<td>Vanderbilt Long Island motor parkway</td>
</tr>
</tbody>
</table>

All Maps and Charts are sourced from the Regional Plan Association’s document:

*Long Island Profile: A Summary of Demographic, Economic and Environmental Trends* 2003
Chapter II:
Long Island’s Water System

To understand how unplanned and accelerated development impacts in totality; one must look at Long Island’s water system and understand both its functioning and nuances. In terms of vulnerability to the impacts of non-sustainable development, the water system is one of the most likely systems to be effected.

An Introduction to the Long Island Water System- How it Works

Long Island’s water system is unlike that of New York City’s. The City system consists of a series of watersheds in the Catskill Mountains, where surface water runoff accumulates into collecting lakes, which is then piped down to the five boroughs. The City’s watershed is protected land, and in recent years the City has purchased buffer land surrounding the more developed areas that the watersheds are in. The ability to protect the land surrounding the water system has both been an effective and smart long term move by officials. Long Island’s drinking water comes from aquifers found in the ground. An aquifer is basically rock that is saturated with water, and is pumped out for residential, industrial and commercial use. This type water system does not have the ability to protect itself from the pressures of development. Since Long Island surrounded by salt water, the freshwater is mostly contained underneath the island itself, separated into layers by clays. The whole Island itself is the watershed. As the New York State Department of Environmental Conservation says of the system: “The aquifers underlying Long Island are among the most prolific in the country. Almost all of Long Island’s drinking water is from groundwater with surface water an insignificant contributor. According to
the *USGS Estimated Use of Water in the United States in 2000*, Nassau and Suffolk counties utilized more than 375 million gallons of groundwater per day for public, domestic, industrial, and irrigation uses.\(^5\)

Source: NYS DEC

Long Island’s system is a unique, multi-tiered system that takes the rainwater and allows it to dissipate through the multiple layers of rock and clay, creating the 3 layers you see above.

Under natural or predevelopment conditions, precipitation (mainly rain and snow) was the source of all of Long Island’s fresh water. Contrary to a former widely held misconception, “underground streams” have never brought fresh water from the mainland to Long Island.\(^6\)

Before development, recharge from precipitation entered the Long Island ground water system at an estimated rate of 1,126 MGD; nearly 60% of which remained in the water-table aquifer; 37 percent moved to deeper units; and only about 3% entered the Lloyd Aquifer.\(^7\)

The topmost level of groundwater is the Upper Glacial Aquifer, followed by the Magothy and finally the lowest Lloyd Aquifers. The depths below the water table of Long Island can basically be called a geological slurry of sorts, with rocks looking similar to small

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\(^5\) *Long Island Aquifers*, NYS DEC


marbles and gravel in a cup of water. The rock slurry filters out any imperfections found in the rainwater, and leaves high quality and plentiful drinking water. In Suffolk County alone, the aquifer’s total capacity is around 70 trillion gallons.\(^8\) From that supply, about 210 MGD is used, with 990 MGD being recharged into the system. 95 MGD is lost due to use in sewers and evaporation from irrigation and sprinklers, summing up to about a 10% lost, mostly due to the waste water recharge provided by in ground septic tanks. Septic tanks will be discussed in more detail later on. In the more populated and densely developed Nassau County, the amount of water lost amounts to around 55%, a rather significant figure that is the result of sewer system discharge.\(^9\) The uses of water varies, but a snapshot of the year 1981 can be rather telling. 385 MGD was pumped for public supply, and an additional 115MGD was pumped for industrial-commercial and agricultural uses.\(^10\)

Nassau County’s main concern pertaining to the water system is excessive water consumption and population growth, while Suffolk’s is pollution and contaminants found in the aquifers. Provided on the next page is a map that can give you the idea of dispersion of Long Island’s Sewer and Septic Systems:

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\(^8\) *Proceedings of the Conference on Water Quality on Long Island*, The Center for The Regional Planning Studies and the Long Island Regional Planning Board
\(^9\) *Proceedings of the Conference on Water Quality on Long Island*, The Center for The Regional Planning Studies and the Long Island Regional Planning Board
As the above map shows, the trend seems to be that earlier developed Nassau County has a more established sewer system, while most of Suffolk County still uses septic tanks. This is where the water loss discrepancy between Suffolk and Nassau comes in. Simply put, Suffolk’s septic tanks recharge the aquifers while the sewers don’t.

Why all this discussion of the water system though? Why is this important in terms of Suburban Land use and Land use policy?

The Water System and it’s Implications for Land Use Policy

As mentioned earlier, Long Island does not have a defined space that collects surface water and can be considered a watershed. The whole Island itself is the watershed, and this fact has many implications. First, the level of development has a direct influence on the quality of the water supply system on Long Island. The rapid development of the island in the latter half of the 20th century has exponentially degraded
the quality of the water, rendering the upper aquifer unfit to drink, and is starting to impact the current source of drinking water on the Island.

The Upper Glacial aquifer is the immediate water table, and the source that most residents historically have used to draw their private drinking water from across the Island from the first settlements in the 17th century to the 1960s-70s. Wells in Nassau County were relatively rare in the 1960s, mainly because the county was the first to develop, but in the more rural Suffolk the usage of a private well was still prevalent up until the 1970s-early 80s.

Long Island rampant growth in the post-WWII era has put a severe strain on the aquifers. Man’s impact on the water system was first being examined when both Kings and Queens Counties’ wells were beginning to turn brackish and salty.

In summary, the problems in Kings and Queens Counties were (1) saltwater encroachment near the shores in response to the severe declines in ground-water levels that resulted from over pumping of the ground water system, and the loss of recharge through extensive paving and through implementation of storm and sanitary sewers; and (2) a general deterioration of the quality of ground water as a result of urbanization.\footnote{Availability and Historical Development of Ground-Water Resources on Long Island- An Introduction, US Geological Survey Water Resources Investigations Report 88-4113 by Bronius Nemickas, Gail E. Mallard, and Thomas E. Reilly}
This problem is also threatening Nassau County as well, but local government agencies in the 1970s and 80s reshaped water consumption and policy, and growth in the county has leveled off, allowing for some recharge. The trend seems to be that

"The quality of ground water on Long Island is related to the pumping patterns as well as to changing patterns of land use that reflect the eastward population growth since the mid-19th century."  

What does this mean though?

In Suffolk County, the prevalent sources of groundwater contamination are waste water and nitrate discharge from residential septic tanks, pesticides from agricultural sites and chemical absorption from lawn fertilizers and industry. Since the county became more and more thoroughly developed from the 1960s on, the result was that Upper Glacial Aquifer has become unusable.

Seepage of domestic waste water from thousands of cesspools on Long Island has contaminated the shallow ground water in many of the intensely developed suburban parts of Nassau and Suffolk Counties.  

