Adding Value
Open Space Conservation in the Mid-Hudson Valley

A Report of The Fourth Regional Plan
August 2018
Acknowledgments

This report highlights key recommendations from RPA’s Fourth Regional Plan for the New York-New Jersey-Connecticut metropolitan area.

View the full plan at fourthplan.org

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Cover Image: RPA
The forests, farmlands, wetlands, and other open space in the Mid-Hudson Valley are critical environmental and economic resources for the entire New York metropolitan region. In this era of climate change, these natural systems’ ability to cool the region and absorb storm and flood water are making them increasingly valuable. Yet the burden of protecting these lands is disproportionately borne by local communities that lose tax revenues when these properties are taken off the tax rolls.

This tension, driven in part by an undervaluing of both the local and regional benefits of open space, undermines efforts to preserve these vital natural resources. This study was designed to bridge local and regional interests by determining the direct and indirect environmental, economic, quality-of-life, and other benefits protected open space and open space-oriented nonprofit organizations and land trusts provide to surrounding communities in the Mid-Hudson Valley. Additionally, the study attempts to determine the impact of tax exemptions related to open space on communities.

Major Findings

The four-county Mid-Hudson Valley study area of Putnam, Dutchess, Orange, and Ulster counties is among the region’s richest in terms of open space and natural resources.

- The Mid-Hudson Valley includes 400,000 acres of protected open space and 1.25 million acres of unprotected open space. These counties account for 36 percent of the forest cover and 34 percent of the agricultural lands within the 31-county New York-New Jersey-Connecticut metropolitan area.

Measuring and understanding the value of open space are critical to ensuring its protection. This study created over two dozen environmental, economic, quality-of-life, and stewardship indicators to help demonstrate the value of protecting open space.

- The ecosystem benefits of this open space, including climate regulation; disturbance regulation, water quality and management; pollinator support, and biodiversity, are worth approximately $3.5 billion. Over two-thirds of those benefits are generated by unprotected open space.

- The Mid-Hudson’s 1.2 million acres of forestland play a particular role in helping make the New York area resilient to the worsening effects of climate change. Its permeable surface absorbs and stores water that would otherwise contribute to flooding, and its tree canopy cools the air and sequesters carbon that would otherwise be released into the atmosphere, providing over 30 percent of the greater region’s capacity to store carbon in these four counties alone.

- Nearly 20 percent of the Mid-Hudson is in watersheds that deliver nearly 2 billion gallons of drinking water per day to over half the state’s population.

- The 277,000 acres of farmland in the four counties produced $209 million in agricultural output in 2012, over twice the amount of 2007.

Stewards of the Mid-Hudson Valley’s open space include public, state, and local governments, and nonprofit land trusts.

- Fifty-six percent of the 105 municipalities in the area either have open space plans or refer to open space in their comprehensive plans or land use regulations.

- From 2000 to 2008, voters in local municipalities approved the great majority of public referenda to protect open space. Together, these municipalities have protected an estimated 7,500 acres, at an average cost of about $5,000 per acre.
No municipalities have put land preservation referendum measures before the public since 2008. The tax cap, and the formulas that determine a municipality’s actual threshold, is a disincentive for municipalities to protect open space through this type of spending.

Land trusts have been highly scrutinized because the land they protect is tax exempt—although the land they own combined represents less than 1 percent of all the exempt property values in the four counties.

**Build-out analyses for three Mid-Hudson areas reveal opportunities for growth, although thoughtful local planning and zoning will be required to limit the loss of unprotected open space.**

- Current zoning would allow for significant development in undeveloped areas—enough to accommodate far more population growth than is projected in alternative scenarios.
- Developing and redeveloping in ways that concentrate growth in already developed areas would prevent the loss of anywhere between 1 and 9 percent of unprotected open space, and between 4 and 9 percent of unprotected agricultural land in the build-out analyses’ study areas of greater-Warwick, -Red Hook, and -New Paltz.

**Recommendations**

The analysis in this report, as well as RPA’s Fourth Regional Plan, should be used to strengthen open space protection and land use, including the following:

- Track indicators of open space value
- Prioritize the protection of land that is most critical for adapting to a changing climate
- Create a Tri-State Trail network with connections in the Mid-Hudson Valley
- Adopt smart growth policies that concentrate growth in downtowns and centers within the region’s municipalities

Six actions by the state government are recommended to increase local government’s capacity to protect open space, expand public knowledge of the actual character and impact of property tax exemptions on local governments, elevate the visibility of the continued use of exemptions as a state policy tool, and achieve equity in state policy for offsetting the local impact of exemptions:

- Revise the tax cap formula to remove disincentives for municipalities that have gained voter approval to bond for open space protection
- Administer and report on the STAR program separately from actual property tax exemption programs
- Amend state law to make the impact of exemptions more visible and understandable to citizens
- Require annual state comptroller reporting of newly adopted tax exemptions and their impact
- Adopt and implement a consistent, systematic policy regarding payments made to localities to relieve their burden of both undeveloped and developed exempt properties
- Take responsibility at the state level for local effects of state policy

This project was guided by a diverse set of stakeholders who gave the project direction and provided input into indicators across three areas: 1) sustainability/environmental; 2) government; and 3) business/economic development.

RPA and SUNY New Paltz encourage local governments, NGOs, and land trusts to adopt and track the study’s indicators, and employ them as measures of the region’s success.
Nowhere in the New York metropolitan region have land conservation efforts been as successful over the last century as in the Hudson Valley, arguably the birthplace of the modern environmental movement. Over time—and through the efforts of numerous committed groups, concerned citizens, and local governments—hundreds of thousands of acres have been permanently protected as farmland, forest, and other natural habitats. These protected landscapes have improved the quality of our air and water, nurtured biodiversity, allowed for the production of more local foods, and given nearby residents and visitors the gift of beautiful landscapes.

The conservation of open space and the protection of natural resources, such as drinking water, reliably persist near the top of priority lists for the region’s residents and New Yorkers in general. As recently as 2015, a survey of the state’s voters overwhelmingly indicated support for enhanced conservation funding. Reflecting awareness of this public predisposition, Governor Andrew Cuomo and the New York State Legislature increased the budget of New York’s Environmental Protection Fund in 2016.

But in parallel with the general support for open space protection is a pervasive and growing concern about how local governments are financed. The strapped budgets of local municipalities, largely reliant on unpopular property taxes, leave them struggling to find every possible source of revenue. This is exacerbated in New York State, where the property tax cap limits the amount municipalities can increase revenues from this source. Against the backdrop of these fiscal pressures, some municipalities have sought to increase their property tax bases by challenging the exempt status of protected open space and, more specifically, land conservation-focused nonprofit property holders in their communities. According to some local officials, these organizations are placing demands for public services on communities without offering commensurate support for providing them.

Nonprofit land preservation organizations, however, maintain that their property tax exemptions are essential to their ability to succeed, acquire more land in the interests of the region, and be good stewards of it. They also argue that the preservation of land has positive effects on the local economy and on communities and natural ecosystems that far outweigh any lost government revenue.

In addition to this source of tension between local land trusts and municipalities, the historic “town-country” divide between the Hudson Valley and New York City persists, manifesting in such continuing issues as land ownership and limits to growth in drinking-water watershed areas, rights to drinking water, and concerns about overuse of protected land, among others.

These tensions threaten to undermine efforts to effectively manage and protect open space, and reflect an underappreciation of its value, including the numerous and synergistic local and regional benefits.

Though the way we tax may cause us to think this way, open space protection is not a cost imposed on one place or region for the benefit of the other. Rather, it is a shared commitment to clean air and water, healthy lives, beneficial habitats, local sources of food, and region-wide economic vitality. And as the effects of climate change are further felt, open space protection also translates to stored floodwaters, captured carbon, and cooler communities.

Put another way: 1) preserved and maintained by government and nonprofit managers, local communities and their residents benefit from protected open space in and around their community; 2) New York City and Hudson Valley local governments benefit from the open space and farmland protected in the Hudson Valley; and 3) the Hudson Valley benefits from its proximity to and relationship with New York City—and vice versa. All of these reciprocal inter-relationships serve to form a virtuous cycle that should be invested in and nourished.

To date, open space protection in the Hudson Valley has largely been a success story. Over the next 25 years, the New York Metropolitan Region could potentially add as many as 3.7 million residents and 1.9 million jobs. With more people and jobs in the region, there will be increased pressure on land, air, and water. If we are to continue to benefit from the synergies of protecting open space (and ensure future lands are protected), we will need to raise awareness of its value. We must nurture shared understanding and commitment, improve and adopt state and
local policies, and assure the continuity of practices that sustain the exceptional quality of life available to our region’s residents.

