

# The New York City Watershed Economic Impact Assessment Report

*Determining Impacts and developing options  
regarding NYC's Land Acquisition Program in Delaware County*



## Executive Summary

May 2009

## Acknowledgements

Completion of the **New York City Watershed Economic Impact Assessment Report** was supported by many different parties within the community and beyond. We would like to thank the following who committed time and resources toward this project:

The Delaware County Board of Supervisors and the Delaware County Chamber of Commerce jointly commissioned the Report and provided information, advice and insight at various points throughout the assignment. We extend our thanks for their leadership and foresight in the undertaking of this effort.

The County's external advisors, specifically Professor David Moreau of the University of North Carolina, Dr. John Nolon of Pace University and Professor A. E. Luloff of Penn State University, provided extensive critical comments during planning sessions in November 2008 as well as feedback and critique of the Interim and Final Reports. These third party subject matter experts held the County and its consulting team to high standards and academic rigor and introduced new and innovative ideas to address watershed impacts from beyond the Catskill Region.

Many thanks to our Key Informants, Focus Group participants and those citizens who attended our Community Meetings held late in 2008. Their perspectives provided a wealth of additional information and context beyond our economic research, analysis and modeling. The Community's interested participation has also provided an indication of the current social fabric of the County, much of which warrants further investigation and validation in terms of the changing nature of Delaware County's community character.

The following County Departments and Agencies are also acknowledged for their on-going input and assistance in undertaking the New York City Watershed Economic Impact Assessment Report:

### Delaware County Departments:

- Economic Development
- Planning
- Real Property Tax
- Watershed Affairs

### Delaware County Agencies:

- Cornell Cooperative Extension of Delaware County
- The Delaware County Soil and Water Conservation District



Figure 1 - Farmland - Town of Hamden

A special thank you to Water Resources Consultant Steve Pacenka for his assistance in developing the project's terms of reference and scope and his on-going feedback, insight and suggestions for improvement. Finally, we wish to thank the special efforts of the staff of the County's Departments of Planning, Economic Development and Watershed Affairs for their dedication and support in gathering and confirming information sources, offering advice and keeping us on track over the course of this ten month endeavor. Their commitment was instrumental in ensuring our work was both thorough and comprehensive in assessing the impact of the Watershed's presence on the people and communities of Delaware County.

*“In the long history connecting New York City and the Catskills, the construction of the water supply most directly suggests an imperial relationship, for the reservoirs most clearly represent the ability of the city to control space in the mountains....Not unlike Rip Van Winkle and brown trout, the reservoirs would become naturalized, accepted by locals as part of the Catskill identity, integral to the landscape. Almost immediately upon completion, the reservoirs would elicit both resentment and pride among Catskill residents, conflicting sentiments that represented the complicated nature of the collaboration that made them.”<sup>1</sup>*

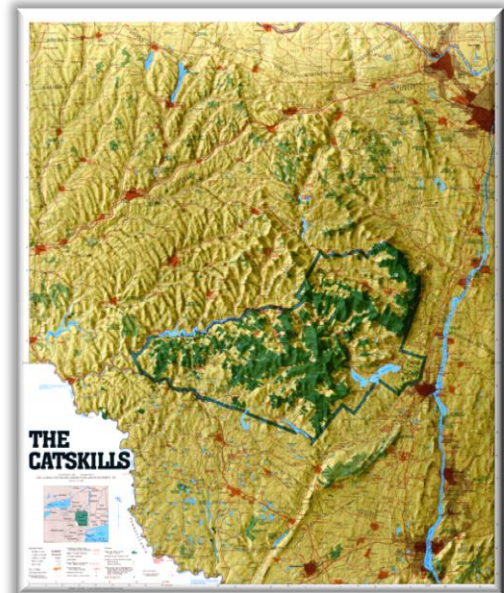


Figure 2 - The Catskills

**Overview**

The New York City Water Supply, which provides 1.3 billion gallons of water per day to New York City and adjacent communities, is comprised of two separate watersheds generally referred to as the East of Hudson and West of Hudson watersheds. Covering over 2,000 square miles of eight counties in upstate New York, the New York City Water Supply is the largest unfiltered water supply system in the world. Since 1992, New York City has been required to receive and maintain a Filtration Avoidance Determination (FAD) from the U.S. Environmental Protection Agency (EPA) in order to retain an unfiltered water supply.

The FAD imposes a multitude of requirements upon the City of New York to ensure the protection, health and safety of its water supply, and has generally been reviewed on a five-year basis, in addition to continual monitoring, to ensure the adequacy of the watershed management programs as well as the Watershed Rules and Regulations. It was recently estimated that to-date, New York City has spent nearly \$1.5 billion since 1997 on watershed protection and management.

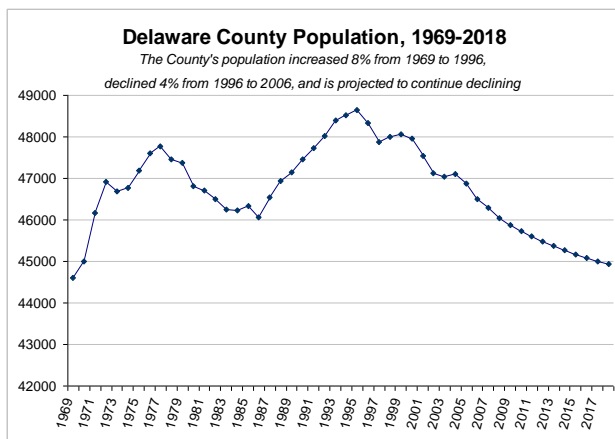


Figure 3 - Delaware County Population

Through its compliance with the dictates of the FAD, New York City is able to avoid the construction, maintenance and operation of a water supply filtration facility. The operation and maintenance expenditures necessary to manage such a facility have been estimated to run over \$400 million annually. New York City Comptroller William Thompson Jr. estimates it would cost \$6 billion to \$10 billion to build a filtration plant for the Catskill-Delaware watershed. A \$10 billion plant would add \$730 million per year in debt service expense according to Thompson’s office.<sup>2</sup>

<sup>1</sup> Making Mountains, *New York City and the Catskills*, David Stradling, University of Washington Press, 2007 p.142

<sup>2</sup> The Legislative Gazette, “Environmentalists say New York City’s drinking water could be in danger”, Anna Helhoski, March 30, 2009, p.13.

In order to manage the potentially conflicting goals of New York City, seeking to justifiably safeguard their water supply, and the counties, towns and villages which host the New York City watershed which are equally justified in their concern over the continued viability of their communities; these parties, forever deemed partners, entered into a historic Memorandum of Agreement (the MOA) in 1997. A primary tenet of the MOA being “the goals of drinking water protection and economic vitality within Watershed communities are not inconsistent and it is the intention of the Parties to enter into a new era of partnership to cooperate in the development and implementation of a Watershed protection program that maintains and enhances the quality of the New York City drinking water supply system and the economic vitality and social character of the Watershed communities.”

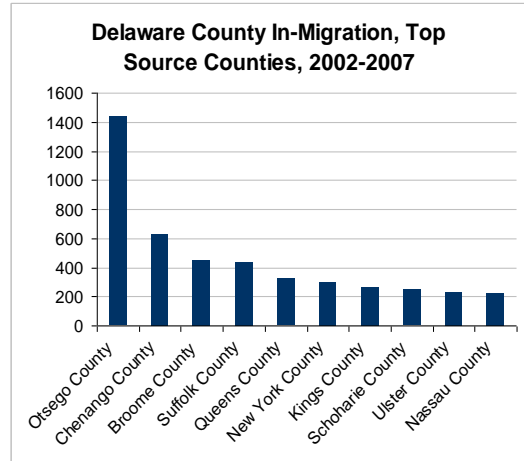


Figure 4 - Delaware County In-Migration

In June of 2007, New York City received a fourth Filtration Avoidance Determination from the EPA for its water supply system, extending to 2017. One of the more contentious components of this most recent FAD was the insertion of a \$300 million, 10-year Land Acquisition Program (LAP). While land acquisition has been a component of previous FADs, the scale and scope of the new LAP was entirely unprecedented in relation to earlier FADs issued to manage and regulate the New York City watershed as well as other unfiltered water supply systems in New York State.