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With the Upper Glacial Aquifer essentially unusable, private wells dug deeper into the ground and drew water out of the middle level Magothy Aquifer. Currently the main source of Long Island’s water supply is the Upper Magothy, but this is transitioning to the Lloyd in some of its more shallow areas. The quality of the Magothy is threatened, but local officials took initiative and preserved the Pine Barrens further out east on the island:

The Pine Barrens in Suffolk County have been the focus of attention for the last few years. This is because they are the last large nearly undeveloped area on Long Island, consisting of some 100,000 acres. Also, because they are within the deep recharge zone of the Magothy aquifer. Due to the limited development in the Pine Barrens the ground water in this area is particularly pure.14

Private well use has stopped for the most part, and most residents are hooked up to the public water supply which draws from the threatened Upper Magothy. As important as residential development patterns are to the quality of ground water on Long Island, the actions of industry are even more so.

**Industrial Sites and Groundwater Contamination**

For years, Long Island has been home to various heavy industries. While most of the early economy was fueled by crops such as potatoes in the west and grapes in the east, as the industrial revolution went on, many heavy industries from a diverse set of sectors moved to the area. Pioneering industries in both aviation and manufacturing were the biggest sectors to take advantage of the vast tracts of land in their new home. These vital industries fueled economic growth, by they also had an unforeseen impact. Heavy manufacturing relies heavily on the use of various chemicals. A potent by-product of

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14 *Proceedings of the Conference on Water Quality on Long Island*, The Center for The Regional Planning Studies and the Long Island Regional Planning Board
these industries was the fact that harsh and volatile chemicals such as trichloroethylene and tetrachloroethylene after use needed to be stored and disposed of. With a lack of environmental know how, these companies just kept their waste in unprotected containers and went about their business. On top of that, these companies, along with fuel storage sites and gas stations, made it common practice to dump chemical waste as they please with no regard (or in most cases idea) for what their actions were doing. The contaminants of industry are typically Volatile Organic Compounds (VOCs), and are found throughout the Island. They are most common in the immediate vicinity of old industrial sites and abandoned gas stations with leaky fuel storage tanks. Since Long Island’s water shed is the land itself, the years of dumping these contaminants have resulted in the slow drain into the water system. Eventually, the contaminated water develops into a plume, and there is a rather large problem on local, state and federal official’s hands.

Below is an image that shows dispersion of ground water once it is absorbed into the aquifers.

Source: The Center for Regional Planning Studies and the Long Island Planning Board
This dispersal pattern has proven problematic for the subdivisions that have cropped up near these sites. A recent example of this is a 635 acre site in Bethpage, New York that used to house a former Grumman aviation plant. As Newsday has put it:

It is the latest toxic legacy from the 635-acre former defense plant. Among them: a plume of contaminated groundwater containing TCE that has moved south from two hazardous-waste sites. It has spread nearly two miles wide and is headed for public drinking water wells.

In the most recent case, the pollution came from leaking drums of volatile chemicals stored decades earlier on a four-acre portion of the site. An earlier cleanup effort that ended in 2002 removed more than 2 tons of chemicals from soil and groundwater. But small pockets of tainted soil gas remained, allowing vapor to seep back up through the soil and into some homes - a process known as vapor intrusion.15

Conclusions

As the above paragraph shows us, groundwater should essential in determining land use policy for Long Island. The groundwater on Long Island is the sole source of freshwater for over 7.6 million people who reside there. The preservation of the Pine Barrens was a very positive first step in protecting the watershed, but the constant construction of new, non-sustainable subdivisions is the equivalent of taking two steps forward and one step back. A pollution plume not only endangers the population that lives on top of it, but is costly and a burden on state resources. This chapter’s mission was to present how the geological functions of Long Island operate, and why that is important in planning. Good water policy and planning is essential for the sustainable future growth of Long Island. To achieve the end of sustained use of the Upper Magothy Aquifers, we must implement the following:

1. **Suburban Lawn Care Awareness**: How to organically care for a homeowner’s lawn is essential in preventing the saturation of nitrate into the ground, and

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15 *Toxins from old Grumman Plant Contaminating Bethpage*, Jennifer Smith, Newsday March 15th 2009
ultimately the water. Suffolk County Water Authority must increase awareness about the impacts that overutilization of inorganic fertilizers has on the water systems of Long Island.

2. **Curb Development near Essential Recharge Points:** The preservation of the Pine Barrens was a great policy decision, but more open spaces must be preserved. Pumping water out of the Lloyd Aquifer must go from an “eventual” matter to an “unnecessary” one.

3. **Curb use of Septic Tanks, and Implement Sustainable Sewage Systems:**

   The concentrations of several inorganic constituents in samples from the shallow and deep zones of the three suburban areas, as well as the frequency of VOC detections of samples from each suburban area, indicate that groundwater quality is improving in areas that have been sewered in more than two decades.\(^\text{16}\)

   As the above paragraph shows, sewers are an integral part to improving water quality. While sewering subdivisions deplete the aquifer at a more rapid pace, it is truly the lesser of the two evils when faced with more septic tanks. Medium to high density zoning with septic tanks is not sustainable. The push for more sewers must be made, for it is hedging bets on future development.

   The groundwater of Long Island is all that we have, and steps must be taken to prevent unhealthy and costly consequences that will hinder development for the future.

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Chapter III: Developmental Pressures and Difficulties in The Town of Brookhaven on Long Island

An Introduction to Former Commissioner of Planning David Woods, and The Town Of Brookhaven

The pressure to develop on Long Island is very strong. While it is normal for most areas have strong developmental pressures, those found on Long Island are magnified to the point that it impacts policy making decisions. To aid my writing about this topic, I sat down and spoke with David Woods, who once was the former Commissioner of Planning for the Town of Brookhaven. The town of Brookhaven is located in Suffolk County, New York, and is the largest town on Long Island. It has 8 incorporated villages, 52 hamlets and 39 school districts. The population as of 2000 was 450,000, and the town has an area of 362 miles (to give a sense of scale, the second largest town on the Island, Hempstead, has an area of 71.4 miles, but is a lot more densely populated.)

Below is a map of Brookhaven to show its size:

![Map of Brookhaven](http://www.co.suffolk.ny.us/departments/planning/Publications%20and%20Information/Local%20Government%20Units/02BrookhavenTown.aspx)
Commissioner Woods has a very diverse background, having:

… 20 years of professional public and private sector comprehensive planning experience. He holds two master’s degrees—the first in Government and Public Administration from the University of Maryland and the second in Urban and Regional Planning from Florida State University. Mr. Woods has worked as a consultant and in public service in New York, New Jersey, Connecticut, Washington, Florida and Minnesota. He served with regional planning organizations including the Metropolitan Council of the Twin Cities and the Tampa Bay Regional Planning Council. He served as Principal Planner for Comprehensive Planning for Hillsborough and Lee County in Florida, where he conceived and shepherded through to passage two comprehensive plans in response to the State of Florida’s Growth Management Act. He also was Planning Director for the City of Mount Vernon, New York, and Senior Planner for Lynwood, Washington.  

The following part of this chapter is conversation Mr. Woods and I had about had about development on Long Island, Superfund sites, and other miscellaneous topics that arose.