**Study Area**

The study area of this project included four counties, which are home to over 950,000 residents: Dutchess, Orange, Putnam, and Ulster. These outer-ring counties are easily reachable by car, bus, or train from New York City. Though each has a unique identity, all border the Hudson River and have sufficient similarities with the others to be collectively regarded as a distinct area of the region. These four counties fall within the heart of the regional agricultural belt and are home to some of the region’s largest preserves. Three out of four of these counties contain much of New York City’s two watersheds.
Project Approach

This project is an in-depth quantitative and qualitative analysis carried out by Regional Plan Association in partnership with SUNY New Paltz. The joint research team took an independent look at the costs and benefits of open space protection, including the costs of tax exemption and the potential reductions in the amount of preserved land in Orange, Dutchess, Ulster, and Putnam counties in the Mid-Hudson Valley. This required researching the direct and indirect environmental, economic, quality-of-life, and stewardship benefits land protection provides to both host and adjacent communities in the greater region. To help consider the value of open space, a series of build-out scenarios was conducted in three communities in the study area. A series of policy recommendations were offered to help ensure the benefits and costs of preserved land were balanced with the fiscal needs of the region’s communities.

The project was informed by a diverse and informed range of stakeholders, with members representing three areas of focus: 1) sustainability & the environment; 2) government; and 3) business & economic development. Stakeholders were engaged in multiple roundtable meetings over the course of the project and a public presentation and workshop provided a forum for over 130 participants to learn about and provide feedback on the study, as part of a centennial celebration of the National Park Service at the FDR Library and Museum. All who were engaged provided valuable ideas, perspectives, and input that reflected their values, knowledge, and priorities.

The project and its results informed Regional Plan Association’s Fourth Regional Plan as an analysis of the importance of open space conservation in the Hudson Valley to benefit the entire region’s health, prosperity, equity, and sustainability. It also aimed to present an added perspective from which land trusts, local and state government, parks managers, businesses, and average citizens could measure the benefits protected open space provides, and help inform decisions made concerning additional open-space protection, management, and use.

List of Roundtable Attendees

Neil Bettez, Supervisor, Town of New Paltz
Sarah Brannen, Hudson Valley Farm Hub
David Church, Orange County Department of Planning
James Delaune, Orange County Land Trust
Dennis Doyle, Ulster County Planning Department
Mary Ann Johnson, Hudson Valley Agribusiness Development Corporation
Lucy Joyce, Cornell University Cooperative Extension/Orange County
Amanda Lavalle, Ulster County Planning Department
Cara Lee, Nature Conservancy
Seth McKee, Scenic Hudson
Robert McKeon, Supervisor, Town of Red Hook
Kelly Morris, Orange County Department of Planning
Tim Rogers, Mayor, Village of New Paltz
RJ Smith, RJ Smith Realty
Mike Sweeton, Supervisor, Town of Warwick
Jill Varricchio, Putnam County Economic Development Corporation
While it may seem like a paradox, regional growth—in population and jobs—in the right places, can in fact serve to advance a more sustainable region. However, this requires smart planning and proper management. In contrast, growth left unguided can make both localities and the region losers, consuming portions of the Mid-Hudson Valley’s irreplaceable unprotected open space, including the 1.25 million acres\(^1\) in our study area.

Growth projections

RPA’s Fourth Regional Plan offers a viable alternative to our current path. It embraces sustainable growth and includes 61 specific recommendations to achieve greater equity, shared prosperity, better health, and sustainability. Underlying these recommendations is the belief that if we can provide the housing, commercial space, and infrastructure needed for all those who want to live here, the region could support 3.7 million additional residents and gain nearly two million additional jobs by 2040. More importantly, this growth could take place in a way that broadly shares prosperity and well-being, overcomes long-standing inequities, promotes a sustainable environment, and adapts the region to climate change.

RPA’s vision for growth in the region is based on a model that prioritizes growth in already developed places that have established transportation, wastewater, and other infrastructure. To develop the model, RPA mapped the region into five place types based on their land use and other aspects:

- Urban core
- Downtowns and centers
- Commercial-industrial
- Primarily residential

Overall, the vast majority of regional population and job growth are envisioned in neighborhoods located in the urban core and in downtowns and small town centers. Far less growth is envisioned in suburban residential areas, and very little growth overall is envisioned in unprotected open space and rural areas.

RPA’s growth model envisions the following deviations from current trends in population and job growth by 2040 in the project study area:

Given the model’s emphasis on increased growth in the urban core and downtown areas, and less in open space and rural areas, the projected population in RPA’s vision scenario, while considerably higher than the trend scenario for the region as a whole, is less than the trend projections for growth in Putnam and Ulster counties—and about the same in Dutchess and Orange counties. Orange County has the greatest number of favorable place types for population growth, compared with the other three counties. The percentage of change in jobs in the study area under the RPA’s vision, however, is anticipated to be greater than the undirected trend in all four counties, with particular impact in Dutchess and Ulster. This is due to the limited growth in jobs in downtowns and manufacturing areas currently forecast for these places. In other words, RPA’s model is more ambitious about job growth in places not currently adding jobs.

In total, RPA envisions over 110,000 additional residents (a 13 percent increase from today) and around 47,000 additional jobs for the four-county study area by 2040. By proceeding sustainably, largely in already developed places, far fewer acres of open space would be consumed to accommodate this growth. In order to ensure open space remains undeveloped, targeted open space protection—as recommended in the Fourth Plan—will be necessary, while good planning practices will guide growth into places that will help increase incomes and reduce poverty; expand housing choices and lower costs; rejuvenate downtowns and neighborhoods; increase revenue for public needs; and support a growing dependent population.

\(^1\) As measured by land cover, including cropland, pasture, wetland, forest.
Defining Protected Open Space

There are many ways land is “protected” from development, both in practice and by law. Whether it is owned by a government, a nonprofit land conservation organization, or a private corporation or individual, open space may be permanently or temporarily assured. Protection can apply to an entire stretch of land, or just a portion of it, with the rest unprotected. Moreover, a legal covenant for protection can dictate how that land is used, ranging from limiting or prohibiting human access (for natural-system protection) to allowing passive or active recreational use (e.g., hunting) to permitting actual production from use of the land, growing food, harvesting timber, or extracting other natural resources like drinking water supplies.

There are multiple mechanisms used to ensure the protection of land, including the following:

- **Fee simple acquisition:** wherein property is outright purchased by a public agency or nonprofit land conservation organization. This is the most permanent and binding of tools, though temporary acquisition by a land trust may precede moving to public ownership, where protection becomes permanent.

- **Conservation easement:** wherein the development rights of a property or portion of a property are purchased to ensure no further development of the designated area.

- **Favorable tax treatment:** where in return for keeping land undeveloped or for such uses as agricultural cultivation, private property owners receive favorable tax treatment.

- **Land-use regulations:** that forbid, limit, or encourage certain uses, including special overlay districts, growth-management boundaries, and rural zoning codes.

Open space that has been protected is often fully or partly exempt from the property taxes levied on other parcels of land. Because this can result in the loss of critical municipal revenue when land becomes protected, communities must weigh the benefits of protected open space with any reductions in revenue.

### Table 1: Job allocations by county, Current Trends and RPA Vision

<table>
<thead>
<tr>
<th>County</th>
<th>2015 Total Jobs</th>
<th>2040 Current Trends</th>
<th>RPA Vision 2040</th>
<th>Change in Trend to 2040</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dutchess</td>
<td>129,240</td>
<td>133,917</td>
<td>146,375</td>
<td>4%  +9%</td>
</tr>
<tr>
<td>Orange</td>
<td>155,384</td>
<td>167,061</td>
<td>178,316</td>
<td>8%  +7%</td>
</tr>
<tr>
<td>Putnam</td>
<td>29,288</td>
<td>29,747</td>
<td>30,545</td>
<td>2%  +2%</td>
</tr>
<tr>
<td>Ulster</td>
<td>68,691</td>
<td>68,044</td>
<td>74,409</td>
<td>-1% +13%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>232,403</strong></td>
<td><strong>239,217</strong></td>
<td><strong>259,370</strong></td>
<td><strong>13%</strong></td>
</tr>
</tbody>
</table>

Source: Regional Plan Association; Moody’s Analytics

### Table 2: Population allocations by county, Current Trend and RPA Vision

<table>
<thead>
<tr>
<th>County</th>
<th>2015 Total Population</th>
<th>2040 Current Trends</th>
<th>RPA Vision 2040</th>
<th>Change in Trend to 2040</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dutchess</td>
<td>295,754</td>
<td>336,533</td>
<td>335,964</td>
<td>14% 0%</td>
</tr>
<tr>
<td>Orange</td>
<td>377,647</td>
<td>427,416</td>
<td>433,649</td>
<td>13% +2%</td>
</tr>
<tr>
<td>Putnam</td>
<td>99,042</td>
<td>116,521</td>
<td>109,796</td>
<td>18% -7%</td>
</tr>
<tr>
<td>Ulster</td>
<td>180,143</td>
<td>206,114</td>
<td>198,109</td>
<td>14% -4%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>852,636</strong></td>
<td><strong>989,084</strong></td>
<td><strong>1018,019</strong></td>
<td><strong>13%</strong></td>
</tr>
</tbody>
</table>

Source: Regional Plan Association; U.S. Census Bureau County Population Estimates

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2 Brookings, 2002
Open space provides a tremendous asset to our region in multiple ways that are both obvious and imperceptible. While often simply presented as a block of green space on maps, open space represents so much more. It is the calming walk we take in the woods, the drinking water that reliably flows from our taps, the clean air we breathe, the local food we purchase, the stored carbon and captured floodwaters in a changing climate, the life-sustaining habitat for abundant species, and a thriving economy. Without proper protection, all of these assets are at risk of being degraded or diminished. In order to ensure further protection—and to signify the importance of places already protected—this study set out to demonstrate the value of protected open space, both quantitatively and qualitatively. By clearly assigning value across a series of indicators that can be tracked and updated over time, protected open space can be better understood for the multitude of benefits it provides locally and regionally.