Delaware County, as host to the majority of the land area comprising the West of Hudson watershed, was concerned about the economic and social ramifications that a \$300 million land acquisition program might potentially have upon the long-term sustainability of its communities, businesses and residents. From the perspective of Delaware County, the geographic constraints of the region, in conjunction with the established Watershed Rules & Regulations, provided adequate safeguards for ensuring the compatibility of likely future development with the over arching goals of water quality preservation. The implementation of the new \$300 million land acquisition program was therefore perceived by Delaware County as having the potential to go beyond a “tipping point” whereby the long-term viability of its communities would be endangered.

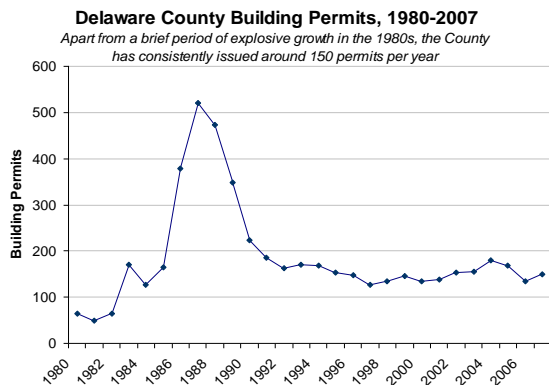


Figure 5 - Delaware County Building Permits

In response to its concerns, Delaware County commissioned an independent analysis of the potential direct and indirect impacts of the new \$300 million Land Acquisition Program. In light of the fact that no previous assessment of the potential impacts such a large-scale program might have upon local communities had been undertaken, Delaware County sought an independent, unbiased analysis of the potential positive and negative impacts of the \$300 million land acquisition program.

This analysis, conducted by Downeast Development Consulting Group in partnership with Economic Modeling Specialists, Inc. (EMSI), Ekistics Planning and Design and JPH Consulting, has sought to analyze the

potential direct and in-direct impacts of the New York City Land Acquisition Program from a completely objective standpoint. The methodologies employed in this analysis are summarized in Section 12 of the Report. This was augmented by research of documents relating to the 1997 Memorandum of Agreement (MOA), past and current FADs, the Watershed Rules & Regulations, articles, papers and other documents relating to the New York City Watershed, public and proprietary economic and social demographic statistics and data as well as information and data provided by the client, as cited within the body of the report, as applicable.

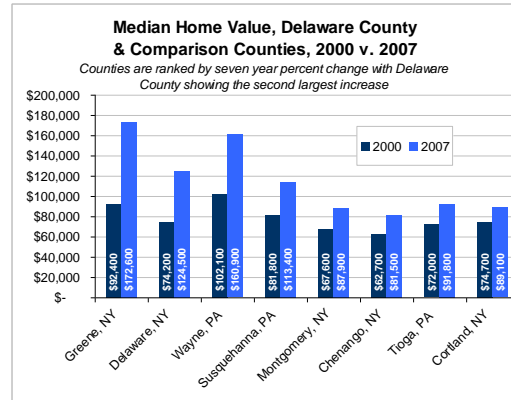


Figure 6 - Median Home Values

The analysis of New York City’s Land Acquisition Program conducted herein demonstrates that the LAP may have a potentially negative impact upon Delaware County either directly or indirectly through the exacerbation of existing socio-economic circumstances and trends. There also exists the possibility that the LAP could have a potentially positive impact upon certain industry sectors and local communities that may partially offset some of the negative impacts under certain circumstances (This is predicated on much greater access to City-owned lands than has previously been the case.).

However, despite this possibility, there exist many areas where mitigation measures might prudently be warranted in order to minimize the potential adverse impacts of the LAP upon Delaware County. Such mitigation measures may reasonably be applicable to other counties, towns and villages that likewise host the New York City watershed however these communities were not included within the scope of the Report’s analysis.

### Baseline Analysis

The first step in analyzing whether, or the degree to which, the new \$300 million land acquisition program may potentially impact Delaware County was to conduct a baseline analysis.

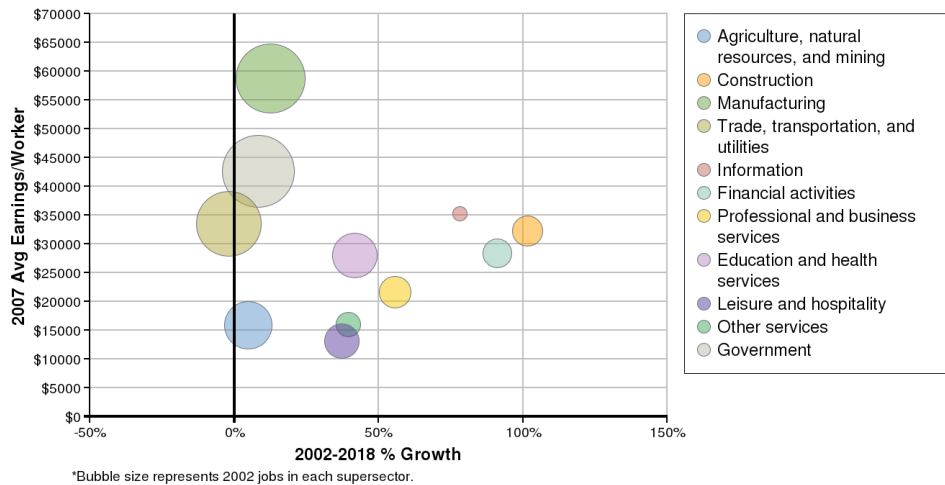


Figure 7 - Overview of Delaware County Economy

The following summarizes the baseline socio-economic conditions of Delaware County, as presented in the Report.

**Delaware County Economic Baseline Profile**

Indicator	Description	Status	Meaning
<b>Population Growth</b>	Annualized growth (2002-07) in residents based on Census estimates and EMSI model	About -2.0%	<i>County population is in steady decline since 1996</i>
<b>Net Migration</b>	Number of people moving into the county minus the number moving out of the county per year.	Stable and slightly positive in recent past; plunged to -173 in 2006	<i>2006 may mark beginning of population outflow from the county; need to discover causes</i>
<b>Educational Attainment</b>	Percent of 25+ year olds having college degree	Est. 30% and growing in 2008 vs. 34% in US	<i>County lags US in college degree attainment, will need to address this to remain competitive</i>
<b>Job Creation</b>	Annualized growth rate of jobs (payroll and proprietors, farm and non-farm), 2002-07	1.6% - slightly above NY; matches US	<i>Job growth has been steady in the county.</i>
<b>Unemployment</b>	% of labor force not employed	5.6% in Aug. 2008; lower than NY and US. 9.5% in March 2009; higher than NY and US	<i>Historically, the county tended to weather bad labor markets better than average, often through self-employment. Current levels are cause for concern, being a 20+ year high.</i>
<b>Mainstay Industries</b>	Manufacturing, Government, Natural Resources	Stable with moderate 2002-18 growth projected	<i>Core economy is stable but highly dependent on sectors with potential future challenges</i>
<b>Emerging Industries</b>	Services; Tourism/Arts/Recreation	Small but fast-growing, also tend to be lower-paying	<i>Emerging industries will create new jobs but also new challenges</i>
<b>Housing Costs</b>	% change in median home value, 2000 to 2007	68% jump in cost or \$50,300	<i>Housing costs in the county are rising significantly faster than surrounding counties</i>
<b>Income and Wages</b>	Comparison of County incomes and wage levels with State averages	Per capita income has been 30% lower than State average since 1970	<i>Income and Wages measured by EPW lag State averages in all industry and occupation categories</i>
<b>Proprietors</b>	Individuals who own and operate their own business	Represents 35.6% of employment, one-third of the	<i>Above average dependence on self-employment suggests lack of other opportunities, potential weakness to withstand further</i>

