

Regional Environmental Planning in a Home Rule State: Against all Odds

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Abstract

U.S. Home Rule is born out of mistrust of central government along with skepticism toward established experts. In that mindset, a community knows best how to deal with their local matters. Municipal governments in New Jersey decide if alcohol can be sold or if a new housing development will increase the property tax base. Home rule gives each New Jersey municipality significant power, including land-use decisions that have consequences beyond local boundaries. In these matters, County, State, and Federal government levels can only provide friendly suggestions. Any regional environmental planning is based on goodwill; the State Office of Planning Advocacy has no power to force inter-municipal, inter-county, or regional collaborations. The primary State environmental tool with some impact on local decisions is the New Jersey Department of Environmental Protection (NJDEP) permitting process for new developments. Projects that will impact natural resources and habitat qualities must undergo a substantial review that allows the NJDEP to influence proposed development through required permitting decisions.

However, sustainability, resiliency, and quality of life challenges require integrative and proactive environmental planning on a larger scale. The leadership of Middlesex County in central New Jersey has charged our team with developing an Integrated Cultural Landscape and Ecosystem Services Plan (L-Plan). A comprehensive County-wide ecological assessment combined with an analysis of the County's cultural landscape, embracing the interrelationships between human-wellbeing and landscape design.

The presentation will outline how our methodology builds on the tradition of interdisciplinary environmental planning developed by Ian McHarg at the University of Pennsylvania in the 1970s that has similarities with European comprehensive landscape planning. The innovation lies in applying landscape urbanist approaches toward a regional environmental decision-making framework while engaging with municipal decision-makers and the public.

Introduction

The challenges of climate change are hitting New Jersey particularly hard. Sea-level rise threatens our coastal regions; a significant increase in torrential rain causes regular flooding. New Jersey's state government has acknowledged the challenges and is undertaking several programs to mitigate the effects of climate change. The current state approaches include the protection of the coastline, retreat from highly vulnerable locations, and the reduction of impervious surfaces. Our project, the Integrated Cultural Landscape and Ecosystem Services Plan for Middlesex County contributes to these efforts while further considering environmental qualities and the cultural landscape as essential components of residents' quality of life.

Land-use decisions at the local level hinder the implementation of innovative state-wide, regional, and local concepts. Zoning is included in the powers transferred to municipalities by the state legislature as part of the Home Rule Act of 1917 (Reock et al. 2001). The New Jersey State Plan can only suggest development guidance through concepts including smart growth or transit-oriented development. However, these concepts cannot overrule local planning decisions; the final say is with the towns. It is

telling that the responsible planning office on the state level is called the “Office for Planning Advocacy.” Advocacy builds support for good planning based on goodwill, not based on power. The situation becomes even more complex considering that the most influential municipal players are outside of the State; most of New Jersey is either a suburb of New York City or Philadelphia. Public transportation and motorway designs serve the daily commute to these cities. Providing housing for workers employed in these job markets is the main driver for residential development in New Jersey.

This paper will sketch out how home rule is engrained in the New Jersey public mindset dating back to colonial days and will summarize some of the current approaches for environmental planning in that context. We will outline initial ideas for a county-level environmental planning concept, transforming some European landscape planning approaches into the U.S. context. Because the planning-administrative systems are very different on both sides of the Atlantic, we will use a current project, the Middlesex County Cultural Landscape and Ecosystem Services Plan, to discuss how relevant environmental actions can be integrated into an environmental decision-making framework.

Home Rule

Home rule is defined as the ability of a local government to act and make policy in all areas that have not been designated to be of statewide interest through general law, state constitutional provisions, or initiatives and referenda (Krane et al. 2001). The idea of home rule is rooted in North American colonial history. Small groups of settlers were organizing the matters of their town, while the English government authority was far away across the ocean. Individual freedom in the relatively isolated early settlements was intricately linked to the ability to participate in the town meeting as a legal inhabitant. Frederick Steiner (2008) points out that the fight for independence was fueled by an opposition against the “landed elite of the mother country.” The ability of free individuals to own and utilize a piece of land was a significant achievement of the new republic.