Indicators

Comprehensively measuring the value of open space is critically important, yet inherently challenging. Indicators are only as good as the data that comprises them, and characteristics that can be measured do not always capture the complete picture. So while there are no absolutely perfect indicators, there are several important characteristics of good indicators that were used to develop those in this report. Good indicators should be:

- Reflective of values
- Valid and representative
- Familiar and recognizable
- Statistically measurable
- Logical and scientifically defensible
- Reliable
- Available
- Relevant to policy

Reflecting these guidelines, the following set of indicators was developed to demonstrate the value of open space through environmental, economic, quality-of-life, and community stewardship lenses.

Environmental

The most obvious benefits of open space and its protection are reflected in the environmental value it ensures. The following environmental indicators demonstrate these benefits through ecosystem services and other measures concerning land, air, and water.

Open Space and Protected Land

Around 400,000 acres of the Mid-Hudson region is open space that is protected—that accounts for 22 percent of its total land cover, but only 31 percent of its total open space; nearly 70 percent of the region’s open space is unprotected. Four percent of the protected open space is crop or pastureland. Together, Dutchess, Orange, Putnam, and Ulster counties represent the part of the metro region that includes particularly diverse open space—agricultural lands, forest, and wetland—distinct from, but in regional kinship with, other landscapes like the New Jersey’s Highlands and the Delaware River Valley. While these four counties account for less than 25 percent of the larger metro region’s total area, they contain over 36 percent of its forest cover and 34 percent of its total agricultural land. While places of retreat for many in the region, they are also home to strong year-round communities, the identities of which are often defined by their proximity to open space.

Ecosystem Services

With a diversity of land covers, the Mid-Hudson’s open space (protected and unprotected) supplies myriad ecosystem services; its nearly 160,000 acres of wetlands help regulate water and climate disturbances, while its 1.2 million acres of forestland cover work to balance and store carbon and support pollinators, among other natural services.
Dollar values for avoided costs are attributed here to six types of ecosystem services provided by open space in the study region: gas and climate regulation, disturbance regulation, water regulation, water supply, pollinator support, and habitat/refugia.4

Through supply of these six ecosystem services—a modest number that likely undercounts impacts because of the several ecosystem service benefits that are often quantified by other studies but not included here (such as soil formation and biological control)—the area’s open space contributes more than $3.46 billion in annual cost savings in avoided infrastructure, healthcare services, and built substitutes. Protected open space accounts for $816.5 million (24 percent) of this total. Thus, as the region grows, as much as $2.64 billion in ecosystem services—those provided by unprotected open space—is at risk if necessary future development does not prioritize continued preservation.


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**Figure 2: Ecosystem Services: Protected vs Unprotected Open Space in the Mid-Hudson Valley (Total Dollar Values)**

<table>
<thead>
<tr>
<th>Ecosystem Service</th>
<th>Protected</th>
<th>Unprotected</th>
<th>Total Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas/Climate Regulation</td>
<td>73%</td>
<td>27%</td>
<td>$122M</td>
</tr>
<tr>
<td>Disturbance Regulation</td>
<td>86%</td>
<td>14%</td>
<td>$663M</td>
</tr>
<tr>
<td>Water Regulation</td>
<td>86%</td>
<td>14%</td>
<td>$542M</td>
</tr>
<tr>
<td>Water Supply</td>
<td>78%</td>
<td>22%</td>
<td>$532M</td>
</tr>
<tr>
<td>Pollinator Support</td>
<td>68%</td>
<td>32%</td>
<td>$234M</td>
</tr>
<tr>
<td>Habitat/Refugia</td>
<td>68%</td>
<td>32%</td>
<td>$1.36B</td>
</tr>
</tbody>
</table>

Source: RPA analysis

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**Open Space**
Open space as a percentage of land area
Data: The Nature Conservancy, USGS, RPA

**Protected Land**
Share of all land area protected or preserved
Data: USGS, TNC, CBI, NCED, PADUS, local land trusts

**Agricultural Land Cover**
Share of all land area classified as hay/pasture or cultivated crops
Data: USGS
Estimated savings from avoided costs are just one way of measuring the value of ecosystem services provided by open space in this region. We also measure the outcomes of these services with public health, habitat, and climate metrics to illustrate how they impact the landscape and life in nearby communities and the larger region.

**Climate**

The greater metro region’s ability to respond to the effects of climate change and increased frequency of adverse climate events relies heavily on the continued health and connectivity of its open space, a large portion of which, as noted, is within the boundaries of our four study counties. Thus, the forests, wetlands, and fields of the Mid-Hudson play a critical role in the mitigation of adverse climate effects, not just locally, but beyond and downstream as well. Two particular ways in which the open space within our four counties undergirds the resilience of the greater region are through its capacity for water storage and its role in carbon sequestration.

A surface’s ability to absorb water—its permeability—is one indicator of a landscape’s ability to mitigate such climate events as flash floods, as the volume and intensity of runoff are meaningfully affected by the proportion of a land area that is impervious. Permeability, too, can be utilized as an indicator of the overall health of water systems in developed areas, as it is linked to water quality, hydrology, and ecological function. For example, the combination of impermeable surfaces and runoff creates a need for costly water treatment that can be avoided when there is less impervious land cover. Eighty-eight percent of the study areas land cover is considered to be permeable, compared with 70 percent for the greater metro region.\(^5\)

Areas with a greater proportion of permeable surface also benefit from lower temperatures due to the presence of more vegetation and fewer paved surfaces that absorb heat, ever more valuable with continued warming expected. This cooling effect is supplemented by transpiration from trees in the four counties’ 1.2 million acres of forestland.\(^6\)

The carbon sequestration capacity of the study area was found to total 54.6 million metric tons, nearly half in Ulster County alone.\(^7\) The study area total represents close to one-third of the entire metro region’s carbon storage capacity.

**Habitat**

The Mid-Hudson’s connected open space, which is critical to long-term resilience, supports invaluable habitat and habitat migration pathways. In our present time of climate change, maintenance of high-integrity ecological areas such as those within and connected by these four counties will prove ever more valuable.

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5 NLCD 2011  
6 USGS  
7 National Council for Air and Stream Improvement’s COLE
The Nature Conservancy recently mapped clusters of open space in the Northeastern United States and the Canadian Maritimes that will be less vulnerable to degradation and continue to support biodiversity, even as the climate changes. They are “natural strongholds” for the future. Relative to similar sites, 49 percent of the total land area of the four Mid-Hudson counties was rated “above average” or “far above average” in resilience. For comparison, 31 percent of the greater metro region’s land area (inclusive of the four-county study area) earned those same ratings.

It is not just about the volume and types of open space, it is also about the connectivity of these lands. Development not only reduces the number of acres, it fragments the landscape. While the Mid-Hudson Valley’s diversity of landscapes is key to its resilience, its concentration of contiguous forest in particular serves as a local and regional asset that furnishes habitat and, as mentioned above, mitigates climate effects. These four counties have 707,718 acres of core, contiguous forest. That represents 37 percent of their total land area, and 36 percent of the greater metro region’s total contiguous forest.⁹

Air
The Mid-Hudson’s concentration of forested land also provides air quality benefits, as trees remove gaseous air pollutants through uptake. This and other factors lead to better air quality for residents and, ultimately, improved health factors. One way to illustrate the improved air quality of the study area on a human scale is to look at the number of poor-quality air days. From 2006 to 2012, these four counties experienced an average of 5.8 annual poor-quality air days. In comparison, the greater metro region experienced more than twice as many, with an average of 13.4 such days per year.¹⁰

Water
Source water protection and land use development are inextricably linked. Thus, another way the Mid-Hudson contributes to community resilience and health both within and beyond its boundaries is through its role as protector of two major regional drinking watersheds (along with other counties in all directions), which together contribute to the nation’s largest unfiltered drinking water system: The Croton Watershed and the Delaware-Catskill Watershed.¹¹ Many communities along the path of the NYC aqueduct directly benefit, as state law requires they be given access to these water resources. At the same time, municipal water sources and private well owners throughout the Mid-Hudson similarly benefit by sourcing their water in or near open space. Nearly 20 percent of the total area of our four study counties falls within the boundaries of drinking watersheds, which in aggregate contribute more than 1.9 billion gallons of water daily to half of New York State’s population, including significant portions of the study area.¹²

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*8 TNC  
9 RPA analysis, USGS and TIGER data  
10 RPA analysis, US EPA data  
11 NYC DEP  
12 RPA analysis, NYC DEP data*
And while only 55 percent of the metro region’s streams report healthy water quality by their state environmental protection agencies 81 percent of the Mid-Hudson region’s streams were reported to have healthy aquatic life conditions.\(^\text{13}\)

**Economy**

The abundance of open space positively affects local economies both directly and indirectly, particularly the tourism, agriculture, and, increasingly (but in accord with the region’s historic legacy), the arts and culture sectors.