		economy	challenges
<b>School Enrolment</b>	Number of students in the education system	Continual declines since 1980 in total number enrolled	<i>Higher per student education costs, potential threats for quality of education, future consolidation and higher taxes</i>
<b>Land Values vs. Income Growth</b>	Comparison of growth in land values and incomes	Land values have risen sharply since 2001, incomes have kept pace until recently	<i>Despite declining population, new migrants to the County have higher incomes and are putting upward pressure on land values</i>
<b>Building Permits</b>	Local indicator of growth and physical property development	Flat growth since 1992 with approx. 150 permits issued per year	<i>Data suggests zero growth in the pace of development with no significant increases over an extended period</i>
<b>Vacancy Rates</b>	Rate of vacancy indicates supply and demand relationship for housing	35% vacancy rates suggests supply is outpacing demand; 1.94% growth in housing units from 2000 to 2007	<i>High vacancy should indicate lower housing prices over time as supply is taken up however land and home values are increasing faster than neighbouring counties.</i>
<b>Poverty</b>	Percentage of population living below the poverty line	Just over 14% in 2007, higher than national average	<i>Until recently, poverty rates were lower than State averages</i>

### Summary Analysis

Our analysis of New York City’s Land Acquisition Program as contained within the 2007 FAD concludes that the LAP is likely to have a direct negative impact upon Delaware County.

The job loss estimates, decreases in wage earnings of resident workers and the real property tax implications for local communities, as contained within this report and summarized below, are chief among these direct, negative implications for Delaware County.

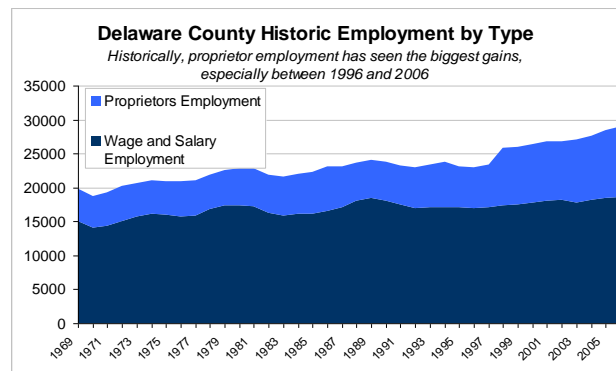


Figure 8 - Proprietor vs. Wage Employment

The analysis additionally highlights numerous instances where unintended consequences of the LAP will aggravate and intensify existing negative socio-economic circumstances and trends that are present in Delaware County. Over the long-term, these associative linkages could be much more damaging to local communities than even the direct impacts.

The following table summarizes the consequential findings of our analysis respecting potential impacts associated with the \$300 million New York City Land Acquisition Program. The findings are summarized according to four broad categories of concern including; economic impact, inflationary impact on land values, real property tax impact and community character. Within each of these categories, the table lists local concerns regarding the \$300 million LAP and relevant conclusions derived from this analysis. A number of the findings of this analysis indicate potential impacts across multiple categories.

**Summary Analysis**

<b>Economic Impact of the New York City Land Acquisition Program (LAP)</b>		
<b>Category</b>	<b>Local Concern</b>	<b>Report Finding</b>
<b>Economic Impact</b>	The impact of the LAP on Natural Resource based industries.	<i>Our Impact Analysis determined the continuation of the LAP may potentially result in the loss of 460 jobs within natural resource based industries. This is a significant impact in an economy of 28,000 full and part-time jobs, representing about 1.6 % of all jobs.</i>
		<i>Our analysis of potential lost opportunity in the natural gas sector under an acquisition scenario of 25% projects losses of royalty payments over \$29 million.</i>
	The impact of the LAP on jobs and employment within Delaware County	<i>The Report’s Impact Analysis, given a high growth scenario, projects that Delaware County may see the creation of 157 new tourism related jobs.</i>
		<i>The Analysis further projects the potential loss of 147 jobs in certain manufacturing sectors which are reliant upon various natural resource commodities.</i>
		<i>Our analysis indicates a potential transition within the economy with industries providing higher Earnings Per Worker being replaced by jobs in industries with lower Earnings Per Worker, bringing down overall wage levels throughout the economy over time.</i>
	The impact of the LAP on small businesses within Delaware County.	<i>Our Economic Analysis &amp; Baseline Model indicate that Delaware County is highly dependent upon sole proprietorships for employment opportunities. While not directly attributable to the LAP, this potentially indicates a lack of wage job opportunities and places Delaware County at an increased risk in regards to being able to bear changing economic and social conditions. (Figures 8 &amp; 9)</i>
		<i>Proprietor incomes in Delaware County average only 1/3 of the income of wage and salary earners. As sole proprietorships gain in predominance, income levels are likely to decline.</i>
	The impact of the LAP on wages and incomes within Delaware County.	<i>The Report’s Economic Analysis and Baseline Modeling found that current Delaware County wages are substantially lower than the State average for all sectors.</i>

		<i>The Impact Analysis relating to the potential impact on jobs in Key Sectors (Manufacturing, Natural Resources, Tourism &amp; Recreation), suggests an overall decline in earned income and wages for Delaware County residents due the projected increase in part-time, seasonal and low wage jobs and downward pressure on EPW as more low-wage jobs replace higher paying ones.</i>
	The LAP will impact future growth potential.	<i>As geography and regulations already greatly impact the development potential of land in Delaware County, the random pattern of acquisitions make it likely that land valued locally for its ability to support even moderate levels of development will be acquired.</i>
		<i>As there has essentially been zero growth in building permits over the last fifteen years (Figure 5) it is difficult to measure what impact the LAP may have on future development beyond the logical conclusion that less available land would equate to even lower levels of growth.</i>
<b>Inflationary Impact On Land Values</b>	The LAP will artificially increase land values.	<i>Logically, the increase in demand and consequential decrease in supply of available land will influence land values. This is particularly true when a primary source of that demand is highly motivated and well financed.</i>
		<i>Among comparison counties, median home values (Figure 6) rose at the greatest rate in watershed counties.</i>
		<i>Full value assessment in Delaware County (Figure 10) began to sharply increase as the implementation of the LAP began in earnest, after remaining flat for the nearly ten preceding years.</i>
		<i>Over 63% of contracts for easements and acquisitions were entered into with individuals whose primary address is outside Delaware County. This suggests that the LAP has been used as a financing mechanism for homes and property, having an inflationary impact on “market price”.</i>
	Local wage earners will be priced out of the market.	<i>The growth in personal income lags behind growth in land values as shown in Figure 11. This disparity was most striking in the last several years. Our analysis suggests that the further implementation of the LAP may exacerbate that negative trend.</i>
		<i>Wage levels, particularly among farmers and new tourism related jobs appear unable to support continued land valuation increases.</i>
		<i>In-migration from non-neighboring, downstate counties was particularly strong over the base period, together representing the largest single source of in-migration (Figure 4).</i>
		<i>Delaware County has significant, and increasing, vacancy rates (Figure 17) among housing units suggesting substantial levels of second-home ownership.</i>