The Difficulty in Pursuing Development on Long Island

Unlike its more developed counterpart Nassau County, Suffolk County has “possibility for growth” says Mr. Woods. Suffolk, he says, has a model water quality regulatory system for saving the aquifer in the Pine Barrens preserve, but NIMBY-ism is the dominant community impulse in stopping development. “The lowest lying fruits have been picked,” implying that the first stage of development in the county has been achieved. For Woods, one of the biggest problems in Suffolk is the reliance on the septic system. Steve Levy, the current County Executive for Suffolk County, is currently

18 National Search Produces Nominee for Critical Planning Post, Brookhaven.org, March 2006
aggressively pursuing retrofitting sewers and constructing sewage treatment plants for the Island, for as Mr. Woods put it “Steve Levy is right, without sewage, we can’t change the pattern of growth and foster the creation of downtown Hamlet centers.” Suffolk also has more limitations to development. The divisions of class according are deep, with the “Upper class, eastern LI and middle island middle classes” trying to shape the future of the Island. For example, according to Woods, Suffolk County is in two parts. The first part is western Suffolk, with a denser development pattern and population of around 1.1 million people, and eastern Suffolk, with 200,000 residents. The class-based suburban/urban divide found on the Island impacts policy as well. Woods stated that even though MTA toll/fare hikes would improve service to much of Brookhaven, it would be political suicide to support such policies, even if they would benefit the district greatly. Mr. Woods stated that “there are two groups that you do not want to cross politically on Long Island. One are the fire districts, they are all volunteer, and they all vote. Second, it is the school districts.” The power of the school districts should not be underestimated, and Woods stressed their importance multiple times during our conversation. The next section will look into why the districts are so important.

Mr. Woods and School Districts

The town has over 39 school districts, which Mr. Woods says is counter intuitive to smart growth. He claims that this number should be consolidated into 3 to 4 districts in order to quell the competition over development to help raise property taxes. Why consolidate I asked, picturing the political maelstrom that would erupt over the mere suggestion. Woods said that the districts of Brookhaven not only promote unrestrained
growth in the pursuit of more property tax revenues, but they are a “duplication of
administrators that do the same job, and represent total localist control. The masses of
scale are off. Roosevelt School District out in Nassau cannot provide the state mandated
right to education. Their neighboring school districts have a huge tax difference, and are
one of the wealthiest. It’s not right.” The presence of school districts creates competition
that big box retail developers can play off of, allowing officials to lose the upper hand in
negotiating with developers. In terms of priority, this makes the need for development in
an area stronger than the quality of what the development is. Property taxes are driven
higher by development in Brookhaven, but the quality and sustainability of new
developments are not taken into account. The main source of the pressure is the ever-
growing need for more and more school district taxes. As long as there are highly
competitive districts vying for development in their village, the developers will have an
easy time building more subdivisions and big box retail without regard for support
infrastructure. The idea of consolidation was proposed by former County Executive
Robert Gaffney in the early 1980s, but the plan met resistance and could not gain political
traction.

**Aggressive Commercial Development**

In Suffolk, the Tanger Outlets at the Arches stands as the culmination of an
aggressive policy to lure commercial development. Built with local opposition, the
project has since opened to a lukewarm response by the town and shoppers alike. When I
had first heard about the project, I knew that the development would stress the existing
traffic infrastructure, and I was curious to get Mr. Woods thoughts on the issue. I asked
Mr. Woods about the recent construction of the new outlet/commercial center, and he said that the new Tanger development was an example of “Officials trying to get development at any cost. It all goes back to the school districts and property taxes.” When asked why they would not widen Commack road, (the main access road to the Arches) He said that “the traffic impact analysis must have been off,” and would not elaborate as to why the analysis was not done correctly. When I pressed him, he smiled, and I understood. We did not discuss the matter again and moved on.

**Superfund Sites on Long Island**

I asked Mr. Woods about the Lawrence Aviation superfund site located in Port Jefferson, a small harbor village nestled on the north shore of Suffolk County. When asked about the site, Mr. Woods stated “Lawrence is weird. The town focused on making sure it was a dedicated, federally funded superfund site. The goal was to clean it to a level that was suitable to its prior use: Industrial. The problem is that there is no way to get big trucks there to support the industry. The local roads cannot support it.” Finding this interesting, I asked Mr. Woods about Setauket Meadows, a new residential townhouse development adjacent to the site. “Setauket Meadows is a bad idea. It depends on what they are building on the site. The requirements are woefully inadequate. Typically, the standard is to not be livable, but industrial, the prior use of the site. With manufacturing going overseas, there is now a higher standard for Superfund site cleanups. Is the standard of cleanup a residential development where children are playing? Or is the standard a parking lot or industrial site?” I mentioned to Mr. Woods that groundwater flows go from the Lawrence site to the new development, and I did not understand why
they would build homes there. He just said it was a bad idea, and the matter did not come up again. I realized that his smile in response to questions carried more weight and implications than most realize. When that smile arose again in our conversations I knew not to press the matter too hard.

**Local Government and the Future of LI**

After the discussion concerning Tanger at the Arches, I asked Mr. Woods about local government, and their role in development on the island. He mentioned again how Steve Levy is pushing for the retrofitting of sewage in Suffolk County, and how that shows local government’s role in development. The topic of conversation interestingly enough shifted from local governance to future Long Island development, so I asked Mr. Woods what his ideal scenario would be for the future. He envisioned the development of “Transit Nodes” as he called them, town centers where mass transit for regional and local movement can be easily accessed by the Island’s population. He pointed out that Patchogue; a village on the south shore, and Stony Brook, a university town on the North have the potential to develop into larger transit nodes. He said that Stony Brook should have development that will make the LIRR “work better for them.” This would help the State University of New York at Stony Brook expand, making a more regionally diverse school, but a more developed area. He predicted that Suffolk and Nassau County would be more built up, “…but not to the level of Queens. Something more like Hempstead, New York.” For this vision to happen though, he said that overall communities are “…oppositional, and do not like change. As I mentioned earlier, Suffolk is two different areas: Western Suffolk County has a population of around 1.1 million people while
Eastern Suffolk has 200,000. This leads to a difference in terms of views for the future of Long Island.”

Mr. Woods did stress the rising importance of the underdeveloped bus system on the Island. I asked if the bus has a social stigma, and he agreed, but he felt that also the system was both underdeveloped and under funded. Following this, I asked if leadership of the system has anything to do with Suffolk Transit’s failures. “The bus system is the worst in the New York region. The leadership has had a number of challenges and not enough resources. There is a social stigma with taking the bus, but ridership spiked this summer with $ 4 per gallon gas.” Below is a map of the Suffolk County Transit bus routes:

Source: Suffolk Transit

The bus system on the island will need to be further developed if communities will become more dense and developed. The bus system will also play an integral role in encouraging smart growth, and transit nodes. By removing Long Island’s reliance on the private passenger car, the Island can combat the rampant sprawl of the last 60 years.
Mr. Woods told me an interesting anecdote right before we went our separate ways. He told me about how he was in a town meeting about “traffic concerns” in Miller Place, a small hamlet of 10,500 people located east of Stony Brook. The meeting he described was clamorous, and he said that “I finally yelled at them. I said to them that what they have isn’t a traffic problem. A traffic problem exists in Queens. I told them to go to Queens and try to get around. You don’t have a traffic problem!” Clearly, the relations between the officials who are the faces of development and the community are most of the time strained at best. This was just over traffic issues, imagine trying to push large scale infrastructural overhauls in a town meeting.