**Tourism**

Visitors from near and far are drawn to the beauty and scenic vistas of the Mid-Hudson region. About one in ten of all Mid-Hudson jobs is in sectors related to tourism, generating $829.8 million in regional income.\(^\text{14}\) For context, the share of jobs in New York City in those same sectors is also about one in ten.\(^\text{15}\)

Visitors to these four counties from all 50 states and over 40 countries spent nearly $1.6 billion in 2015 on lodging, recreation, food, retail, transport, and second homes.\(^\text{16}\)

\(^{13}\) NYS DEC, NJ DEP, CT DEEP
\(^{14}\) NYS DOL
\(^{15}\) NYC & Company
\(^{16}\) Empire State Development Corporation (2015)

**Agriculture**

While agricultural land use and its influence on the economy has in many ways waned—and certainly shifted over the course of the last 100 years, agricultural sales and employment remain critical to the prosperity of the Mid-Hudson, particularly in Dutchess, Orange, and Ulster counties where the century-long decline in farming has recently shown signs of reversal. In 2012, according to the most recent data available, the USDA found that the Mid-Hudson region had over 277,000 acres dedicated to farming, producing $209 million of agricultural output—nearly double the $110 million reported in 2007. Those familiar with the area and the USDA survey methods’ limitations think this number is likely an undervaluation that fails to accurately account for farm stand transactions and the like. In that same year, 543 regional residents out of every 100,000 worked in agriculture.

![Tourism Jobs](image)

**Tourism Jobs**

Share of all employment within tourism sector

Data: NYS DOL, NYC & Company

![Visitor Spending](image)

**Visitor Spending**

Total annual direct spending by non-residents

Data: Empire State Development (2015)

![Agricultural Sales](image)

**Agricultural Sales**

Share of all agricultural sales from crops

Data: USDA (2012)
Quality of Life

Open space is a defining feature of the Mid-Hudson. The region’s unique natural beauty draws both visitors and new residents. In large ways and small, it defines communities’ feel, values, and way of life. An abundance of nearby open space influences the way residents get around, define a home, feed themselves and their families, socialize, and spend both working hours and leisure time. The resulting quality of life, a concept that is difficult to define but very real (and personal), is evidenced by measures of residents’ expressions of satisfaction—their opportunity to live healthfully, and to feel engaged by and invested in a community.

Resident Retention

Seventy-one percent of residents in the four-county area have lived in the same residence for 10 years or more, evidencing, in some measure, a desire to stay and the capacity to do so. Similarly, in 2012, 69 percent of residents reported no plans to move from the region in the near future. Most of those planning a move expressed an interest in leaving New York State altogether—often for economic reasons (59 percent).

Public Health

Mid-Hudson residents reap a number of benefits related to health and wellness, which are traceable to their physical surroundings. The State of the Region’s Health, a Regional Plan Association report on the role of geography, land use, and urban policy in determining health factors and outcomes, demonstrated that, on average, 10 percent of any person’s health is determined by physical environment, including the quality of the air and water that sustains them. These, in turn, are impacted by land use policies.

Numerous studies have found that people’s physical and mental health are enhanced whenever they are in contact with nature, whether it is just passively observing nature, or being fully and actively immersed in it. While statistics on certain health outcomes might be the product of self-selection, because communities that provide convenient access to nature tend to attract individuals with healthful lifestyles—or just the ability to afford said access—there is a good deal of evidence for “active ingredients” in nature, beyond just fresh air and water, influencing health. Exposure to nature, various bacteria, and biodiversity, as well as relief from light pollution and urban heat, can have a num-
ber of positive physical and psychological benefits, particularly for children. When development strategies to accommodate growth prioritize the conservation of adjacent open space—be it large swaths of land across the countryside, or small, contiguous tracts in Mid-Hudson’s small cities and villages—residents and visitors can continue to reap the benefits of both short- and long-term exposure to nature.

Consider two dimensions: recreation and access to fresh food. About 326,000, or over one-third of Mid-Hudson residents, live within a mile of an off-road walking, biking, or hiking trail. Close to eight in ten residents of these four counties live within three miles of a farmers’ market or farm stand.

Though the severity is uncertain, both the World Health Organization and the American Medical Association have documented multiple links between artificial light exposure and the negative health effects of consequently disrupted circadian rhythms and associated hormone levels. The Mid-Hudson’s relative lack of nighttime sky brightness and light pollution thus also serves as an asset to public health.

Nighttime sky brightness can also have a direct effect on habitat, disorienting nocturnal animal-navigation, and disrupting both animal activity patterns and the relationships between nocturnal predators and their prey. But the larger, lasting impacts on habitat and natural systems also remain to be seen.

### Stewardship

Stewardship encompasses the responsibilities and actions needed for the long-term protection of our environment. Protected open space is both an outcome of, and motivator for, stewardship. Broadly speaking, stewards may be members of the public, governments, and/or not-for-profit land trusts.

### Open Space Policy and Law

For a quarter of a century or more, the four county planning departments in the study region have been a willing resource, and persistent advocates for local land use actions and regional thinking to advance open space preservation. This is evidenced by original and updated county comprehensive, farmland protection, greenway and open space plans. Orange County’s leadership in the preparation of the Mid-Hudson Sustainability Plan, which has a significant focus on land preservation, is particularly notable. Ulster ($3.0M), Dutchess ($7.3M) and Orange ($1.5M) counties have authorized borrowing to share in the cost of the purchase of development rights. Of this total, by 2018 Dutchess had committed $4.81M and Orange $.77M. In one recent example of county, town, and non-profit collaboration,

“Numerous studies have found that people’s physical and mental health are enhanced whenever they are in contact with nature”
Ulster County drew upon their commitment to protect land in the purchase of development rights for the Taliaferro Farm in New Paltz, in which Ulster County, the Town of New Paltz, and Scenic Hudson each paid a third of the $387,000 cost.

There are 105 municipalities in the four-county region: six cities, 66 towns, and 33 villages. The study team visited the website of each of the 97 percent of those municipalities that have one, and collected publicly available open space plans. In the absence of published plans, the team documented references to open space in other places: in comprehensive plans, local codes, and elsewhere.

In addition to county-level planning, 23 percent of the local governments in the four-county region have open space plans, 22 percent alternatively refer to open space in their comprehensive plans, and 9 percent do so in their law or zoning codes (eCode).

Overall, a majority (56 percent) of municipalities include at least some mention of open space in their policies or laws. In each of the study area counties except Orange, the majority of local governments are addressing land preservation in their planning or legal codes.

With respect to level of government, in the four-county study area, villages are the most likely to have actual open space plans (27 percent), but towns are the most likely to address open space in some form overall (61 percent).

Preservation Bonds

Local governments may put to a public vote preservation measures that, if passed, allow the municipality to borrow funds or institute a real estate transfer tax in order to purchase parcels of land, or development rights thereof. These referenda are opportunities—via the ballot box—for the public to directly support or oppose proposed land preservation.

Of the 14 opportunities for voters to act on this issue in the study area since 2000, all but two passed. A countywide proposal failed in Putnam County in 2005, and another was defeated in Goshen in Orange County in 2003. The failed Goshen vote was followed by a successful result the next year, after the requested funds were reduced by half. Among the twelve successful votes, six passed by a margin of less than five percentage points. In fact, the 2006 bond in Gardiner passed by only a single vote. Seeking to bond rather than institute a real estate transfer tax has been a

---

**Table 3: Open Space Inventory by County and Level of Government**

<table>
<thead>
<tr>
<th></th>
<th>Study Area</th>
<th>Dutchess</th>
<th>Orange</th>
<th>Putnam</th>
<th>Ulster</th>
<th>County</th>
<th>Cities</th>
<th>Towns</th>
<th>Village</th>
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</thead>
<tbody>
<tr>
<td>Open space Plan</td>
<td></td>
<td>23%</td>
<td>27%</td>
<td>17%</td>
<td>11%</td>
<td>33%</td>
<td>17%</td>
<td>21%</td>
<td>27%</td>
</tr>
<tr>
<td>Comprehensive Plan</td>
<td></td>
<td>22%</td>
<td>30%</td>
<td>12%</td>
<td>33%</td>
<td>25%</td>
<td>17%</td>
<td>24%</td>
<td>18%</td>
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<tr>
<td>eCode</td>
<td></td>
<td>9%</td>
<td>7%</td>
<td>10%</td>
<td>22%</td>
<td>4%</td>
<td>12%</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>3%</td>
<td>7%</td>
<td></td>
<td></td>
<td></td>
<td>17%</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>No policy or law</td>
<td></td>
<td>44%</td>
<td>37%</td>
<td>55%</td>
<td>33%</td>
<td>38%</td>
<td>50%</td>
<td>39%</td>
<td>52%</td>
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<tr>
<td>Any policy or law</td>
<td></td>
<td>56%</td>
<td>63%</td>
<td>45%</td>
<td>67%</td>
<td>62%</td>
<td>50%</td>
<td>61%</td>
<td>48%</td>
</tr>
</tbody>
</table>