		<i>Poverty rates have increased in recent years; Over 7,000 County residents are eligible for Medicaid Programs.</i>
<b>Tax Impact</b>	The LAP will increase the probability of NYC tax assessment challenges in the future.	<i>Growth in assessment values is increasing rapidly, showing sharp acceleration since 2005 (Figure 10). The increase appears to coincide more or less with the commencement of fee and easement acquisition activity.</i>
		<i>Assuming a successful challenge by NYC, Delaware County could face tax payment losses of from \$7.7 to \$48 million depending on the extent of re-assessment, future land values, rates of acquisition and future tax rates (Figure 12).</i>
		<i>NYC potential tax payments could rise as high as \$75 million in the most aggressive scenario of land value, tax rate and acquisition activity increases (Figure 14).</i>
	The LAP will shift tax burdens within the County to other property owners should NYC be successful in challenging assessments in future years.	<i>Removing or dramatically reducing the tax liability of such a large land owner within the County (NYC) will create increased pressure to make up the shortfall from the remaining land owners and tax payers.</i>  <i>Our analysis projects a spread of approximately \$48 million between the tax liability without any future challenge (most aggressive scenario as per Figure 14) and the projected payments due following a successful challenge (Figure 13). This represents a potential annual savings for NYC of almost \$1,000 for every resident of the County (Based on a population of over 46,000).</i>
		<i>The full extent of the potential impact of tax assessment challenges is roughly four times that shown in the tax analysis given that County property taxes represent approximately only 25% of the total tax liability for property owners.</i>
<b>Community Character</b>	The LAP is exacerbating shifts in community character currently underway in Delaware County.	<i>Our analysis indicates the potential for job loss, reduced worker earnings, continued population decline (Fig.3 &amp; 15), out-migration, escalating home values (Fig. 6) and local taxes, among other trends, which could ultimately impact the quality of life in Delaware County. While all of these factors may not have a direct cause and effect relationship with the LAP, it is reasonable to assert that they will be negatively impacted by the LAP.</i>
		<i>The County's demographic profile clearly points to trends in socio-economic factors (i.e. Fig.8) which are cause for concern from both an economic development and community character perspective.</i>
		<i>Consultation with community members indicate a series of concerns regarding community character ranging from lack of local sovereignty and downstate control to the decline of traditional industries, the increasing cost of living and a perceived loss of local identity.</i>

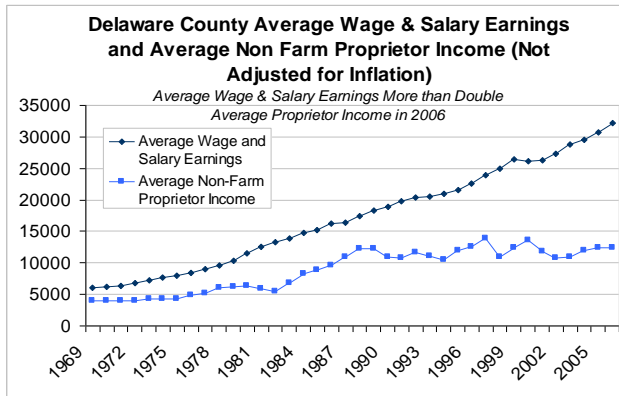
**Economic Impact**

To summarize, our analysis suggests that direct impacts resulting in job loss and reduced economic activity will occur in a number of natural resource-based industries such as agriculture, forestry and bluestone where we project a potential loss of 459 jobs or 1.6 % of all jobs should the land acquisition expand as is proposed via the latest FAD. Given these sectors already have low employment numbers, such impacts could have larger effects than their numbers imply.

Job Loss by Industry			
Category	Agriculture	Forestry	Mine/Quarry
Direct Jobs Lost	254	10	79
Indirect Jobs Lost	66	12	38
<b>Total Jobs Lost</b>	<b>320</b>	<b>22</b>	<b>117</b>
Jobs Multiplier Effect	1.26	2.22	1.48
Earnings Change (in thousands)	\$ (3,554)	\$ (787)	\$ (2,797)

The buying of land or strong easements on land that has natural resource value will reduce opportunities for business in bluestone, agriculture, and forestry unless NYC makes these activities attractive for others to pursue on NYC land, specifically in instances where providing access to such natural resources will have a negligible impact upon water quality. Making such land inaccessible will reduce jobs and incomes in the upstream industries that use such products, such as food processing.

Impacts on segments of the manufacturing sector reliant upon the natural resource base were also completed, specifically for milk manufacturing and wood products. In these cases, losses are also projected as more land is removed from production or usage for these purposes.



**Figure 9 - Wage & Salaries vs. Proprietor Incomes**

Under a high-growth scenario (i.e. the most optimistic), employment in tourism, recreation and environmental sectors could increase by 157 and 61 jobs, respectively. The projected growth in tourism and recreation is predicated upon the assumption that City owned land will be opened for full recreational use and managed per State Park land guidelines. The recent pilot program regarding the possibility of allowing small-scale recreational boating opportunities upon the Cannonsville Reservoir represents a starting point for this to occur. However, jobs in the tourism industry tend to pay less than the average job in other local industries, thus the average income in the area could go down if the economy shifts toward tourism service.

Our analysis suggests indirect effects regarding population demographics, income patterns, taxation and the cost of living in Delaware County. As seen in the direct and ripple effects (indirect and induced effects) from industry contraction and expansion, the consequences of a long-term net out-migration due to the in-affordability to live within Delaware County, could potentially be very significant. This can be partially attributed to potential decreases in earnings, as more low-paying jobs are substituted for high paying jobs, as shown in the non-natural resource industry impacts. In addition to the potential impacts upon community character, the further induced impacts upon a proprietary and small business

dominated economy (as currently exists in Delaware County) could be significant and definitely warrants further and more in-depth investigation.

Further, as New York City expands its land share holdings within the watershed there would be increased pressure for lower income residents to relocate in lieu of increasing land assessments and requisite property taxes. In this case, the remainder of the residents will be faced with fewer business opportunities and the probability of in-commuting will increase. This would likely result in earnings leakages from Delaware County into neighboring areas where living is more affordable, reducing the level of ripple effects from spending.

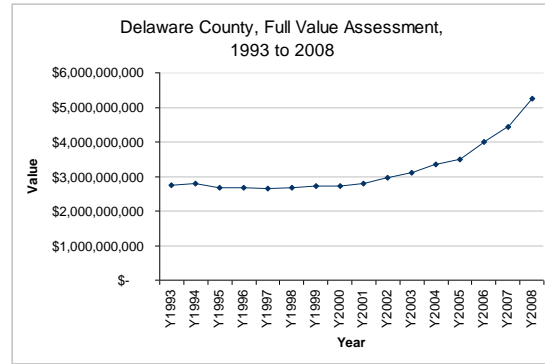


Figure 10 - Historical Land Assessment Values

NYC has favored “developable” land in past acquisitions, which is suggested by statistics and mapping. This reduces the development opportunity for the area in the future. There is very little easily developable land remaining in the County. This is already an adverse impact on the community's freedom of economic choices for future residents. This situation may be made worse if the practice of buying land and easements adjacent to existing population centers is continued. While reducing the future possibility of expanding those centers, this policy may actually encourage sprawl as new development and infrastructure must leapfrog the “frozen” NYC holding.

As previously outlined, the number of building permits issued in Delaware County (a primary measure of growth) has essentially remained the same since 1992. By this measure (excepting a brief upsurge in the late 1980’s) there has been no increase in development pressure for over twenty-five years. If land acquisition is a tool to control future development in Delaware County it would appear largely unnecessary, at least at this scale.

**Inflationary Impact on Property Values**

Property values in the area have increased notably, making land owners "wealthier" but raising the cost of housing for others who do not already own land. As per Figure 6 the growth in median home values in Delaware County outpaced growth in all but one of the comparison counties (Greene County which is also located within the NYC Watershed). Further, the increase in full value assessment of land has increased markedly throughout the implementation of the LAP, after having been essentially flat for the ten prior years. Our analysis indicates that 63% of acquisition and easement contracts have involved non-resident property owners. This suggests that the LAP has been used as a financing mechanism by non-fulltime residents for homes and property, having an inflationary impact on the local “market price”.