Conclusions

My conversation with Mr. Woods was very, very interesting. I thoroughly enjoyed speaking with him, and got an insightful look into what is involved with developing Long Island. He was a nice guy, but professionally I imagined him being aggressive and stubborn. In the normal world these are traits in which you do not want to be called, but in the volatile environment that is Brookhaven Town government, they are traits that are necessary to survive. After speaking with Mr. Woods, I realized that development on the island was not part of a master plan or vision, but rather it is spurned on by the ideals of a select, powerful few. The school districts, always vying for more money, always want development to happen, as Woods put it powerfully “at all costs”, while local officials push for development to further their own agendas, regardless of the impacts. On the other side of the spectrum are the community leaders who always push for the status quo. Their NIMBY-ist ideals prevent any large scale, groundbreaking
developments that can truly change the direction of Long Island in the future. Sewage, mass transit and new roads are all prevented due to individual interests. This cocktail of factors all mix to give us the developmental milieu that Long Island is currently in: more subdivisions, and no infrastructure to support it. I asked Mr. Woods about the potential for new limited access highways and local railways that promote intra-island travel.

“There is no space”. He said. The situation almost makes one miss the ideals of the Robert Moses era, where if space was not there, create it.
Long Island does not follow any one master plan. In the 1920s to early 1960s, the growth on Long Island was centered mainly in Nassau County, and along the exits of the various Parkways that Robert Moses had built on the Island. Since the 1960s, the population on the Island has exploded with a flurry of growth in both population, housing and construction. Nassau has always been denser and more thoroughly developed, but Suffolk County still has a lot of room to grow. This chapter will look at the consequences of what happens when a regional plan is not followed, utilizing the route 347 corridor located in Eastern Suffolk County as a case study of unplanned and unforeseen growth.

Why was state route 347 chosen? In recent years, development along the corridor has intensified, with both state and local officials taking notice at the rate of growth. To show how the growth really has ballooned, below is a map showing the development along the route:
If you look along the route (highlighted in yellow), you can see that 41-61% of the development has occurred after 1980, especially in areas near Smithtown, Lake Grove, Stony Brook and Miller Place. This has impacted conditions on the road, and this section will look into the development along the route, and look at the plans put forward by officials to improve the area. First, we shall provide a brief history of the road, to understand the context of Mr. Wood’s and myself’s assessment of the current situation.

History of Route 347 and It’s Improvements

Route 347 is a major arterial serving a north central portion of Suffolk County. Its importance to this area of the County is underscored by the lack of other quality transportation facilities in the area. In the vicinity north of the Long Island Expressway, Route 347 is the only high quality transportation facility on which to travel from the eastern terminus of the Northern State Parkway, where Route 347 is in close proximity to the Long Island Expressway, to northern Brookhaven. Although Route 25 runs in an east/west direction, it does not serve northern Brookhaven like Route 347. Route 25 has a higher density of adjacent development which lends itself to more local traffic rather than commuting trips.19

The Port Jefferson/Nesconset Highway (state route of 347) was built in the year 1965, and was intended to be a limited access highway with service roads along its 144 ft. right-of-way.20 Due to a growing community, development along the corridor and a lack of funds, the original vision for a North Shore Expressway never took hold. Also on the table was an expansion of the Northern State Parkway to Orient Point, but this idea was also nixed. The options for 347 were mainly suggested by Robert Moses, who supported the idea of a limited access highway, and Dr. Lee Koppelman, another planner of the era.

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19 Route 347 Corridor Study: Northern State Parkway to Route 25A, NYS DOT Dunn Engineering Associates, 2001
20 http://www.nycroads.com/roads/NY-347/
As the results show, Koppelman won out, and 347 still to this day has its grade crossings (two roads intersecting without an overpass, resulting in traffic lights. Interstate Highways do not have grade crossings.) and stop lights.

Shortly after acquiring the rights to Route 347 in 1966 from the County of Suffolk the New York State Department of Transportation commissioned a Route Study from the present day Route 347/454 diverge to Route 25A. This study foresaw the potential for traffic growth in the area and proposed a limited access highway with service roads from Route 454 to Route 25A. This proposal included grade separated interchanges at major cross streets and the construction of the “Hauppauge Spur” connecting Route 347 directly to the Long Island Expressway. This proposal, however, was not implemented and with the exception of the addition of a third lane in each direction from the Northern State Parkway to the Route 454 diverge, improvements to Route 347 have been limited to spot intersection improvements. As a result of this, combined with rapid growth in traffic volumes, this corridor is experiencing capacity and safety deficiencies at this time.21

Improvements were put on hold for the next 30 years, but in the 1990s, with traffic quickly becoming an issue, the state set fourth an initiative to add cloverleaf interchanges in place of the stop lights at some key intersections as part of the LITP 2000 plan. However:

While the three “build” alternatives proposed did adequately address the twenty and thirty-year transportation issues projected for the corridor, the public reaction to the alternatives was not favorable. The public and many of the elected officials in the area believed that each of the build alternatives would

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have too much impact on adjacent properties, particularly due to the amount of property acquisition required.  

This public opposition prevented the route from becoming a limited access highway in a similar vein to the Northern State Parkway. The new proposal put forth in 2001 was for a toned down variant of the limited-access option, with less abrasive impacts on the community. This plan was slated to start in 2005, but as of writing, the plan has not become a reality due to further community opposition.

The Current Conditions

Source: NYS DOT

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22 Route 347 Corridor Study: Northern State Parkway to Route 25A, NYS DOT Dunn Engineering Associates, 2001
The above map shows the condition of the corridor currently. The red line is Rt. 347, and all around it is subdivisions, commercial development, with the main commercial anchor being the Smith Haven Mall in the Lake Grove area. The mall was constructed in 1969, four years after 347’s construction, and since then has been a main source of traffic on the route. Traffic analysis from 1991 had estimated that the section from Rt. 454 to Rt. 111 would be the most congested with traffic, but it turns out that a later impact assessment stated that the corridor from Moriches Road to Nicholls Road is the most congested. This is the location of the Smith Haven Mall and recently, various other commercial big box developments have been built. The fact that the impact statement got the predictions wrong is very telling, for it shows that the growth was both unforeseen and unplanned.
On the previous page there is a map showing 347 as it passes the Smith Haven Mall. Highlighted in Red are new (new, as in built within the last ten years) commercial developments, and in blue are subdivisions that have been recently constructed. All of this development has had a direct impact on the traffic of the road. As mentioned previously, the mall was built earlier; it is highlighted due to its recent expansion/renovations that include more big box store developments.

Above is route 347 as it intersects Pond Path to the lower left and Wireless road near the top right corner of the map. The natures of these developments are very varied. The development along Belle Meade Road is a rather large extension of SUNY Stony Brook Hospital (center), consisting of medical offices. Also built in conjunction with SUNY
Stony Brook were various light industrial shops, and a complete upper class subdivision. In the lower right there are three big box stores and a gated community. In the upper left corner of the map, there is another gated community, a Wal-Mart (which was much protested but finally accepted), and two other big box developments.