Source: SUNY New Paltz

**Table 4: Preservation Vote Measures 2000-2016**

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Date</th>
<th>Finance Mechanism</th>
<th>Conservation Funds at Stake</th>
<th>Conservation Funds Approved</th>
<th>Pass?</th>
<th>% Yes</th>
<th>% No</th>
</tr>
</thead>
<tbody>
<tr>
<td>LaGrange</td>
<td>2008</td>
<td>Bond</td>
<td>$2,000,000</td>
<td>$2,000,000</td>
<td>Pass</td>
<td>72.1%</td>
<td>27.9%</td>
</tr>
<tr>
<td>Red Hook</td>
<td>2007</td>
<td>Real estate transfer tax</td>
<td>$5,000,000</td>
<td>$5,000,000</td>
<td>Pass</td>
<td>50.6%</td>
<td>49.4%</td>
</tr>
<tr>
<td>Beacon</td>
<td>2006</td>
<td>Bond</td>
<td>$1,000,000</td>
<td>$1,000,000</td>
<td>Pass</td>
<td>51.9%</td>
<td>48.1%</td>
</tr>
<tr>
<td>Gardiner</td>
<td>2006</td>
<td>Bond</td>
<td>$1,500,000</td>
<td>$1,500,000</td>
<td>Pass</td>
<td>50.0%</td>
<td>50.0%</td>
</tr>
<tr>
<td>Marbletown</td>
<td>2006</td>
<td>Bond</td>
<td>$2,000,000</td>
<td>$2,000,000</td>
<td>Pass</td>
<td>50.2%</td>
<td>49.8%</td>
</tr>
<tr>
<td>New Paltz</td>
<td>2006</td>
<td>Bond</td>
<td>$2,000,000</td>
<td>$2,000,000</td>
<td>Pass</td>
<td>63.3%</td>
<td>36.7%</td>
</tr>
<tr>
<td>Warwick</td>
<td>2006</td>
<td>Real estate transfer tax</td>
<td>$15,000,000</td>
<td>$15,000,000</td>
<td>Pass</td>
<td>52.0%</td>
<td>48.0%</td>
</tr>
<tr>
<td>Beekman</td>
<td>2005</td>
<td>Bond</td>
<td>$3,000,000</td>
<td>$3,000,000</td>
<td>Pass</td>
<td>71.7%</td>
<td>28.3%</td>
</tr>
<tr>
<td>Putnam County</td>
<td>2005</td>
<td>Bond</td>
<td>$20,000,000</td>
<td>$20,000,000</td>
<td>Fail</td>
<td>48.7%</td>
<td>51.3%</td>
</tr>
<tr>
<td>Chester</td>
<td>2004</td>
<td>Bond</td>
<td>$4,400,000</td>
<td>$4,400,000</td>
<td>Pass</td>
<td>64.8%</td>
<td>35.2%</td>
</tr>
<tr>
<td>Goshen</td>
<td>2004</td>
<td>Bond</td>
<td>$5,000,000</td>
<td>$5,000,000</td>
<td>Pass</td>
<td>55.1%</td>
<td>44.9%</td>
</tr>
<tr>
<td>Goshen</td>
<td>2003</td>
<td>Bond</td>
<td>$10,000,000</td>
<td>$10,000,000</td>
<td>Fail</td>
<td>46.3%</td>
<td>53.7%</td>
</tr>
<tr>
<td>Red Hook</td>
<td>2003</td>
<td>Bond</td>
<td>$3,500,000</td>
<td>$3,500,000</td>
<td>Pass</td>
<td>82.8%</td>
<td>17.2%</td>
</tr>
<tr>
<td>Warwick</td>
<td>2000</td>
<td>Bond</td>
<td>$9,500,000</td>
<td>$9,500,000</td>
<td>Pass</td>
<td>52.2%</td>
<td>47.8%</td>
</tr>
</tbody>
</table>

Source: Trust for Public Land
more common choice, with ballots passing—albeit by slim margins—each of the two times such a tax for preservation purposes has been put up for a vote.

Although popular and mostly successful during the first decade of this century, land preservation referendum measures have not been put before the public in any municipality since 2008. As of 2017, about two-thirds of the authorized funds have been spent to protect an estimated 7,500 acres, at an average cost of about $5,000 per acre. Since the property tax cap was enacted in 2012, it has been a disincentive for municipalities to protect open space through this type of spending, because even where authorization was earlier achieved from a public vote, these funds are counted as an expenditure in the tax cap formula.

**Land Trusts**

It can be tricky identifying what entities or individuals are preserving land, as there is no central repository for this information, nor does any governmental office track it systematically. Further complicating the matter, many nonprofits effectively protect open space, e.g., Audubon societies, rod and gun clubs, fish and game clubs, and historic sites, though their primary mission is not land preservation. There are at least 30 land trusts in the study area with an explicit mission to preserve land, either via outright ownership or as facilitators/managers of protection through conservation easements with the ownership remaining private.

Among the four counties, Dutchess County has the largest amount of acreage preserved by land trusts, totaling over 44,000 acres. This work was achieved with the help of 17 land trusts. The Dutchess Land Conservancy, the largest land trust in the subregion with a single county focus, is responsible for a great majority of the preserved acres in the county.

In Ulster County, there are 13 land trusts, of which seven are focused exclusively within the county’s boundaries. These land trusts are oriented specifically toward defining geographic features: mountains, lakes, forests, and adjacency to the Hudson River. For example, there are land trusts for the Shawangunk Mountains, Roundout and Esopus creeks, the Hudson River, and Mohonk Mountain.

Of the 12 trusts preserving land in Orange County, only one works wholly within the county: the Orange County Land Trust (OCLT), which has helped protect nearly 6,000 acres there. In December 2016, the OCLT announced 961 acres in the Town and Village of Tuxedo will be preserved adjacent to the Sterling Forest State Park.

Putnam County has 11 land trusts working to preserve land, of which five concentrate solely on areas within the county.

Scenic Hudson and the Open Space Institute are both visible and active in all four counties. Scenic Hudson has conserved a total of 23,047 acres in these counties, and identified approximately 760,000 acres in the broader

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**Open Space Policy or Law**

Share of all municipalities addressing open space preservation in policy or law

Data: NYSORPA

**Public Support for Conservation**

Share of those polled citing open space preservation as a top priority for the region

Data: Marist Poll, 2012

**Land Trust Land Ownership**

Land owned by land trusts as percentage of total county land area

Data: NYSORPS, individual land trusts
11-county Hudson Valley area as priority targets for protection. The Open Space Institute has 140,743 protected acres across New York, and has facilitated the protection of an additional 338,805 acres—for both the state government and conservation groups—throughout the state.

Ownership
Data on land protected by individuals is sparse. However, by narrowing the lens to ownership by land trusts and utilizing data from the NYS Office of Real Property Tax, land trusts own less than 400 individual parcels comprising approximately 18,000 acres. Most of the parcels owned by land trusts are vacant or wild, forested land.

In total, these land trusts own 3 percent or less of the total land in all four counties. As such, in the Mid-Hudson region, the value of the properties these land trusts own is less than 1 percent of all exempt properties. In 2015, the total value of all tax-exempt properties was $23.4 billion, while the value of land-trust-owned parcels was $88.2 million (less than 0.4 percent).

Conclusion
The indicators described above represent a starting point. Much of the data used to develop these indicators are data that will be updated over time, creating the opportunity to track both progress and shortcomings in any given area. As the region continues to grow, and decisions are made around development and conservation, tracking the value of open space through these indicators will serve as a valuable tool to inform those decisions.
Today, a number of municipalities must grapple with the paradox that the benefits of protecting open space within their boundaries could lead to the loss of municipal revenue through tax exemptions. As this region grows, and demand for development increases in different communities, it is important to understand what is at stake when considering planning and development decisions. In order to determine how development pressure might affect unprotected open space, build-out scenarios were carried out for three areas in the Mid-Hudson Valley:

1. The greater Red Hook area in Dutchess County, including Red Hook Town, Red Hook Village, and Tivoli
2. The greater New Paltz area in Ulster County, including New Paltz Town and New Paltz Village
3. The greater Warwick area in Orange County, including Warwick Town, Warwick Village, Florida, and Greenwood Lake

In the socioeconomic and demographic forecasts developed by the New York Metropolitan Transportation Council—and looking ahead to anticipated growth by 2040 in the timeline for RPA’s Fourth Plan—population was allocated into parcels of land considered developable under current zoning. Build-out allocations were carried out under two scenarios: “concentrated” and “dispersed.”

While each of these areas differs by place type, surrounding geography, and population, they all share in common the fact that current zoning would allow for significant development of unprotected lands. By examining two different approaches to development in each place, it is clear business-as-usual development would consume more open space than would a more thoughtful approach based on smart growth principles. As the region continues to grow, municipalities will need to consider how they would like to develop and redevelop land in ways that ensure a strong quality of life for residents.