By the end of the nineteenth century, rapid industrialization and urbanization caused significant problems for New Jersey, including the urgent need for housing for new immigrants. The situation was worsened by political corruption and extensive lobbying (Israel 2012). In strengthening local decision-making, the reform movement saw the opportunity to break political sleaze and succeeded in 1917 by adopting the New Jersey Home Rule Act. This act by the state legislature assigned significant powers, including zoning and land use, to the individual municipalities (Salmon 2013). Of course, this is not cemented in stone for eternity. If the New Jersey state legislature decided that an increased need for planning coordination requires that some of these powers returned to the state, a new state legislative act could make that happen. The process of returning zoning power back to the state was used when the three New Jersey planning regions were established (see below).

Among the undesired side effects of home rule is the fact that there are currently few incentives for towns to actively coordinate in matters of environmental planning. Further, two things make that inter-municipal collaboration particularly difficult: The competition for property tax and a cultural animosity between diverse resident groups. Property tax is the financial foundation for local governments, providing major support for local school districts, municipal governments, and counties. (Reock et al. 2001). Because of that, it is in the interest of a municipality to attract wealthy residents without children that can provide significant property tax without placing a burden on the school system. While the competition for property tax impacts zoning and land use, which will be discussed further below, the diversity of the state has produced cultural barriers between communities. From early colonial days, diverse immigrant groups landed in the region and formed relatively homogeneous communities. Members of those groups preferred to stay among themselves (Lurie 2012, 40). A New Jersey state law from 1878 fostered this

self-segregation. That law allowed property owners who controlled at least 10 percent of the taxable real estate in a township to petition the County Freeholders to hold a special election and create a new borough (Israel 2012, 193). For example, the number of municipalities in Bergen County grew from 10 towns in 1861 to 70 in 1909. Today, New Jersey has 564 independent municipal units for a population of 9,3 Million residents, ranging from large cities (Newark 311,549) to tiny units such as Walpack Township in Sussex County with seven residents, according to the 2020 census.

Approaches to Regional Environmental Planning

The power of zoning for individual municipalities becomes particularly challenging under the perspective of climate change; small towns cannot tackle this global problem. Further, the real powers at play are not New Jersey towns but the big neighbors: New York City and Philadelphia (see also Höfer 2019). One may say that the two metropolitan regions split New Jersey. The northern half is clearly oriented toward New York City, while the southwest is linked to Philadelphia. The dimensions of these two metropolitan regions are illustrated by the extent of the associated planning organizations: The New York City Regional Planning Association (RPA) and the Delaware Valley Regional Planning Commission (DVRPC) for Philadelphia.

Both organizations can be considered “think tanks” without real administrative teeth but have considerable political clout. The map (figure 1) shows how the New York suburbs meet the Philadelphia suburbs in central New Jersey; only the coastal counties along the mouth of the Delaware River are not included. This makes New Jersey the ultimate suburban state with the highest population density in the US: 488/km², which is even higher than the population density of the Netherlands, 423/km², a country that often serves as a poster child for well-developed regional planning in a high-density suburban situation. The reality of New Jersey is that of a high-density suburban state serving the two major cities of New York and Philadelphia. Imagine how a small municipality might manage this extraordinary development pressure when property tax is the dominant source of income. The major land-use decisions have to produce revenue to keep property taxes from rising for current residents to provide beneficial services. In addition, a small town does not have the resources to hire professional full-time planning staff in the administration. The local planning board makes major planning decisions with the help of hired engineering and planning firms, which sometimes makes it challenging to counterweight the interests of prominent real estate investors.

The situation becomes even more challenging when fragile environmental resources on a regional scale are at stake. Therefore, the state legislature decided to take back some of the municipal planning power and transfer that power to three regional agencies. Two of them, the NJ Pineland Commission and the Highlands Water Protection and Planning Council, focus