**What Does This All Mean?**

To the casual observer, all these stores are a good thing. Who can argue with low prices within a short drive of people’s homes? Some would also advocate for more of this type of development, saying that this development would be beneficial to the economic growth of the corridor and community as a whole. These are valid points, but they are the metaphorical equivalent of seeing the individual trees but not the whole forest. This is the story of development on Long Island: Officials and developers only see the quick, immediate future, and do not realize the long-term ramifications of their actions. Imagine if you will, that we zoomed out the scale of the map. Picture what this means for the corridor as a whole. Pockets of new development occur east and west of both sites that I have highlighted. All of this has been done without any substantial infrastructural improvements to the road itself. Commuters who are trying to access the Northern State Parkway at the western terminus of the route have seen their commute time get exponentially longer with each passing year. Long story short- more subdivisions/stores = more traffic. If no action is taken, the conditions will only get worse:

The arterial analysis performed to assess year 2030 conditions without improvement indicate that driving from one end of the corridor to the other in the peak direction will take 74 minutes in the morning (westbound) and 125 minutes in the evening (eastbound). Congestion on Route 347 that cost motorists 43 million dollars in 1991 in recurring and non-recurring delays and excess fuel consumption will increase to 99 million dollars by 2030 if no improvements are provided.  

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23 *Route 347 Corridor Study: Northern State Parkway to Route 25A*, NYS DOT Dunn Engineering Associates, 2001
The NYS DOT’s Vision for Route 347

The NYS DOT has realized that conditions on Route 347 have seriously degraded. In February 2009, the NYS DOT presented their plan for improvement to route 347 to the communities via a colorful and graphic filled power point presentation. The presentation stressed the “green-ing” of the route, and the development of a more pedestrian/mass transit friendly route. The presentation also said that the state will add additional roadway lanes, new 45 mph speed limits and utilization of “Intelligent Transportation System Technology” that consists of “smart signs”, coordinated traffic signals, sensors and “smart” signs. Below is the state’s master plan:

Above, you can see that the state is advocating the creation of “downtown” nodes, and areas that encourage easy pedestrian access with commercial storefronts along sidewalks. On the next page are renderings of what the state hopes to achieve:

24 Vision Plan for a Green Route 347, NYS DOT, February 2009
The plan also calls for increased reliance on the Suffolk County Transit bus system, via the use of offset bus stops and HOV lanes that would allow buses a lighter trek from local stop to stop. Overall, the states goal is a greener, more community-integrated 347.

Is The Green Vision for Route 347 Enough?

To answer the heading’s question, no. As former Commissioner Woods put it: “The proposed plan doesn’t do enough as a sole alternative route for the LIE. Route 110 (to the east) and 112 in Melville (to the west) all have alternative routes. There is no alternative route to 347.” This lack of alternative roads to 347 means that the road must be able to handle not only local use traffic, but commuter uses as well, in a quick, efficient manner. The state plan, while appealing, almost ignores the use of 347 as it stands today: as an alternative route to an expressway. Expressways do not have stoplights, nor do they have storefronts along sidewalks. While Commissioner Woods advocates for the creation of “downtown nodes”, I was surprised on how the point was missed.

Route 347’s issues are much deeper than greening and widening. The problem with the state’s plan is a lack of political teeth/will to truly evoke change along the road. It does not do enough to get to the real source of 347’s ailments: uncontrolled growth. The improvements are not at all bad, and much needed, but they do not get to the heart of
the issues. This vision for a greener route 347 could set a positive precedent on Long Island, for the creation of downtown nodes and increased pedestrian/transit roles would take development in another direction. However, the realities of the current situation are not being addressed. Turn 347 into the state’s vision, but at the same time provide what is needed: a limited access highway.

When I asked Mr. Woods about the possibility of building a new limited access highway out in Suffolk County he said “there is no place for a limited access highway. Out east you have the Sunrise (State Route 27). Update that. The highways you’re thinking of we’re designed for defense. They aren’t necessary now. It was a brilliant plan.”

Mr. Woods is a man who knows the realities of Long Island Politics. There really is no place for a limited access highway out in Suffolk that could run parallel to route 347. Nor is there a politician who is willing to risk his position even proposing it. The fact stands however that saying no place for a limited-access highway is not the same as no need for a limited-access highway. While political realities must be addressed when planning, one must also take into consideration needs. Greening is pretty, useful, and a step in the right direction, but simply put, the area in the future will need another 347-like corridor that will provide quick east-west access along the northern section of the Island.

Conclusion

The realities of the situation must be accepted. The state has realized there is a problem, but the community shot down the proposals to solve it. The state has proposed a much watered-down plan, but it is not enough. It is easy for people to sit back and throw suggestions out. Monday morning quarterbacks on the sidelines of Long Island’s
developmental politics will criticize any plan that is given, and NIMBY-ism will fight to preserve the status quo. The fact still remains however, that with route 347, development ran far past the roads capacity, and continues to do so. The state’s plan is a step in the right direction, but it is putting off the inevitable. Eventually there will need to be a large scale overhaul of the whole corridor that will be both intrusive, expensive and most importantly, necessary.
Chapter V: Superfund Sites on Long Island

First, to understand Superfund sites on Long Island, one must understand what exactly a Superfund Site is. Provided below is the EPA’s definition:

Superfund is the name given to the environmental program established to address abandoned hazardous waste sites. It is also the name of the fund established by the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (CERCLA statute, CERCLA overview). This law was enacted in the wake of the discovery of toxic waste dumps such as Love Canal and Times Beach in the 1970s. It allows the EPA to clean up such sites and to compel responsible parties to perform cleanups or reimburse the government for EPA-lead cleanups.25

These locations are mostly found on former industrial sites. On these sites, volatile chemicals have permeated into the ground, contaminating the soil, groundwater and all else in the expanding plume. Dumping and seepage of various chemicals that were by-products of the former land use all contribute to the pollution plume, and the result, to put it bluntly, is a costly mess for local, state and federal officials to wade through. These former industrial sites were put in operation before the time of strict environmental regulation that most companies (ideally) adhere too. Thousands of leaky barrels filled with hydrofluoric acid slowly spilling over the course of 50 years into the ground really can add up to a big problem.

Long Island’s Superfund Sites

On Long Island, 26 hazardous waste sites are on the National Priorities List; 15 in Nassau County and 11 in Suffolk, including the former Roosevelt Field in Garden City, where Charles Lindbergh took off for his historic trans-Atlantic flight in 1927.26 These sites are a relic of Long Island’s industrial and manufacturing past, a testament to an era

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25 US EPA, Superfund Basic Information
26 At Some Superfund Sites, Toxic Legacies Linger, David Holmberg, New York Times January 10th 2008,
that is now gone. During the course of area’s developmental story, the aviation history of Long Island helped foster the growth of many supporting industries, from aircraft component companies to the actual airplane producers themselves. Below, Long Island’s Superfund sites:

Amongst the forest of the island, massive sites such as the 635 acre former Grumman Plant in Bethpage, New York rose and helped fuel economic growth throughout the Cold War era.
For planners, these sites are a volatile mix of sensitive politics on both the community and local level and extensive cost to rehabilitate. These two factors alone contribute to the latency of progress that takes hold. What results are former industrial sites that lay dormant for decades until town officials and planners can figure out a use for them. As Former Commissioner of Planning Woods said, “With manufacturing going overseas, there is now a higher standard for Superfund site cleanups. Is the standard of cleanup a residential development where children are playing? Or is the standard a parking lot or industrial site?”