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2 Our first step was to build a model to find the maximum number of additional lots that could be added under current zoning. We excluded all land that was protected within the 100-year flood zone, on steep slopes, and/or in wetlands.
3 Concentrated scenario: Built out what we defined as the downtown to 40 percent capacity and put remaining growth outside of the downtown/center. Dispersed scenario: Built out what we defined as downtown to 15 percent capacity and put remaining growth outside of the downtown/center.
Red Hook (town), Village of Red Hook, and Tivoli are currently home to 11,228 residents, with projected population growth of 1,601 (14 percent) by 2040. Using the same assumptions as in the Warwick build-out, there is enough unprotected land remaining to subdivide and build housing for 10,450 residents—which is 6.5 times the projected growth in population over the next 25 years.
NEW PALTZ

New Paltz (town) and Village of New Paltz currently support a combined 14,123 residents. With their tight-knit center and proximity to recreational open space, New Paltz is anticipated to grow by 14 percent, or 2,027 residents, by 2040. But under current zoning, and if the average household size does not change drastically, there is enough unprotected land eligible for subdivision to house 23,734 new residents.
WARWICK

In the town of Warwick and its villages—Warwick, Florida, and Greenwood Lake—there is a current total population of 31,288 residents, with an additional population of 4,062 (13 percent) projected by 2040. Under current zoning, assuming the average household size holds steady, there is enough unprotected land remaining to subdivide and build housing for 18,408 additional people—which is 4.5 times more growth than has been projected for the region.
Adding Value: Open Space Conservation in the Mid-Hudson Valley | Regional Plan Association | August 2018

Property Tax Exemption
Policy & Law

Property tax is arguably America's most hated tax.\(^1\) It is paid in large lump sums, and the amounts collected are not linked to ability to pay. It directly increases the cost of shelter—one of life’s essentials—and nonpayment threatens retention of most families’ largest economic asset: their home.

All these negatives are exacerbated in New York’s Mid-Hudson counties, where the burden of the property tax is greater, on average, than almost anywhere else in the nation (Table 5).

In New York State, all the revenue produced from property taxes is dedicated to supporting local governments and school districts. So there is local focus to the enmity toward this tax, intensified by its burden, and the unique opportunity offered local citizens to vote on school budgets.

Land use regulation affects the base for the property tax: the aggregate value of real property and the improvements on it. In New York, both the valuation of real property and improvements on it and the regulation for land use—that is, assessing real property and placing parameters around what may or may not be built—are largely within the purview of local government. So, again, the focus is local.

Thus, land use policy and property tax policy are inextricably intertwined, with land use choices necessarily affecting the property tax base and therefore property tax burdens, and vice versa. Each policy—and their interaction—is therefore always potentially highly controversial in local communities.

Adding further to the complexity, decision-making processes in both of these areas of policy are not entirely local, but rather state and local.

No tax may be levied in New York without state authorization, and all are subject to parameters and conditions set out by the state government (e.g., property tax caps). Planning and zoning are administered by cities, towns, and villages, with a limited county role. However, local land use decision-making is directly and indirectly affected by a range of state policies that shape or preempt local choice, concerning such matters as environmental impact, economic development, farming, forestry, and, of course, land use preservation.

Effective land preservation policy in New York’s complex intergovernmental environment requires purposeful engagement in both land use and property tax policy.

This section of the report focuses on property tax policy both in general and in particular on the purpose, character, and impact of property tax exemptions as a major tool for land preservationists.

Property tax exemptions’ source, scope, and extent

In 2016, 44 percent of local government revenues (outside New York City) were obtained from the real property tax ($34.7 billion) (Figure 3). In that same year, about 25 percent of the value of real property in the state was exempt from taxation for county purposes as a result of state and/or local policy.\(^2\) These exemptions diminish the property tax base, shifting the burden to the remaining taxable properties in a jurisdiction.

Most exemptions are a result of state policy. Not surprisingly, exemptions put into effect with no provision for a local role are met with the most skepticism by local government officials. An analysis by the New York State Department of Taxation and Finance, based on 2016 assessment roles, concluded that the percentage of exemptions resulting from “local option” in Hudson Valley counties were 13.31 percent for Putnam, 11.57 percent for Dutchess, 10.81 percent for Orange, and 13.0 percent for Ulster.\(^3\) Thus, in just under nine of ten cases in the region, exemptions were imposed on localities.

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\(^2\) http://orps1.orps.ny.gov/cfapps/MuniPro/muni_theme/exsumb2.cfm?swis=59&roll_yr=2016&prefix=Statewide 25.41 percent was exempt for city/town purposes and 29.2 percent for school district purposes.

\(^3\) https://www.tax.ny.gov/research/property/reports/exempt/16exrpt.htm#table6
Table 5: Hudson Valley County Property Tax Rankings — 2017 (Total N is 3143)

<table>
<thead>
<tr>
<th>County</th>
<th>Median tax</th>
<th>As % house value</th>
<th>U.S. Median tax rank</th>
<th>As % median income</th>
<th>US Rank — % Median income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Westchester</td>
<td>$9,003.00</td>
<td>1.62</td>
<td>1</td>
<td>8.1</td>
<td>5</td>
</tr>
<tr>
<td>Rockland</td>
<td>$8,268.00</td>
<td>1.73</td>
<td>5</td>
<td>7.95</td>
<td>7</td>
</tr>
<tr>
<td>Putnam</td>
<td>$7,331.00</td>
<td>1.75</td>
<td>11</td>
<td>7.44</td>
<td>11</td>
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<tr>
<td>Dutchess</td>
<td>$4,873.00</td>
<td>1.51</td>
<td>35</td>
<td>5.73</td>
<td>45</td>
</tr>
<tr>
<td>Orange</td>
<td>$5,586.00</td>
<td>1.79</td>
<td>24</td>
<td>6.5</td>
<td>25</td>
</tr>
<tr>
<td>Ulster</td>
<td>$4,208.00</td>
<td>1.74</td>
<td>58</td>
<td>5.9</td>
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<tr>
<td>Sullivan</td>
<td>$3,645.00</td>
<td>1.95</td>
<td>97</td>
<td>6.05</td>
<td>36</td>
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</tbody>
</table>

Source: http://www.tax-rates.org/new_york/rockland_county_property_tax

Table 6: Equalized full value of county tax bases — 2008 and 2016

<table>
<thead>
<tr>
<th>County</th>
<th>2008 Value</th>
<th>2016 Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dutchess</td>
<td>$45,980,415,000</td>
<td>$37,304,754,000</td>
</tr>
<tr>
<td>Orange</td>
<td>$48,970,449,000</td>
<td>$38,098,983,000</td>
</tr>
<tr>
<td>Putnam</td>
<td>$18,074,819,000</td>
<td>$15,134,138,000</td>
</tr>
<tr>
<td>Ulster</td>
<td>$24,129,611,000</td>
<td>$20,816,134,000</td>
</tr>
<tr>
<td>NYS</td>
<td>$2,648,218,900,000</td>
<td>$2,901,254,849,000</td>
</tr>
</tbody>
</table>

Source: SUNY New Paltz Analysis

Figure 3: Local Government Revenues, New York State

Policy purposes and the impact of property tax exemptions

The New York State constitution provides for full exemptions without local choice for “…real or personal property used exclusively for religious, educational, or charitable purposes as defined by law and owned by any corporation or association organized or conducted exclusively for one or more of such purposes and not operating for profit.” In a landmark case concerning whether the Town of Gardiner in Ulster County had the discretion to tax land owned by the Mohonk Trust, New York’s Court of Appeals unanimously interpreted the constitutional categories requiring full mandatory exemption—“charitable,” “educational,” and “moral improvement”—as including “lands for environmental or conservation purposes which are necessary for the public good and which are open to and enjoyed by the public.” For the two types of partial exemption provided for by the state legislature—most importantly, for land preservation—the exemption for agriculture is subject to local option, while the one for forestry is not.

The New York State Department of Taxation and Finance (NYSDTF) notes, “Real property tax exemptions are granted on the basis of many different criteria, including the use to which the property is put, the owner's ability to pay taxes, the desire of the state and local governments to encourage certain economic or social activities, and other such considerations.” The limited number of categories in which exemptions are reported by the department precludes an accurate tabulation of their scope or value when used specifically for land stewardship—but that figure would clearly be small.

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4 Article XVI §1.
6 https://www.tax.ny.gov/research/property/reports/exempt/13exrpt.htm#1
The total value of property tax exemptions for county purposes in Mid-Hudson counties in 2016 ranged from a low of 11 percent (Putnam) to a high of 20.16 percent (Dutchess). All were lower than the percentage for the state as a whole (25.41 percent). Densely settled places—often cities and villages—are the jurisdictions within the four-county region in which total proportions of exempt property exceed county averages. For example, in Ulster County, exemptions comprised 34 percent of the value of real property in the Town of New Paltz, and only 6 percent in the adjacent Town of Gardiner.