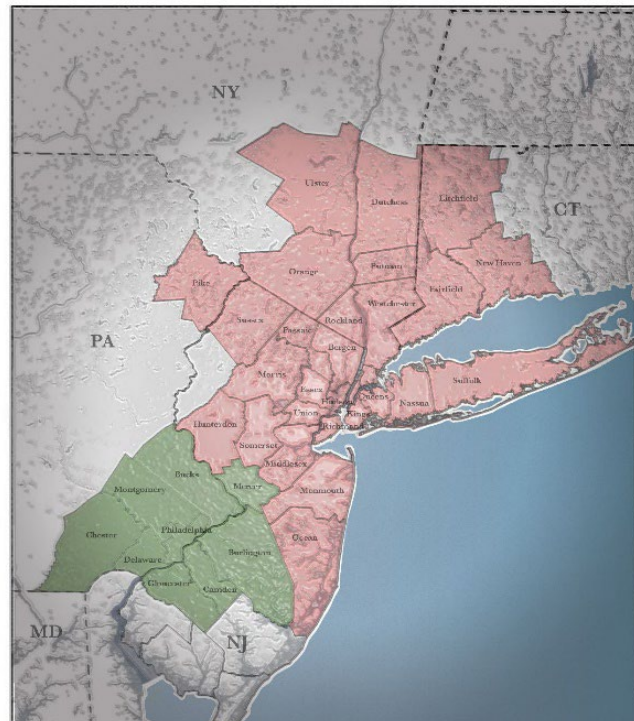


Figure 1: Extent of the New York City Regional Planning Association (RPA) and the Delaware Valley Regional Planning Commission (DVRPC).

on preserving open space and natural resources. The NJ Pineland Commission was formed in 1979 in partnership with the federal government to preserve, protect and enhance natural and cultural resources. With a significant remaining pine forest, the local municipalities in this southern area must follow standards that channel growth toward appropriate areas while safeguarding resources. The Highlands Water Protection and Planning Council was established in a northern section in 2004. This State regional planning agency aims to protect natural resources focusing on drinking water for Northern New Jersey and New York. The third planning region was not initially focused on preserving natural resources. Still, it was established to better coordinate the waste dumping in the Meadowlands marshes, just on the doorstep of New York City. The Hackensack Meadowlands Development Commission was created in 1969 to efficiently organize landfills and distribute tipping fees fairer among the municipalities. The 2001 name change to New Jersey Meadowlands Commission indicated a shift in focus toward ecological restoration. The environmental community in New Jersey was very frustrated when the Christy Administration integrated the Meadowlands into the New Jersey Sports and Exposition Authority, again focusing on economic development in 2015.

Frederick Steiner (2008) considers this planning region approach an innovative initiative addressing environmental challenges. All three planning regions have in common that they can overrule home rule because the state has taken back municipal planning authority through legislative acts. However, this slightly new distribution of power is still causing conflicts with residents who oppose what they consider a government overreach and unfair limitation of private property rights. This can indicate that a general overhaul of home rule is not on the current political agenda.

Outside of these planning regions, the main tools to limit the loss of open space are state land acquisition programs in which the state government uses taxpayers' money to buy land. The Green Acres Program was already established in 1961 when the suburban expansion was in full swing. It aims to develop a system of interconnected open spaces focusing on the natural environment and its historic, scenic, and recreational resources for public use and enjoyment. Municipalities and Counties can apply for funding but must prove the open space needs with an updated Open Space and Recreation Plan. In 2007, New Jersey voters approved the expansion of the Green Acres Program, establishing the Blue Acres Program with a focus on acquiring properties (including structures) that have been damaged by, or prone to incurring damage caused by, storms or storm-related flooding, or that may buffer or protect other lands from such damage, are eligible for acquisition. After Superstorm Sandy (2012), the New Jersey government exhilarated the program, actively encouraging landowners to voluntarily sell their properties for market value. The third program focuses on agricultural land. The Farmland Preservation program also allows the acquisition of land but has a much stronger focus on supporting agriculture. Farmers can sell development easements which will prohibit any commercial or residential development on the land in the future.

Climate enhances the need for coordinated environmental planning. The Rutgers Climate Institute (2022) established that the warming atmosphere can contain more moisture released in heavy rains. This results in more intensified storms. Increased rainfall coupled with rapidly growing development and impervious surface cover adds to the debilitating effects of heavy rain events on both inland and coastal communities. At the same time, the lack of new stormwater technologies reduces the community's ability to bounce back. In addition to the Blue Acres Program (under the Green Acres Program), the State has developed other programs to combat the negative impacts of flooding and prevent future detriments, including the Coastal Resiliency Plan and Resilient NJ. These programs provide funding through grants to acquire flood-prone property and enhance landscape function through flood risk reduction projects, increasing protection for high flood-risk communities.

Planning regions and buyout programs are essential environmental tools but have limited application in dense urban and suburban areas where most of the land is already developed. The complex environmental challenges demand integrating resource management, ecological preservation, and cultural landscape quality aspects in all planning and decision-making layers.