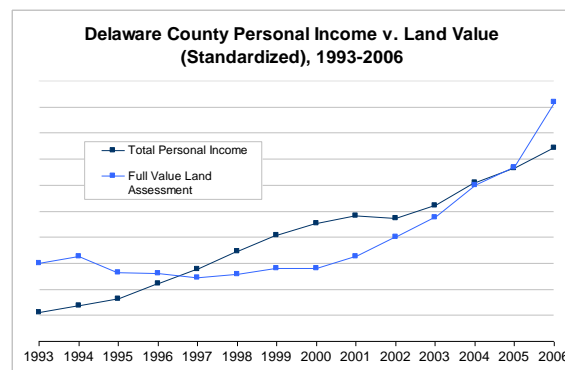


Figure 11 - County Incomes vs. Land Values

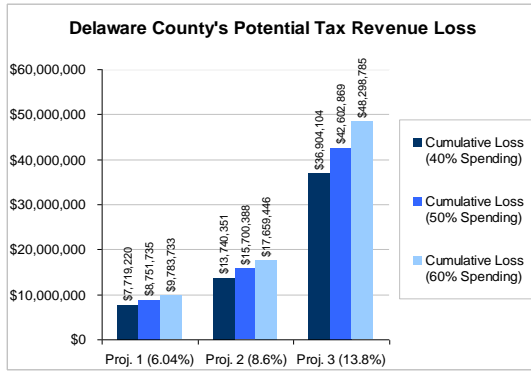


Figure 12 - Potential Revenue Loss - Post Moratorium

The increase in demand and consequential decrease in supply of available land has created inflated property values in the County. The values put strain on existing residents that occupy the lower income brackets and serve as the backbone of the Delaware County workforce. Our data (Figure 11) shows assessment growth outpacing that of income. If the strain becomes too cumbersome to this group of residents, the resulting net out-migration could severely impact the County's economy as well.

Residents may be priced out of the housing market. Whether or not this is caused or merely worsened by the inflationary pressures of the LAP, this trend will potentially worsen as the new \$300 million Land Acquisition Program is implemented.

**Tax Implications**

The potential tax implications or impact of the Land Acquisition Program should be a cause for concern with all stakeholders in the Watershed Partnership, regardless of their perspective.

For Delaware County, there exists the looming prospect of future assessment challenges by NYC which will be both time consuming and costly in addition to the obvious ramification on tax revenues should such a challenge be successful in reducing the value of NYC land holdings.

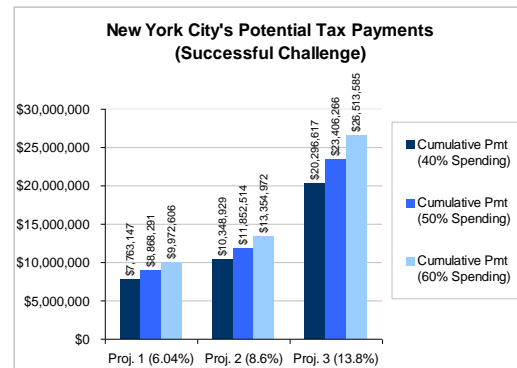


Figure 13 - Potential Tax Payments Post-Challenge

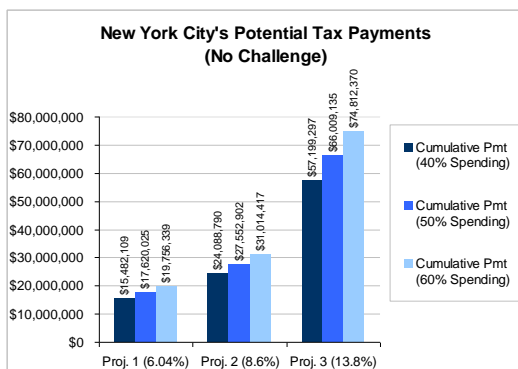


Figure 14- Potential Non-Challenged Tax Payments

For New York City, the accelerating pace of land values coupled with a growing base of land holdings as required by the current FAD could have the combined impact of greatly increasing the already sizable tax liability that must be factored into the cost of maintaining a filtration-free water supply.

The analysis in Section 6.4 of the Report suggests that Delaware County could face a potential loss of tax payments ranging from \$7.7 to \$48 million following a successful tax challenge after the 20 year anniversary of the moratorium in 2017 (assuming all land holdings that are eligible under the MOA are challenged). The range is based on a series of assumptions as outlined in the analysis but provide an indication of the magnitude of loss that could result.

Conversely, New York City could incur a tax liability as high as \$75 million (If 60% of its LAP is dedicated to Delaware County and land values grow at the most aggressive rate assumed in our analysis.) should it move forward with the LAP and determine not to challenge assessment values in the future.

Somewhere in the range of potential losses and payments lies the future outcome of the acquisition activity where the issue of land assessment is concerned. What is clear is that the property tax issue represents a significant challenge for both Delaware County and New York City moving into the future.

Water Board and numerous media articles have referred to rising water and sewer costs; taxes are consistently highlighted as one of the primary cost growth areas.

Buying a high fraction of a Town’s land and then getting a major assessed value reduction (permitted after 20 years) has two adverse effects: a) shifts burden of paying for local services toward other land owners, and b) makes DEP the biggest single property taxpaying entity in the Town, one who has much less interest in the community (particularly schools) than other taxpayers.

As seen in the land assessment horizon, when challenged, the value of NYC land holdings will likely decrease. However, the remaining habited property within the county will still remain subject to higher land value assessments. In sum, this will effectively shift a significant portion of the property tax burden away from NYC and onto other Delaware County land and property owners.

**Community Character**

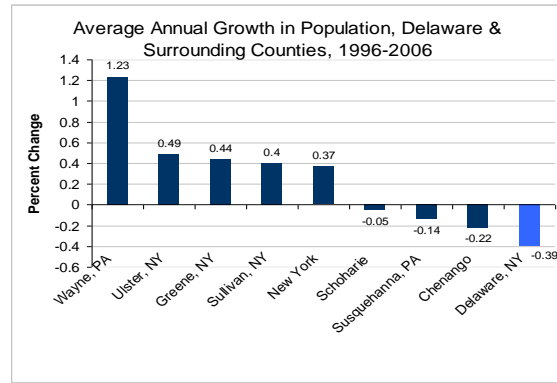


Figure 15 - Population Growth Comparison

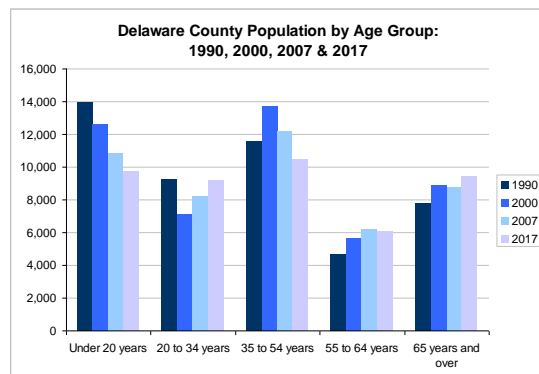


Figure 16 - Delaware County Age Cohort Overview

The area population is aging as people of higher age brackets move in and more young people migrate outward. This age structure change could be accelerated by reduced income opportunities and increased housing costs that may accompany large scale NYC purchases.

School enrolments are falling, which will lead to school consolidation and higher average school transportation costs for the remaining students. This is a consequence of the age structure change from migration, and also a

general US trend of delays in having children.

Buying of land and easements adjacent to existing population centers, as NYC has done near Hobart and Stamford, reduces the future possibility of expanding those centers, encouraging sprawl in the process. "Perpetual" terms of fee and easement sales reduce future choices for communities, land owners, and New York City.

Our consultation activities produced an outpouring of concern, particularly at the Public Meetings, in terms of residents’ uncertainty about the future, a belief that their community and County are changing in ways that have been negatively influenced by the presence of NYC’s watershed and a pervasive feeling of “downstate control” as well as an on-going loss of local identity and self-direction. Their feedback, presented briefly in Section 8 and noted in detail in Section 14, serves as informal evidence of the impact the Watershed’s presence in their communities.

We believe their concerns require further investigation and provide justification for New York State to expect a more comprehensive and balanced assessment of “environmental impact” in future FEIS’s prepared by New York City in requesting their next land acquisition permit.