Exemptions are also a focus of public attention because of their increasing numbers and use as incentives for a variety of policy goals. A 2009 state senate task force report identified 16 exemptions that had been augmented or added since 2001, with some—but not all—subject to local choice. Among their varied purposes were to benefit volunteer firefighters and ambulance corps members in selected counties; encourage first-time home buyers; incentivize agricultural business expansions; diminish local impacts of changed valuation of nuclear power plants; support the renewal of rail infrastructure; improve housing for agricultural workers; support development of commercial and industrial space for residential use in selected cities; encourage development of solar and wind energy; encourage new residential construction in selected cities; increase tax relief for senior citizens and persons with disabilities; support flood relief in specified counties; and encourage construction of LEED certified buildings.

Property tax exemptions offered as development incentives by county Industrial Development Agencies (IDAs) are often particular sparks for local political disputes. Though, in practical terms, IDA exemptions are partial, because they are offset by payment-in-lieu-of-tax agreements (PILOTs), they are reported as full exemptions by NYSDTF. The growth in their use during the period of 2008 to 2015 was substantial when measured by both the number of exemptions and their full value—with the rate of increase in the four counties two to three times as great as it was statewide. The number of these exemptions grew by 25 percent statewide and 80 percent in the region, while their full value rose 29 percent statewide, and 65 percent in the region. Exemptions for economic development bring critical, often passionate, attention to the general question

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7 https://www.tax.ny.gov/research/property/reports/exempt/16exrpt.htm#table3 Rankings of counties in percentage of value exempt: Putnam (56, 11.0 percent; Ulster (53, 14.44 percent); Orange (45, 18.52 percent); Dutchess (43, 19.26 percent)
8 State does not report data for villages. Towns reported here often incorporate villages. The jurisdictions are: Ulster County (Kingston, Esopus, New Paltz, Shawangunk, Ulster and, Woodstock), Putnam County (Patterson, Phillipstown), Dutchess County (Beacon, Poughkeepsie, East Fishkill, Hyde Park, North East, Town of Poughkeepsie, Red Hook, Rhinebeck, and Washington), Orange County (Middletown, Newburgh, Port Jervis, Goshen, Highmonds, Mt. Hope, New Windsor, and Wallkill).
9 New York State Senate Select Committee on Budget and Tax Reform. Evaluating the Needs for and Costs of New York State Property Tax Exemption (December 2009) p. 9–12.
of what the value of property tax relief is, and its impact on communities. It is just a short step to questioning the use of exemptions for other purposes, such as land preservation.

Economic and political context

Exemptions draw added attention during bad economic times when property values decline. In this circumstance, local governments seek to cut costs, but may still need to raise tax rates to sustain service levels from a diminished base. This adds to the pressure on taxpayers during times that are already hard. Despite a higher statewide total, the value of real property in Mid-Hudson counties in 2016 remained lower than in 2008, just prior to the Great Recession.

Not insignificantly, as a political matter, exemptions are an attractive option for some elected officials because their budgetary impact is less visible—revenue foregone is not budgeted, nor is it recorded as an expenditure. In the 2017 state legislative session, there were dozens of bills submitted that sought to create or enhance property tax exemptions.

Key facts about property tax exemptions not well understood

1. **Tax exemptions are pervasive.** There were 4,246,792 exemptions in New York State in 2016. Almost three in five (57 percent) parcels of land in the state were granted at least one exemption.

2. **Most exemptions reduced taxes for private citizens, not large organizations.** Nineteen of 20 (95 percent) exemptions were partial, mostly for private homeowners (e.g., School Tax Relief (STAR), veterans, senior citizens). The total value of these was one-third (34 percent) of the value of all exemptions in New York.

3. **STAR is not a tax exemption program,** though it is classified as one. An exemption removes value from the tax rolls without replacing it. School Tax Relief (STAR), the widest reaching partial “exemption,” benefits most private homeowners. It is an administrative technique, now being phased out, that uses state general tax-levy funds to pay a part of individuals’ property tax liability for schools.

4. **Most fully exempt property is government owned.** Statewide, two-thirds of the wholly exempt parcels of property (66 percent) were government owned. These comprise over three-quarters (77 percent) of the value of wholly exempt property and half (50 percent) of the value of all exemptions in the state.

5. **The state government often compensates localities for exemptions on undeveloped state owned properties within their borders, but not in accord with a systematic policy.**

   a. According to the NYSDTF, “Local taxes are levied on the millions of acres which comprise the state-owned forest preserve of the Adirondack and Catskill regions, and on reforestation lands, wildlife management areas, certain state parks, prison lands, and lands used for certain flood control projects.”

   b. In some instances, the state made payments in lieu of taxes (PILOTs) or compensated local governments for the provision of certain specified services. The bases for calculating PILOTs vary considerably in state law.

   c. Some state agencies make voluntary or in-kind arrangements with host local governments in recognition of demands they may make on such local services as fire protection and emergency medical response.

6. **The value of wholly exempt privately-owned land was 15 percent of all exempt value statewide.**

7. **The Mid-Hudson has a relatively high concentration of privately owned, fully exempt property.** A higher proportion of wholly exempt property, with a greater exempt value, was privately owned (41 percent) in the four counties than statewide (33 percent).

Efforts to have the land that is already protected stay protected—and to preserve more open space—will benefit from both changes in state policy and practice that elevate public understanding of the true use and character of property tax exemptions, and systematic state acceptance of the fiscal impacts of its policy choices.
Open Space Protection & Land Use

The following four recommendations build directly upon findings from this study’s research around indicators and its buildout analyses, as well as incorporate recommendations from RPA’s Fourth Regional Plan.

**Track and integrate indicators of open space value into decision making**

This study has produced an array of indicators that can help various stakeholders better understand the value provided by open space in the region. Indicators are particularly useful in that they can be updated to reflect the latest data and serve as a way of tracking movements in one direction or another. Across the country, successful efforts—such as the Long Island Index—have featured indicators across a variety of fields as a way of measuring progress or calling attention to challenges that need to be addressed. We encourage such an effort be undertaken to continually update many or all of the indicators recommended by this report to help inform stakeholders and drive policies that advance open space conservation while ensuring quality of life. Such information could be used to inform local, regional, and state planning efforts—as well as those to conserve unprotected spaces. The more information that stakeholders and decision-makers have, the better their decisions will be.

**Prioritize the protection of land to help adapt to a changing climate**

Our changing climate is adding greater urgency and different strategic direction to the cause of sustainability and management of natural resources. State and local governments, along with land trusts, need to prioritize the protection of natural and agricultural lands to promote healthier communities and adapt to a changing climate. This requires greater collaboration between community organizations and government, increased funding, and updating of prioritization criteria. These criteria should include consideration of the land’s potential to store carbon, capture and filter stormwater, and protect the drinking-water supply; and should also prioritize biodiversity, habitat
Figure 7: The Tri-State Trail Network
Source: Regional Plan Association
migration, food production, and recreational benefits. (For additional information about this recommendation, see RPA’s Fourth Regional Plan).

**Create a Tri-State Trail Network**

The tri-state region includes hundreds of iconic parks and landscapes, from the forested open spaces of the Catskills, Highlands, and Pinelands to the sandy shores of New Jersey and Long Island. But these spaces are largely disconnected from each other and from the population centers that use them. Linking these areas of precious natural beauty will boost recreational opportunities, catalyze economic development, and enhance the biodiversity of our natural systems, leading to better health and quality of life for our residents. New York State is currently building the north-south Empire State Trail that will extend over 700 miles from New York City to Canada. Federal, state, and local government should collaborate with land trusts, trail advocacy groups, and other partnerships to develop a complementary, linked north-south integrated network of biking, hiking, and walking trails from underutilized rights-of-way such as roadways, rail lines, transmission lines, and pipelines. (For additional information about this recommendation, see RPA’s Fourth Regional Plan).

**Adopt smart growth policies in the region’s municipalities**

As stated in RPA’s Fourth Plan, the most sustainable places in the region are those that are already developed, as higher concentrations of people and infrastructure make for communities that are more efficient in their use of energy, water, and other natural resources. Proposals in the Fourth Plan advance solutions that encourage growth in already developed places around expanded and improved transit—from rural and suburban downtowns to urban centers. As demonstrated in this study, there are multiple ways to build out undeveloped land within the boundaries of a municipality. Current zoning in most places allows for the development of open space—even in areas subject to flooding. As the region grows, we have a particular opportunity to address these needs and create places that improve the health and well-being of residents. With updated mixed-use zoning we can grow up—not out—which will transform underutilized commercial and industrial
strips in Mid-Hudson cities, villages, and town centers into walkable, complete communities, and mitigate the impact of pollution and fossil fuel dependency. And with the support of municipal and state government, communities can promote healthy food, local arts, and culture—and lively public spaces that contribute to the enjoyment of everyday life. Through planning and smart-growth zoning practices, we can grow where we are already developed and conserve the natural resources around us.

State & Municipal Programs

This report recommends that six actions be taken by state government to increase local government’s capacity to protect open space, expand public knowledge of the actual character and impact of property tax exemptions on local governments, elevate the visibility of the continued use of exemptions as a state policy tool, and achieve equity in state policy for offsetting the local impact of exemptions.