Landscape and Ecosystem Services Plan Middlesex County

Middlesex County is one of New Jersey's communities utilizing the above-mentioned state programs for resiliency efforts and open space acquisition. The County is highly urbanized, especially adjacent to the various waterfront landscapes. The County's urbanization is attributed to industrial progress throughout the 19th and 20th centuries. This progress resulted in land-use changes transforming the rural and natural landscape into industrial and suburban developments.

This is the context for the currently ongoing update of the Middlesex County Masterplan led by the Rutgers Voorhees Transportation Center (VTC). Our team at the Rutgers Center for Urban Environmental Sustainability (CUES) collaboratively contributes to the planning process by developing a Cultural Landscape and Ecosystem Services Plan (L-Plan). Middlesex County's Destination 2040 (D 2040) Master Plan is a county-level planning document aiming to provide local governments with a decision-making framework developed through various functional plans focused on smart development, environmental planning, pedestrian and bicyclist safety, housing, transportation, etc. The D 2040 Master Plan links to the 25 local level municipalities within the County through outreach and decision-making action toolkits. Our L-Plan is one of several functional plans aiming to incorporate an environmentally focused decision-making framework into regional-scale planning.

It is noteworthy that Steiner (2008) refers to the above-mentioned Pine Land Planning Region as a positive example for applying comprehensive landscape planning principles in New Jersey. However, the main difference to our project is that the state government transferred municipal planning authority through a legislative act to the Pinelands Commission, creating a limited home rule zone. In our case, there is no change in home rule. Our L-Plan has to produce tangible outcomes in the existing context through a process-oriented, flexible environmental decision-making framework. This approach is inspired by landscape urbanism principles "which landscape replaces architecture as the basic building block of contemporary urbanism" (Waldheim 2006, 11) and a "landscape thinking" (Waldheim 2016, 4) that values a dynamic process producing flexible outcomes. We consider this approach suitable in the home rule context because it is "uncritical of capitalist urbanization and suspicious of governmental intervention" (Thompson 2012,16). Landscape urbanism respects property ownership and values the role of private investment.

Our Integrated Cultural Landscape and Ecosystem Services Plan (L-Plan) advocates for the environment and its relationship to the people. The L-Plan combines a comprehensive ecological assessment with an analysis of Middlesex County's cultural landscape to provide an environmental decision-making framework for a variety of County departments and agencies. The methodology for developing the L-Plan analysis and action items follows the tradition of interdisciplinary environmental planning developed by Ian McHarg (1971) while adding a cultural landscape component.

McHarg's traditional planning and mapping techniques provide a base analytical toolkit to study Middlesex County's ecological and cultural landscape elements. Overlay methods define priority areas for further study and locations for landscape enhancements. We have chosen three main aspects of our L-Plan analysis to illustrate our take on this environmental planning tradition. The selected examples of climate change and habitat loss include ecological habitats of concern, priority flood mitigation areas, and land at development risk. A geographic information systems (GIS) ranking process identified each

category's high, medium, and low-risk areas. The findings exemplify priority locations informing actions pertaining to specific landscape stressors.



Figure 2: Upland forest for sale.

Ecological habitats of concern are ecologically viable habitats that provide critical resources for indigenous flora and fauna and invaluable ecosystem services (natural capital) such as clean water, clean air, fertile soils, and recreational opportunities for residents of Middlesex County. A weighted overlay factor determined Middlesex County's most critical ecological habitats of concern. The analysis concluded that Middlesex County's landscape comprises roughly 203,000 acres. Of that acreage, 31,737 acres (16%) hold open space preservation status, meaning this land will never be developed beyond recreational use. Middlesex County has roughly 104,629 acres in the high, medium, and low ecological habitat of concern areas (51% of total acres); of that acreage, only 27% is protected land under Green Acres Open Space preservation.

Land at Development Risk

Natural land in Middlesex County consists of various land use covers, including vacant land, wetlands, agricultural, and forested land. Natural lands outside of preserved open space and farmland preservation designations are at development risk as they lack state-level protections. The County contains roughly 50,000 acres of natural land at development risk (figure 2).

The most at-risk natural areas reside adjacent to highway development outside wetland delineation boundaries. These lands are natural but zoned for development. Half of the County's total acres at development risk are wetlands protected by the NJDEP (state-level government), while 17,500 are unprotected upland forests. Unpreserved agricultural land accounts for 6,000 acres of land at development risk. Upland forests and agricultural land are more susceptible to development due to the lack of state-level regulation (figure 2).