To conclude, the EPA’s Office of Environmental Justice defines environmental justice as:

"The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including racial, ethnic, or socioeconomic group should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies."<sup>3</sup>

It is the Consultant’s opinion that the *NYC Watershed Economic Impact Assessment Report* has demonstrated that the approval of a new Watershed Permit is an action having potentially adverse impacts on Delaware County.

Relative to New York State, Delaware County is a municipality with low median household income and is at a distinct disadvantage monetarily to challenge New York City or the State in court. For all practical purposes the lack of resources nearly excludes the County from legal standing to challenge the State or New York City once the permit is issued.

The *NYC Watershed Economic Impact Assessment Report* meets the necessary criteria as described in the 17 principles of Environmental Justice and therefore, New York State should execute its due diligence to assure its compliance with the terms of Environmental Justice under Federal Law and hence inclusion of factors identified in this Report and Delaware County in the pending SEQRA process for permit approval.

### Mapping Potential Impacts

The Report sought to identify and characterize the current and future fee and easement land acquisition within the Delaware County watershed region. The methodology to determine the most sought after

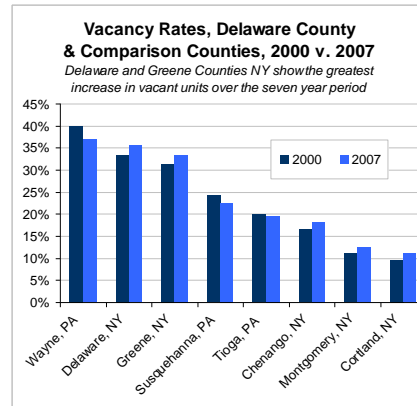


Figure 17 - Vacancy Rate Comparison

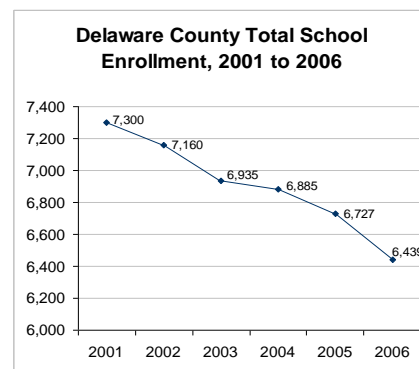


Figure 18 - School Enrolment Trends

<sup>3</sup> <http://www.epa.gov/greenkit/sustain.htm>, March 16, 2009

parcels for fee and easement acquisition was based on two main assumptions provided by the Delaware County leadership. These assumptions included:

1) Given the choice, New York City (NYC) will buy the most developable land rather than the most sensitive land. This is evidenced by the profile of acquisitions to-date and the fact that many sensitive lands are already protected from development and therefore not a necessary acquisition priority.

2) Long-term goal for acquisition is to control greater than 50% of the land in the watershed. This is a stated goal of State agencies, land trusts and others that hope to influence the City to achieve this level of acquisition. It is not a clearly stated goal of the City itself.

With these assumptions in place, the selection criteria for parcels followed the developable land criteria, specifically: a) land whose slope is less than 15%; b) land that is not located within 100 feet of a watercourse or wetland. Secondly, a greater than 50% control of the watershed would suggest that NYC will seek to acquire large parcels that meet the above developable land criteria before they seek other acquisitions. One final further assumption was that NYC would seek out the acquisition of parcels through fee or easement based on their internal prioritization schedule as outlined when the land acquisition program was initiated. The prioritization areas within the Delaware County watershed were provided by the Delaware County Planning Office but originate from NYCDEP. It is worth noting here also that NYC's criterion for acquiring land is so broad it is possible to meet the criteria and subsequently acquire developable lands as well.

Using the above described criteria, over 102,000 acres of land were identified across 11 Towns. The acreage and corresponding Towns are identified in Table 7.1. In addition to the total Town acreage, the number of acres below a 15% slope were also identified and calculated. The total number of developable acres within the 11 Towns based on this criterion amounts to roughly 64,000 acres. This projection suggests that over 50% of the lands acquired or eased will, in fact, be lands that could be otherwise developed but instead could be locked up by the City.

To further illustrate the analysis, Figure 7.2 highlights the **Town of Hamden** as an example. The figure displays the Town of Hamden at the parcel level. Each parcel is described according to the land-use type. For example, red indicates a vacant farm; yellow indicates a dairy farm, etc. Wetlands and watercourses are shown in blue and all water contains a 100 foot buffer, to indicate the portions of each parcel that could be developable. The parcels selected for potential future acquisition contained significant portions of developable land, or land that meets the criteria described in the above paragraph. Parcels whose borders are highlighted in light blue have already been acquired by the NYC through either fee or easement. This allows one to see both the amount of acquisition and the land-use type. In the Hamden example, much of the acquired land is classified as either dairy farm, rural vacant or abandoned agriculture. Furthermore, analysis shows that much of the acquired land meets the requirement for developable land and could have otherwise been developed.

The goal of this analysis is to identify areas of land that would be highly sought after by NYC for future acquisition. Furthermore, this analysis begins to identify sections of land that Delaware County may want to protect from future acquisition and make available for future development.

Projected Land Acquisition Acreage

Town	Projected Total Acq. (acres)	<15% Slope of Acq. (acres)
Andes	12,933	7,926
Bovina	10,652	7,206
Colchester	1,046	511
Delhi	13,669	9,217
Hamden	12,174	8,074
Kortright	5,080	3,760
Middletown	10,585	6,302
Roxbury	9,083	5,444
Stamford	8,742	5,424
Tompkins	4,718	2,250
Walton	13,528	8,269
<b>Total</b>	<b>102,210</b>	<b>64,383</b>

The above results indicate that large parcels in several Towns within the watershed would be targeted by NYC for acquisition, especially Delhi, Walton, Andes, Hamden, Middletown and Bovina. The following maps illustrate the locations of these parcels and their characteristics.