The tax cap formula should be revised to remove the disincentive for municipalities that have already gained voter approval to bond for monies to protect open space

In places where residents have already given explicit permission to their local government to borrow monies for the sole purpose of protecting open space, the tax cap should not be a barrier to acting on this authority. The state needs to revise the tax cap computation so that it does not have the unintended effect of further tightening tax cap limits.

The STAR program is not a property tax exemption program, it should be administered and reported on distinctly from actual property tax exemption programs

In implicit recognition of this, the state has been managing STAR applications made since March 15, 2015, through the NYSDTF (not through local assessors) as a tax credit, not a property tax exemption. Had this change been in place in 2016 it would have reduced the number of reported exemptions by 2,979,265 (70.1 percent).

To dispel misconceptions, state law must be amended to make the impact of all partial and full exemptions more visible and understandable to local citizens

Since 2008, state law has required every local government to include in its budget a report to “show how much of the total assessed value on the final assessment roll or rolls used in that budgetary process is exempt from taxation.” The number of exemptions and their value must be given. The intention of this requirement is “assuring that the public has access to information about the extent and impact of property tax exemptions in their communities.” Clearly, further steps are needed to meet this goal.

 Require annual reporting of newly adopted tax exemptions and their impact by the state comptroller

Legislation creating new property tax exemptions is regularly introduced in the state legislature. The use of property tax exemptions to incentivize a great range of behaviors is politically attractive because it provides a continuing financial benefit without additional taxation or budgeted spending. Moreover, the “cost” is felt at the local level, not by the state. A process is needed by which a responsible official not involved in decisions that create new exemptions (the state comptroller) is annually required to give visibility to exemptions increasingly being used as policy tools, the diminishing of local resources without local consent, and the indirect triggering of public pressure on existing exemptions central to land preservation efforts.

Bill A10919, also introduced in 2018 by Cahill, requires the state comptroller to prepare such a report annually.

1 NYS Real Property Tax Law §495
The state must adopt and implement a consistent, systematic policy regarding payments made to localities to relieve the local burden created by the state’s own fully exempt undeveloped and developed properties

Most tax exempt property is publicly owned. State-owned property provides regional and statewide services, but the fiscal impact of the exemption is entirely local. It has long been understood that New York lacks a consistent policy regarding compensation of localities for the effect on their property tax bases of exemptions that serve statewide policy goals. Diversity in the law reflects particular fiscal, political, and policy considerations at the time exemptions are adopted far more than any discernible equitable standard. Fear of costs at the state level and concern about potential negative local impacts impede consideration of change, continuing unfair burdens from state practices in many localities. Previous studies have resulted in no ameliorative action.

Another Cahill-introduced bill, A10920, calls for a new study to be jointly undertaken by the NYSDTF and the Department of Environmental Conservation to bring renewed attention to this matter, and develop an equitable systematic statewide policy approach to it.

The state must take responsibility for local effects of state policy

Wherever it pursues regional or statewide policy goals through the use of exemptions on undeveloped or marginally developed property as an alternative to direct state service delivery, and the local impact is disproportionate, the state should pay local property taxes on privately owned exempt property equivalent to payments it makes on state-owned property serving the same policy or programmatic purpose.

Kevin Cahill's bill A10921, introduced in 2018, provides that where full exemptions for undeveloped privately owned property are required by state law for a state-policy purpose as an alternative to direct state provision of a service—and there is no local role in determining the exemption, and the fiscal impact of the exemption on a local government exceeds the mean for all local government in its class—the state government should compensate localities for property tax impacts in the same manner that it does for state owned property. The bill also requires that the state develop and implement a methodology for annual reporting—by owners or managers of properties on which the state makes such payments—on the local, regional, and statewide benefits of fully exempt properties compared to the estimated value of the exemption provided. This report must be noticed and posted on the website of the local government within which the property is located.
Appendix: Draft Exemption Legislation

EXPLANATION—Matter in italics (underscored) is new; matter in brackets [ ] is old law to be omitted.

STATE OF NEW YORK
10962
IN ASSEMBLY
May 29, 2018

Introduced by M. of A. CAHILL — read once and referred to the Committee on Real Property Taxation

AN ACT to amend the real property tax law, in relation to the preparation of exemption reports for local municipalities The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. Subdivisions 1 and 2 of section 495 of the real property tax law, as added by chapter 258 of the laws of 2008, and subdivision 1 as further amended by subdivision (b) of section 1 of part W of chapter 56 of the laws of 2010, are amended to read as follows:

1. Whenever a county, city, town, village or school district is required to prepare an annual budget, the official required to prepare a tentative or preliminary version of that budget shall [annex thereto], in addition, prepare an exemption report. This report shall be [on a form prescribed by the commissioner and] organized in accord with a template and within categories provided by the commissioner, specifying groups of persons or institutions benefited by any exemption created by statutory or constitutional provision, and shall be linked by reference to related programs or categories in the budget of the local jurisdiction for that year. Such report shall show [how much of the total] the presence or absence of local choice in granting the exemption, and specify by category and in total the assessed value that is exempt from taxation on the final assessment roll or rolls used in that budgetary process [is exempt from taxation]. This report shall list every type of exemption granted, identified by statutory authority, and shall show (a) the cumulative impact of each type of exemption expressed either as a dollar amount of assessed value or as a percentage of the total assessed value on the roll, (b), the percentage that each category of exempt property comprises of the total assessment roll, the net revenue forgone as a result of each category of exemption and in total, and the effect on the local tax obligation for a single family residential property of average value in the jurisdiction if the category of exemption were removed, calculated on the basis of the amount to be raised by taxation and tax rate or rates adopted by the jurisdiction’s governing board for use in funding the annual budget, and taking account of the cumulative amount expected to be received from recipients of each type of exemption as payments in lieu of taxes or other payments for municipal services[, and (c) the cumulative impact of all exemptions granted]. [Exemptions Exemption categories that result in an impact of less than one percent on the final assessment roll] may be aggregated as a single entry. In no case shall an individual exemption recipient be named in the report.

2. Notice of this report shall be included [in with] any notice of the preparation of the budget otherwise required by law. The report shall be separately posted on any bulletin board maintained by the budgeting authority for public notices and on any website maintained by the budgeting authority. This report shall be [annexed to] released with any tentative or preliminary budget and [shall become part of] the final budget.

§ 2. This act shall take effect immediately.

STATE OF NEW YORK
10919
IN ASSEMBLY
May 29, 2018

Introduced by M. of A. CAHILL — read once and referred to the Committee on Real Property Taxation

AN ACT to amend the real property tax law, in relation to requiring the comptroller to prepare and disseminate a report on exemptions from taxation

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. Section 496 of the real property tax law is amended by adding a new subdivision 3-a to read as follows:

3-a. The comptroller shall, by January thirtieth of each year, prepare and disseminate a report: (a) describing all bills enacted into law in the previous year creating or altering exemptions from taxation of privately owned real property; (b) summarizing such bills’ purpose; and (c)
detailing to the extent possible such bills' estimated first year and subsequent year fiscal impact on all classes of local governments.

§ 2. This act shall take effect immediately.

STATE OF NEW YORK
10920
IN ASSEMBLY
May 29, 2018

Introduced by M. of A. CAHILL — read once and referred to the Committee on Real Property Taxation

AN ACT to amend the real property tax law in relation to state payment of local taxes on certain privately owned lands that the state requires to be fully exempt from property taxation

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. The real property tax law is amended by adding a new section 537 to read as follows:

§ 537. State payment of local taxes on certain privately owned lands.

(a) For all counties, cities, towns, villages and school districts in which privately owned property is fully exempt from property taxation for educational purposes without the requirement of local consent as provided by section one of article sixteen of the state constitution, and in which the proportion of fully exempt privately owned property exceeds the mean for the state for the class of local government within which that county, city, town, village or school district is included, and is certified as performing the function or the functions of state-owned public parkland by the secretary of state, and that can demonstrate significant service to citizens of the state residing outside the county in which the civil subdivision is located in accord with criteria specified by the secretary, the state of New York shall pay all property taxes in the same amounts and at the same time as it pays taxes on certain state-owned properties as specified in section five hundred thirty-two of this title.

(b) Owners or managers of all fully exempt private properties for which the state pays property taxes under the provisions of this section shall report on or before December thirty-first of each year to the secretary of state, in a form and in accord with criteria specified by the secretary, on the value of regional and statewide services provided by those fully exempt properties, compared to the estimated value of the state payment provided.

§ 2. This act shall take effect on the first of January next succeeding the date on which it shall have become a law and shall apply to assessment rolls prepared on the basis of taxable status dates occurring on or after such date.
Regional Plan Association is an independent, not-for-profit civic organization that develops and promotes ideas to improve the economic health, environmental resiliency and quality of life of the New York metropolitan area. We conduct research on transportation, land use, housing, good governance and the environment. We advise cities, communities and public agencies. And we advocate for change that will contribute to the prosperity of all residents of the region. Since the 1920s, RPA has produced four landmark plans for the region, the most recent was released in November 2017. For more information, please visit [www.rpa.org](http://www.rpa.org) or [fourthplan.org](http://fourthplan.org).

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