Flooding is a severe and growing threat to many Middlesex County communities, exacerbated by climate change and increased structural development. Climate change variables that factor into escalated flooding threats are sea-level rise, amplified storm intensity, and increased severe storm frequency. Coupled with intensified development and impervious surfaces, climate change places more people and built capital at risk within each watershed. Amplified stormwater impacts—such as erosion, flooding, and pollution—pose severe threats to water quality and existing natural lands, including wetlands and riparian corridors that are home to threatened and endangered species.

These three analytical examples: ecological habitats of concern, priority flood mitigation, and land at development risk, locate Middlesex County's landscape potential by utilizing traditionally McHarg planning weighted overlay methods to analyze existing conditions. The existing conditions reveal ecological habitat threats and inform opportunities, locate flood mitigation priorities, and identify land at severe threat of development leading to habitat loss. The overlays prove that regional-scale efforts will best encompass landscape strategies across the entire county.

Cultural Landscape

Mapping the cultural landscape is difficult, particularly in suburbia. The traditional European landscape idea refers to the picturesque agricultural space that is not visually impacted by industry and modern urbanization. The idea of a beautiful landscape refers to the land formed by tradition and inherited from the ancestors. In the American cultural tradition of an immigrant country, the landscape is the space of opportunity that provides the land for the pursuit of happiness. The term cultural landscape is limited to selected spaces.

Because of the possible diverse interpretations of cultural landscapes, our team was interested in the perspective of Middlesex County residents, utilizing a public crowd-sourced photograph survey to understand how a narrative can be linked to the County's physical landscapes by everyday people. The online survey asked participants to upload a photo of their favorite outdoor place, submit a location, and answer a few demographic and place connection questions. We found that places are culturally important because they are linked to narratives through self-identity in a place, provide a space for memory creation, and are places for people to experience nature. Viewsheds and waterfronts were among the top linkages to a favorite outdoor place, including experiences with loved ones linked to a specific location. During the height of the COVID-19 Pandemic (2021), outdoor places also helped people in times of need, allowing for safe outdoor space use in times of uncertainty. This linked narrative portrayed by everyday people informed a cultural landscape analysis of industrial and agricultural communities, downtowns, and multiple agricultural, riverfront, beachfront, and park viewsheds.

Landscape Types and Action Structure

The ecological assessment and cultural landscape analysis informs the development of landscape types, providing an implementation framework linking landscape influencers to prescribed actions. Land-use categories such as commercial, industrial, residential, agriculture, barren, and open space are the backbone for regional-scale landscape enhancements breaking free from municipal boundaries. Land-use types analyzed on a parcel-by-parcel basis reflect the cultural landscape difference between each category. Examples of cultural landscape types include warehouses, strip malls, and high to low-density housing units. The goal is to utilize the landscape characteristics unique to each type to aid influencers in implementing prescribed actions. This organization strategy moves beyond traditional parcel boundaries into land-use and cultural landscape-type regions.

The L-Plan outlines action items that reference the overall goals developed with the Destination 2040 planning process. Each action is supported by an existing county program or initiative, with potential funding sources or resource guides, for those influenced by the action (individual home-owner, municipal government, etc.). The strategies can apply to all types, while the actions are specific implementations per type to meet the goal. This approach respects municipal home rule authority while utilizing regional planning competence to advocate for coordinated landscape actions.

Conclusion

Home rule is an achievement of the reform movement with a strong tradition in New Jersey, offering residents the opportunity to actively engage in local matters and make decisions for the future of their town. But what do we expect from our towns? Is it just low taxes, a hopefully short commute to work, and ample parking? Our L-Plan raises the bar. Suburbia can be more than a conglomerate of profitable land uses lined up along roadways; it can become a place to be. Our survey showed that residents' relationship with their environment is formed by stories and experiences of individuals or groups that add to the meaning of place. The interaction between people and place forms a cultural landscape that is not

limited to critical historic sites or spectacular natural scenes. Our landscape approach includes the strip mall and the parking lot, the retention basin of the warehouse, the industrial waterfront, the charming main street, and the picturesque park. Residents can expect these diverse locations to become a sequence of places, a suburban story worth telling.

Stitching together the diverse places and stories will be the goal of a proposed Middlesex County Greenway System, a 640-km linear natural or human-made corridor used for recreation, active transportation (bike trails), or habitat conservation, currently developed in 41 segments.

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