It is this question that poses the biggest problem for planners. Near the previously mentioned Grumman site for instance, there has been the recent discovery of contaminants that pose a health hazard for the subdivisions adjacent to the large site.

27 Toxins from Old Grumman Site Contaminating Bethpage, Newsday, March 15th 2009
When sites such as these fall into a state of contaminated relapse, local officials feel justified in their lack of action. If you rush development on a former superfund site, the new investment can be tainted further down the road by newly arising contaminants.

These sites are on large tracts of land, and that is a very attractive prospect to developers on Long Island. In an area that has such constraints on the amount of clear, open space available, something like a 600 acre site in the heart of Nassau County has developers frothing at the mouth. They lobby legislators for the clearance to build, but the quagmire of bureaucratic red tape and indecision leads to ultimately nothing. This is not necessarily a bad thing though. The fact that legislators are so indecisive in constructing on the site is positive, for as it was said earlier, if development is rushed, the community can pay later.

**Long Term Abandonment**

Why do these sites lay dormant for so long? Well, besides the factors involving local government, there are funding issues as well. Environmental Protection Agency officials and environmentalists say the Superfund program has been chronically underfinanced since a tax that supported it expired in 1995.\(^\text{28}\) With this tax expired, cleaning at over 50 superfund sites has basically stopped, with two being located on Long Island alone. Lawrence Aviation, which will serve as a case study of development near Superfund sites in another section of thesis, along with Old Roosevelt Field in Garden City, New York both will be receiving funding for clean up thanks to the American Recovery Act.\(^\text{29}\)

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Not only to Long Island, but the nation as a whole this is very important. If officials want to rebuild their infrastructure, and develop the land in a responsible, sustainable manner, then it is only logical to clean up and nurture development on these massive tracts of land on the Island.

In most cases, this recovery act funding will accelerate the hazardous waste cleanup already underway at the sites and fund new clean-up projects. It will also jumpstart the local economy by creating jobs in the site areas. “EPA has an answer to these challenging economic times,” said EPA Administrator Lisa P. Jackson. “Under the Recovery Act, we're getting harmful pollutants and dangerous chemicals out of these communities and putting jobs and investment back in.” The federal Superfund program was created in 1980 to clean up uncontrolled hazardous waste sites that pose unacceptable risks to human health and the environment. Superfund sites are often found in industrial areas hardest hit by the recession. Superfund cleanups are major construction projects that employ thousands of workers nationwide. Since it began, the program has completed construction of remedies at more than 1,060 of the 1,596 sites on its National Priorities List. The Superfund program is implementing new or expanded cleanup actions at 50 sites around the country with recovery act funds. 30

Upon Second Look…

On the surface, development of these sites are integral to help usher in the next stage of Long Island’s development. More development means more property tax, thus allowing the government to reinvest more into the local area. However, a deeper examination of the situation is required. A developer cannot be assured that recontamination will not happen. A lot of the times, developers will think a site and is “clear”, and later have their investment ruined, or in a worse scenario, they do not care as long as they cut a healthy profit. Here is where the problem becomes murky: If

30 US EPA Newsroom, $600 Million in Recovery Act Funding to Clean Up Hazardous Waste Sites, 4/15/09
development on a Superfund site is so volatile, why push for it’s rebuilding in the first place? Superfund sites are not ripe for development, as the constant contamination shows us. That does not matter though. The culture of developers on Long Island is unfortunately a greedy one. Developers main goal is to build, and cut an healthy profit once their subdivisions are completed. On Long Island, with the physical space rapidly becoming limited, developers are choosing every corner of undeveloped land to build on. This frenzy to build leads to some poor site decisions (which will be examined in the next section.)

The Stimulus funds will help accelerate the progress on two of the Superfund sites on Long Island. Upon completion of the clean up, communities will have large parcels of land that will be “ripe” for development. This is where the local officials will be at a crossroads. They can go the traditional Long Island development path and either build a new subdivision or throw down some big box stores with a Chili’s restaurant in front of the sprawling parking lot, or they can stop and think. As Mr. Woods has said earlier, what is the standard of development? If a former aviation plant is sitting in the middle of Bethpage, should the site continue the previous industrial land use, or turn a new page? Will recontamination occur? These are the questions that local officials must ask themselves. The social stigma connected to all of these sites is rather large, but that is only to those in the know. Many residents on Long Island do not know much about the Superfund sites on Long Island or the development that takes place near them. That is the reality. When buying a piece of land on Long Island, it is wise to investigate the prior uses of the place you are considering. The last thing any homeowner wants to hear is that their backyard is the home to a leaky jet fuel tank.
Conclusion

What does this all mean? In short, it means that the current state of Long Island’s development frenzy is flawed. Developers need to stop pursuing development at all costs on the Island. If they don’t calm down their push to build, the sites in which they choose will not be properly investigated, and problems will arise. These problems consist will impose costs to the people who bought the land and the taxpayers who must foot the bill. As it is, local infrastructure cannot support all the home building and commercial development (as the case of Route 347 shows us), and if you compound that issue with the issue of land quality and the prevalence of Superfund sites, then one has a massively expensive problem on their hands. In the past development on Long Island was easy: Buy a farm, clear the farm, build houses, reap profit. With most of the farms west of William Floyd Parkway purchased, development is not as formulaic as it once was. It is time for developers to realize this.
Chapter VI: Lawrence Aviation: A Case Study in Superfund Land Use on Long Island

The following is a case study of the former Lawrence Aviation Plant. This is a Priority-listed Superfund site in Port Jefferson that is located within 2 miles of my parent’s house in Setauket, New York. Up until 2005, I had never even knew it existed. The following situation has prompted me to write this.

About four years ago, my family was going to buy a home in a beautiful, new development. The realtor, a pretty, middle-aged woman who was pushing for the sale, did not disclose the Superfund site’s location in relation to the house she was trying to sell. All she told my father was “the reason why the houses are so loaded with amenities and are so cheap is because the land used to be industrial.” As it turns out, the Lawrence site was under half a mile south of the new subdivision, named Setauket Meadows. Both the realtor or the corporate developer, The Northwind Group, did not disclose to my family two facts: First, the fact that there was a Priority-listed EPA Superfund site less than half a mile from their potential new home, or that hydrologic studies show that groundwater flows from the Lawrence Site north on a downhill gradient towards the Long Island Sound (Groundwater is about 175 feet below the ground surface and flows north towards the Long Island Sound)\(^31\). right through the Setauket Meadows development. The Northwind Group pursued an expansion to their profitable Setauket Meadows, but could not get the building permit due to the condition of the soil. The soil that blocked their building permit was 300 feet away from the first completed phase of construction. After

\(^{31}\) *Public Health Assessment for Lawrence Aviation Industries*, Agency for Toxic Substances and Disease Registry
the story was broken by News 12 Long Island, the realtor told my father that “this will ensure no new construction, thus preserving a forested view.”