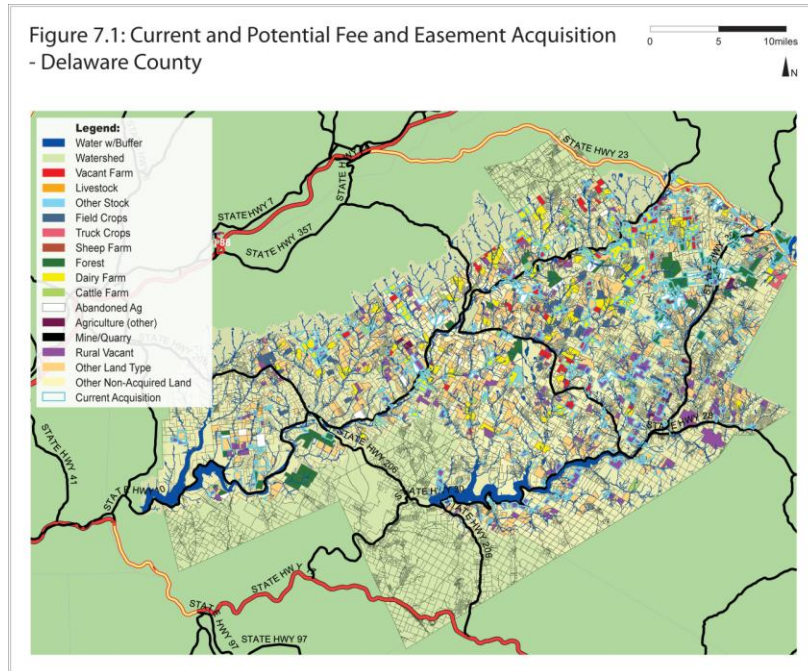
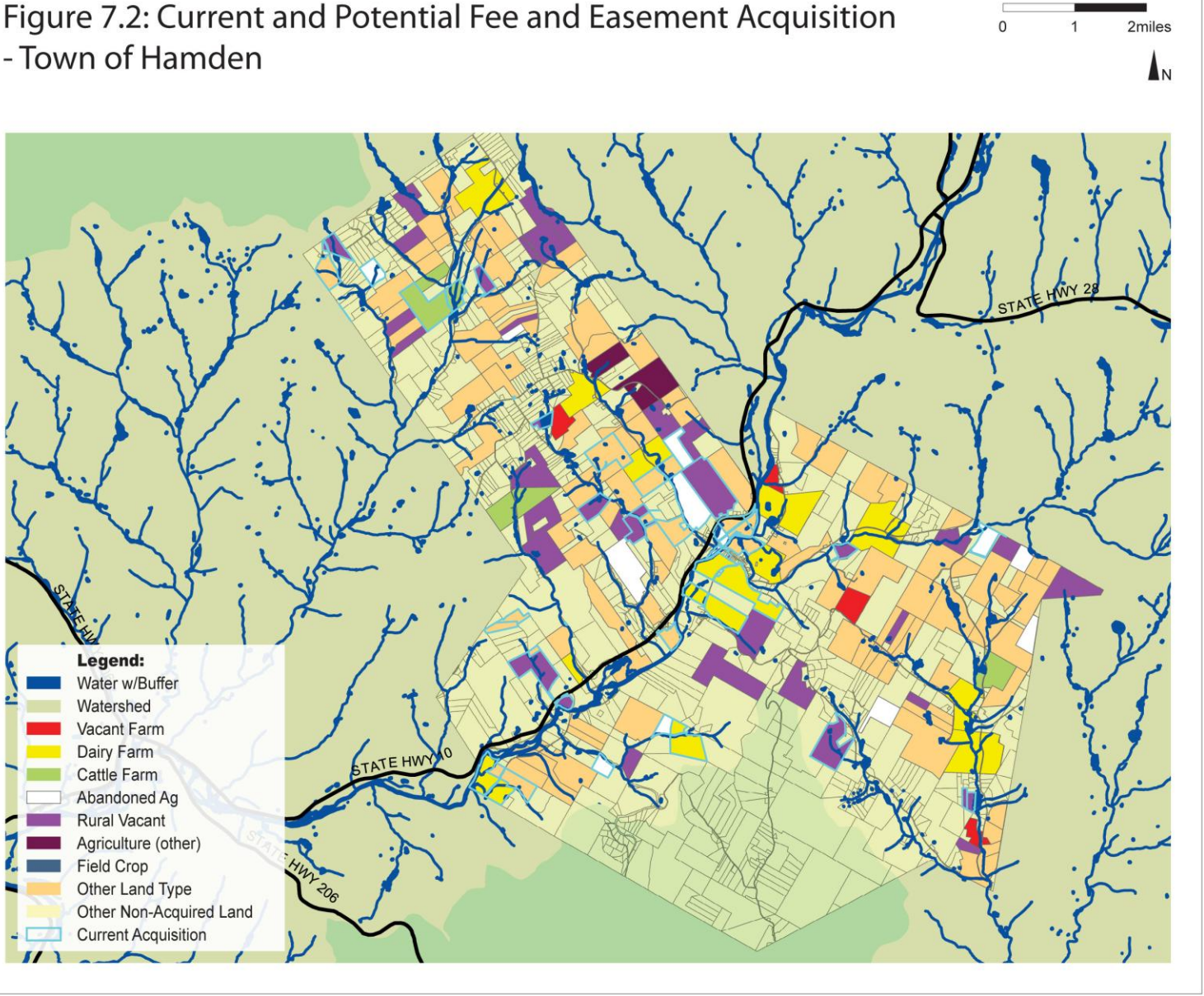


Figure 7.2: Current and Potential Fee and Easement Acquisition  
- Town of Hamden



## Action Recommendations

The following outlines the recommendations of the Downeast Development Consulting Group based on our analysis of the economy, the resulting future growth projections and potential impacts, our stakeholder consultation and the conclusions we have drawn in the previous section. The recommendations are organized in terms of those directed at New York City in relation to amending elements of the Land Acquisition Program, the State and Federal governments in terms of reacting to the findings of our Report and Delaware County in terms of strengthening its partnership with NYC, planning for the future and mobilizing for further action over the short to medium term.

### Amendments to the Land Acquisition Program

Our recommendations regarding amendments to the LAP focus on economic impacts, property values and their inflationary impact as well as associated tax implications.

#### Economic Impacts

- NYC should allow for the same access and historical usage of Priority 2, 3 & 4 designated lands acquired through the LAP (in fee land acquisition) as New York State land, without permit requirements.
- NYC should expand the pilot boating program to other reservoirs.
- NYC should work to actively promote and increase agricultural, timber and quarrying activities on their lands, revising existing guidelines and regulations if necessary, in instances where such use of the land will not have a significant or non-mitigatable impact upon water quality.
- NYC should require WAC to complete not only a Whole Farm Plan, but a farm business plan prior to entering into an agricultural easement to ensure the long-term viability of an operational agricultural venture.
- NYC should amend the agricultural easement program to operate on a farmland affordability basis (i.e. the farm easement is acquired at market price, less the agricultural value, with the requirement that the property can then only be sold at Ag value to another farmer).
- NYC should allow for permanent utility easements across acquired and eased lands where such utility easement will not impact water quality.
- NYC should focus acquisitions on lands that will provide the highest level of protection to the water supply, avoiding the acquisition of lands where potential impacts can be readily mitigated and prohibit the acquisition of lands within or in close proximity to hamlets and villages.
- Acquisitions in fee or through easements should be subject to local planning board review regarding potential impacts upon local comprehensive and economic development plans.
- NYC should fund a comprehensive economic impact analysis to fully understand the effectiveness of the agriculture easements program, on retaining farms.

### Inflationary Impact on Property Values

- NYC should establish as an acquisition criteria, a requirement regarding the minimum duration of ownership (i.e. in order to be eligible for purchase or an agricultural or conservation easement, the land must be owned by the seller for minimum of five years) except transitioning from farmer to farmer.
- NYC and the State should jointly fund affordable housing initiatives in and around villages and hamlets.

### Tax Implications

- NYC should fully fund the Tax Consulting Fund at the Catskill Watershed Corporation commensurate to the size of the new land acquisition program.
- Outparcels that are created as a condition of easement acquisition should be subject to local planning board approval to comply with local regulations to ensure the outparcel is buildable.

### Recommendations for New York State

- NYSDOH/EPA should grant NYC authorization and a waiver from FAD requirements to enable a suspension of acquisition and easement activity until issues raised in this analysis can be adequately addressed.
- NYS should include the legitimate concerns raised through this analysis in the scoping process of SEQR in regards to NYC's upcoming Land Acquisition Permit application and require NYC to undertake the recommendations outlined above as mitigation measures under SEQRA.
- NYS should develop an annual reporting program to measure impacts upon the local economy, inflationary impact on land values, tax implications, community character and other items, similar to the monitoring performed regarding the New Jersey Pine Barrens program, to monitor the impacts of the land acquisition program on Delaware County.
- NYS should work with watershed communities to modernize the assessment process and develop new assessment classifications to enable the development of a water quality lands classification for lands acquired under the LAP that will adequately account for their value in protecting the water supply of NYC.
- NYS should prioritize funding for the Delaware County Smart Growth Comprehensive Development Plan, as outlined later in this section.
- NYS should fund affordable housing initiatives in and around the villages and hamlets of Delaware County.
- The Delaware County Action Plan serves as a potential model on how to address existing and future challenges through partnerships. The Delaware County Action Plan (DCAP) should be fully recognized within the FAD.

- The West of Hudson Technical Advisory Group (TAG) is a resource of professional and technical staff that work daily on watershed issues and should be a recognized within the FAD as a technical, planning and programmatic resource to the City on watershed issues.

### Recommendations for EPA/NYSDOH

- EPA/NYSDOH should grant NYC a temporary authorization and a waiver from FAD requirements to enable a suspension of acquisition and easement activity until issues raised in this analysis can be adequately addressed.
- EPA/NYSDOH should conduct a scientifically based cost benefit analysis of land acquisition versus watershed protection programs in regards to their impact upon on water quality and the host communities.