Above, a map of Lawrence and Setauket Meadows. While this story is interesting, it has broader implications for land use policy on Long Island. Before we discuss those implications, let us gain an understanding of the Lawrence Site itself, and proceed from there.

**The History of Lawrence Aviation**

In describing Lawrence Aviation’s history, the town of Brookhaven sums it up best: Lawrence Aviation has a long, unhappy checkered history.\(^\text{32}\)

The Lawrence Aviation site was once a turkey farm owned by Ledkote Products, a New York City company that was Lawrence Aviation’s corporate predecessor. Ledkote Products moved its operations, which included production of lead gutters and spouts for roof drains, to the site in 1951. In 1959, Ledkote Products changed their name to Lawrence Aviation Industries, Inc. (CDM 2000). About this time, the

\(^{32}\) Town Of Brookhaven Rezoning Proposal for Lawrence Aviation, 2006
facility began producing titanium sheet metal for the aviation industry, a process that continued until approximately 2003. At one time, Lawrence Aviation employed over 200 people. As of March 2004, production at the facility halted, and fewer than six employees remained at the site (US EPA 2004).  

North of the site, 26-40% of the homes were mostly built past 1980. This is an important statistic, for as the above history shows, Lawrence started operations in 1959. The fact that they still built homes in the area after investigations into Lawrence began in 1979 stands as a testament to Long Island’s aggressive stance towards development.

In the past, the areas of concern included storage drum areas, unlined lagoons and cesspools. A pile of old transformers was also identified on-site. An oily liquid was leaking out of some transformers. More than 10,000 drums on-site were in disrepair, improperly stored and leaking onto the ground surface. Acid sump sludges, salt waste, tetrachloroethene, hydraulic oil, zyglo penetrant, solvents, hydrofluoric acid and trichloroethene were reportedly contained in the drums. In 1980, SCDHS ordered Lawrence Aviation to remove the drums.

Source: US EPA

SCDHS and NYS DEC have been investigating Lawrence Aviation as a possible source of environmental contamination since the 1970s.

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33 Public Health Assessment for Lawrence Aviation Industries, Agency for Toxic Substances and Disease Registry
34 The Long Island Index, Interactive Map
35 Public Health Assessment for Lawrence Aviation Industries, Agency for Toxic Substances and Disease Registry
Also:

According to a newspaper article (Newsday 1974), a “cloud” of gas was emitted from three or four smokestacks and spread for about 20 minutes over a ten-block area south of the site. Newsday reported that the gas was generated “when workmen on a lunch break left a sheet of titanium in a vat of nitric acid and water too long.” The newspaper reported that the cloud contained nitrogen dioxide, nitrous oxide, and possibly nitric acid, but the article does not indicate that any air samples were actually collected or analyzed during the brief period of the release. According to the news article, seven firemen and five children were treated for minor skin and eye irritation as a result of exposure to the gas.\(^\text{36}\)

As one can clearly see, Lawrence Aviation is a mess. The site has had a long history of problems in the community, and most people still are not aware of its existence.

\(^{36}\) Public Health Assessment for Lawrence Aviation Industries, Agency for Toxic Substances and Disease Registry
Lawrence Aviation’s Legal/Financial Troubles

While the above paragraphs describe Lawrence’s environmental issues, the company itself has been bogged down in legal and financial woes as well. The company used to be a $300 million dollar enterprise with over 350 employees, but in 2003 it was reduced to 12 employees and owed Suffolk County is so many back taxes that the county confiscated titanium components to pay the owed amount.

Lawrence and Mr. Cohen also face millions of dollars in tax liens and judgments against the property. Capt. Theodore Sarian of the sheriff’s department said that the titanium sheets at the plant would be auctioned sometime in February to satisfy some of the state's claims. After a previous seizure, Mr. Cohen paid the tax liens and got his titanium back. Officials familiar with the Lawrence Aviation case said that one thing the county would almost certainly not do was seize the property itself. Doing that could make the county responsible for cleaning it up, they said, at a cost that could be many times greater than the back taxes.  

Below, a map of the complex land ownership of the Lawrence site:

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*Suffolk Plant: Big Mess or Minor Problem?* John Rather, January 15th 2006 New York Times
Currently, the status of the site is in a limbo of sorts. Although the County of Suffolk could have exercised its powers over tax default properties and acquire ownership, it has wisely chosen not to do so. Acquisition prior to the cleanup and elimination of liens would make the County liable for all of the debts unless the County could be exempt and held harmless from any liability by state and federal law.\textsuperscript{38}

The contamination issues cause concern outside the plant’s gate. Rob Africano, 43, who lives on Midland Avenue across the street from Lawrence Aviation, said he bought his house for his family three years ago. "Sometimes there’s an odor," Africano said, sitting on the steps of his front porch one morning last week. "It smells like chemicals. Last year we had a white powder all over the lawn." The substance was never identified, he said. "Of course we worry," Africano said. "We have six children, from [ages] 15 to 2. We're going to be here a while. We didn't know when we moved in this is a Superfund site."\textsuperscript{39}

As the above quote shows, the realtors did not tell Mr. Africano about Lawrence Aviation and the potential dangers of living near a Superfund site. The fact that when Mr. Africano purchased his home (in 2003) Lawrence was already a NPL Superfund site since the 1980s and he wasn’t told shows how ignorant the general public is of the situation. As New York State Assemblyman Steve Englebright said in April of 2006:

"It's mostly a sad story, for the employees, the management and the neighbors," Englebright said. "This once reasonably remote and isolated neighborhood became suburban, even urban, and they [Lawrence Aviation] were an anachronism."\textsuperscript{40}

Mr. Englebright is also on record as saying earlier that year:

State Assemblyman Steven C. Englebright, a Democrat from nearby Setauket who is often outspoken on environmental issues, said that some contamination was inevitable at the plant, given its long years of

\textsuperscript{38} Town Of Brookhaven Rezoning Proposal for Lawrence Aviation, 2006
\textsuperscript{39} Aviation Anachronism Spawns Worry, James Bernstein, Newsday, April 17\textsuperscript{th} 2006
\textsuperscript{40} Aviation Anachronism Spawns Worry, James Bernstein, Newsday, April 17\textsuperscript{th} 2006
heavy industrial use. "Most of the contamination is in the vicinity of how far they could throw a bucket of liquid out the back door," he said. "This is not Love Canal."\(^{41}\)

His change in tone regarding the subject is interesting to say the least.

**The Northwind Group and Development Near the Lawrence Site**

As mentioned earlier, development near Lawrence has been business as usual, with 26-40% of homes adjacent to the site built after 1980.

Amongst these new homes is the Setauket Meadows subdivision built by the Northwind Group, who, according to their website:

…Takes pride in delivering a quality built home for gracious and carefree living. We place a special emphasis on preserving the natural environment where our communities are built. Our homes are designed with an eye for luxury and comfort. Our recent townhomes won the prestigious Long Island Builders Institute "design and build award for luxury condominiums."\(^{42}\)

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\(^{41}\) *Suffolk Plant: Big Mess or Minor Problem?* John Rather, January 15\(^{th}\) 2006 New York Times

\(^{42}\) The Northwind Group.com, About
I called Northwind, and after much holding they were kind enough to put me on with Jim Tsunis, the company founder who, according to their website “facilitated the transplanting of over 100 Eastern Cedar Trees. Setauket Meadows voluntarily transplanted these trees, thereby preserving the esthetics of the community.” The aesthetics of the community are rather beautiful, as the below picture demonstrates:

When Mr. Tsunis spoke to me, he seemed surprised that someone wanted to speak with him. I told him who I was, what I was doing, and he said he would help me. He made it clear that he builds multi-family units, and when asked what sort of sites he picks to develop he chooses “areas close to the downtown, former industrial sights are our targets.” This jumped out to me, for it means that this development firm specifically looks for these types of sites.

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43 NorthwindGroup.com/about
Above, the site plan for Eastport Meadows in Eastport, New York, another Northwind Group property. I asked about the success of Setauket Meadows, and he said that they sold out. When asked about how they sell the units, they use an “in house” real estate process. After these questions, I asked if he knew the land he was purchasing was near the Lawrence Aviation Superfund Site. He stumbled, not expecting the question and said “I don’t know. I didn’t know. I did not know the site was there. What do you mean near? The plume is no where near Setauket Meadows.” It was interesting he specifically jumped to discussing the pollution plume of Lawrence without me prompting him to do so. I asked if he planned an expansion to Setauket Meadows but the town wouldn’t allow it, and he initially said yes, but then changed his answer to “No.” I asked him if he told his buyers that their houses were located near Lawrence, and realized the implications of what I was asking, he said to me that “Lawrence is messy and confusing…I am getting uncomfortable talking about Lawrence Aviation. I am uncomfortable talking to you about Lawrence.” I told him everybody is, and he asked me who I am, where I was from, and asked me the school I attended, even though I had already told him all of that. He also asked how I got his number, to which I responded that I found it on his website. He seemed annoyed at this point, so I asked him about the other developments he had. They are all selling, and my final question was if Lawrence had any lawsuits. He said no.
Apparently a class action suit was placed a couple of years back, but I cannot confirm the validity of this claim. I appreciated the fact that he actually made the effort to talk to me, regardless if he seemed annoyed from the start. When pressed on Lawrence the sound of his voice had the tone of discomfort, and to be honest he seemed embattled talking about the subject.

**Realtor Responsibility**

After speaking to Mr. Tsunis, I looked up houses around the Lawrence Aviation site on MLSLI.com, a real estate website for Long Island Real Estate Agents to post listings. After selecting some house listings that were close to Lawrence, I called the agents who were selling the houses I had selected. Out of seven agents I spoke to, only two knew what a Superfund site was, and of those two, both knew about Lawrence Aviation. However, it is important to note that the only reason they knew of the site was because they both said separately are local residents who read the local paper. One agent said that “only people from the Stony Brook or Port Jefferson area would know about it. If you are from another area, why would you know about it?” The first agent I spoke to got very defensive when I asked if she knew there was a Superfund site across the street from her listing. She did not know what a superfund site was, and upon my explanation, she begun asking me “Why would I know that? How would I know? That’s not my job, I just sell the houses…it’s the buyer’s responsibility to know that stuff.” When asked if an engineer who assesses the house would know about the location of Lawrence she said “That’s not his job. No. Why would he know that?” We said our customary goodbyes and she got off the phone all huffy. Text does not do her tone justice.
The next woman I spoke to also told me when asked about Superfund sites “Super fun site? Yea…well there is a bowling alley across the street. I guess that’s a Super fun site. You’re funny.” After explaining to her that I said Superfund, and what that term meant, she did not find me too funny anymore. She too got defensive and she told me that it’s the buyer’s responsibility to know about that stuff, and until I assured her that I am not holding anybody accountable, and was just taking an inventory of the knowledge realtors knew of the site. “Oh…well, across the street is a bowling alley and strip mall, there is no toxic site there.” The third realtor was not “aware of the site”, and the fourth knew of the site, but admitted it was due to his local ties.

The fifth realtor was extremely interested in what I had to say. He seemed almost fascinated that there was a Superfund site across from the house he was selling, and did not know about it. He told me that when he represents the seller, he can’t exactly disclose knowledge of the site, because he has to present the house “without prejudice.” The ethics of this is questionable to me, but he compared it to a defense attorney defending his client. Realtor number six lived in the area, knew of the site, but had he known he would not tell his sellers. He said that it was a local knowledge, and if you live another area “why would you know it?”

Realtor seven was one of my favorite phone calls of the day. He said he was on his driveway at home about to end his day, but he wanted to call me back. I told him that I was not a buyer, but a student and he seemed highly intrigued. I told him about the site, and he had no prior knowledge of it, but made it clear that “if somebody asked, I would tell them. I care too much about my license and job to not tell them. That is not right. I am trying to support my family. I am bound legally and by my values to disclose that
information to someone.” I told him that he was one of the few positive responses I had that day, and he said “I understand, and I respect what you’re doing. You’re a student; you’re trying to bring awareness. I live by the motto treat others as you’d want yourself treated. There is no need to get put off by others.” He proceeded to offer anymore help if I needed it, and wished me luck.

**Conclusions**

The conclusions from this chapter are important to the future of Long Island. The case study of Lawrence is powerful enough to speak for itself. A business that became a relic of the past as times and policy changed, Lawrence created a mess in which the owners and county do not want to touch. Thanks to $600 million in stimulus money going to 50 National Priority List Superfund sites, clean up has resumed and will take decades to restore the land.

The call to the Northwind Group was most revealing. While I cannot make any broad accusations, it is rather hard to believe that Mr. Tsunis did know about Lawrence, being that the land next his development is zoned Industrial, especially when his group “targets” industrial sites to build on. Why the town allowed for Setauket Meadows I cannot say, but the subdivision was built. His tone at the mention of Lawrence completely changed, and the way he immediately responded “What do you mean near? The plume is no where near Setauket Meadows!” denoted that he has been asked about that before. Seriously, how doesn’t a purchaser of land know about a NPL Superfund site that’s been investigated by the EPA since 1979?

The calls to the realtors were the most surprising. Besides the less than lukewarm response I received, their lack of knowledge about not only Lawrence, but Superfund in
general shocked me. I understand their gruffness towards me, for I was someone intruding on their bottom line, I get that. What I do not understand is how most were in the business of selling land, and did not look into the conditions surrounding their investment of both time and money. Only one agent alluded to the ethical and legal issues of telling the buyers about sites such as Lawrence, and I respect him for that.

My recommendation is a simple one. Make knowledge of the superfund sites more widespread, and let the public dictate what they want to do with the areas. The realtors, people who broker land for their livings, do not know what a Superfund site is. That is a telling sign of the lack of public knowledge of these sites. It is too late to change development around Lawrence, but it is just plain wrong to construct a new subdivision to the north of the site in 2005. To move forward, we must understand the past. As the Long Island Index puts it best, Good information, presented in a neutral manner, can move policy.\textsuperscript{44}

\textsuperscript{44} Long Island Index