### Strengthening the Partnership

The Partnership has been impaired by the latest FAD process and the apparent unilateral State decision to greatly expand land acquisition activity over the next ten years. New leadership at the NYCDEP offers the prospect of turning a new page in the relationship and going forward in a more positive, constructive manner. We recommend Delaware County take the following action to exhibit leadership in this critical area and demonstrate their commitment to the Partnership:

- Public acknowledgement, when and where appropriate, of the City's investment in local infrastructure, small business support via the CWC, good quality employment and career opportunities for current and future residents;
- Re-positioning and marketing of Delaware County as an environmentally sustainable community that also happens to be home to the world's largest unfiltered water supply;
- On-going communication with NYCDEP to determine areas to expand common interest. The recent negotiations between the CWT, Delaware County and the NYCDEP pertaining to the LAP have fostered an improved working relationship between the partners. Beyond these negotiations the establishment of protocols and or forums to extend ongoing communications on critical issues would serve the interests of all involved parties.
- Identifying opportunities to showcase Delaware County as a global leader in integrating economic development, community planning and growth with environmental stewardship and water quality protection principles.
- Voluntary solutions to problems should be sought that engage critical watershed partners in a process and promote the ultimate buy-in of the solutions generated by the group. Forums at which open dialogue is enabled reduce miscommunication over issues that are often times not as problematic as multiple parties perceive. Concerns over land acquisition program could be resolved in the same manner. Successful process models for consideration include :
  - The effort to pilot a boating program on the Cannonsville Reservoir.

- A highly notable process to be emulated is the Stream Corridor Program.
- Bi-lateral inclusion in all aspects of the proposed planning efforts recommended below.

## Planning for the Future

Our analysis and projections suggest potential direct and indirect impacts in the future stemming from NYC’s land acquisition activities. Delaware County requires a clear strategy and action plan to ensure senior levels of government are presented with both the impact evidence of this Economic Impact Assessment Report and a broad-based *Comprehensive Development Plan* outlining an approach to future development within Delaware County that seeks to achieve the MOA’s original objective of ensuring watershed protection and preservation of economic vitality and community well-being.

New York State’s Smart Growth Initiative for revitalizing the Upstate Region should be fully tapped and utilized in the development of such a plan. Other sources of assistance may be the Appalachian Regional Commission, the Southern Tier Regional Development Planning Board, New York City and the Catskill Watershed Corporation. The proposed **Delaware County Smart Growth Comprehensive Development Plan** would consist of the following key components:

### Land Use Plan

- Building collaboration with regard to the integration and utilization of County Land Use Planning instruments by NYCDEP in implementing their watershed protection programs to avoid conflicts with officially adopted plans.
- Compilation of all current Town-level Land Use Plans into a County Land Use Master Plan;
- Identification of all land uses and designations important to Delaware County’s continued “economic vitality” such as the recently revised Hamlet Designations, Agricultural Lands, Forestry and Mining Land Use classifications as well as Tourism and Recreation Resources;
- Identification and designation of all lands vital to the preservation of water quality based on relevant science regardless of current ownership; and,
- Identification and designation of all lands suitable for future residential and commercial/industrial development within the revised Hamlet Designation Areas as well as other available land resources outside the watershed boundary, regardless of current ownership.

### Economic Development Strategies

- Engage watershed partners in the development of a *Sector Strategy* focused on key areas of the economy such as Natural Resources, Tourism, Manufacturing and Small Business which are grounded in the above-noted Land Use Plan;
- Partner with NYC in the development of a *People Development Strategy* including initiatives to enhance and stabilize the current workforce and grow the County’s

population base through increased in-migration or immigration and youth retention and attraction activities;

- Identification of lands for future business park development in tandem with the above land use planning component and the creation of a *Business Parks Development Plan* based on eco-industrial and “green” economy concepts (i.e. high-quality, campus-like environments employing environmentally sustainable development principles and new building standards such as LEED certified facilities) to re-position the County’s development efforts in a manner that turns its existing infrastructure, clean environment and stringent watershed regulations to its advantage; and,
- Utilization and expansion of the County’s current *Business Retention and Expansion* program to identify specific growth opportunities within the existing economic base.

### Community Development

- Engage watershed partners in Creating a *Community Development Plan* focused on addressing and improving the range of social issues both County Officials and residents has raised over the course of the assignment;
- Complete detailed assessments of *County Population, Affordable Housing, Education and School Enrolment, Health and Seniors Issues, Social Services and Volunteerism* to identify key areas of concern and develop goals and action items to stabilize and improve these elements of community life.

### Stakeholder and Community Consultation

- The development of the Delaware County Smart Growth Comprehensive Development Plan should engage as wide a segment of the local population and key organizational stakeholders as possible. *Consultation* activities and benchmarks should be applied as an important component of the planning process to encourage strong buy-in and support at multiple levels throughout the County and beyond. Ultimately, the broader community must own and support the Plan.
- Completion of a *Community Survey* of residents to further explore socio-economic issues, validate or challenge findings of the Impact Study and identify the issues which are most relevant to include in the County’s intervention in the pending Scoping exercise the NYSDEC will undertake in response to New York City’s application for a new Land Acquisition Permit in 2010. The survey should be completed in advance of the Smart Growth Plan and its results used to inform the terms of reference developed to guide the Plan’s development in addition to being utilized in the planning activity itself.

### Organizing for Action

Delaware County must organize for action. The consultation activities undertaken as part of the project clearly indicate a broad base of stakeholder and community support for the County’s efforts to address the New York City relationship generally and the expanded Land Acquisition Program in particular.

The opportunity exists to mobilize this support through the development of the Smart Growth Plan. While considerable effort and resources have been applied to “reacting” to New York City and the activities of their Department of Environmental Protection, the consultation activities, research, projections and potential impacts compiled in the course of the Report set the stage to engage a range of organizations and individuals throughout Delaware County. We recommend the following to initiate this process:

- Formation of a *Smart Growth Task Team* delegated with the responsibility of developing the Comprehensive Development Plan that includes representation from Delaware County Departments, the Delaware County Chamber of Commerce, SUNYS Delhi, Cornell Extension, Delaware County Soil and Water Conservation District, Watershed Agricultural Council, Catskill Watershed Corporation, Delaware Tourism, NYC DEP, Health and Education stakeholders as well as other sector organizations as appropriate. Establish the *Team Mandate* to complete the Comprehensive Plan not focus on the land acquisition issue specifically;
- Undertake a *Public Relations Campaign* to communicate the results of the Economic Impact Assessment Report and launch the wider Smart Growth planning process aimed at local residents, organizations, the business community and government officials and elected representatives at the local, City, State and Federal levels.

In addition to organizing to undertake the recommended planning activities, Delaware County must prepare for the Scoping exercise required under the *SEQRA Act* that NYSDEC must undertake in response to NYC’s land acquisition program permit in 2010. The following is recommended to ensure this is achieved within the available time frame:

- Presentation of the Report’s conclusions and recommendations to the NYS Department of Health, NYS DEC, the USEPA, NYCDEP and other relevant parties upon its completion and acceptance by the Board of Supervisors;
- Completion of the Smart Growth Plan by December 31, 2009. This is critical as the designation of lands for future residential, commercial and natural resource development must be formally designated within the Plan in advance of the scoping action under SEQRA;
- Formal notification should be given to the NYSDEC that Delaware County considers the Land Acquisition Program a Type I Action under SEQRA. Given that the Act’s definition of “Environment” includes resources of agricultural and historic significance, changes in demographics and community character, DEC is required to request an Environmental Impact Statement (EIS) from the New York City DEP in which these additional aspects of the “Environment” must also be addressed. The EIS, by its definition, requires the City to address these other environmental factors and identify measures to mitigate any impacts; and,
- Commence a process of negotiations with NYCDEP to define acceptable mitigation measures well in advance of their application to NYSDEC for the new permit.