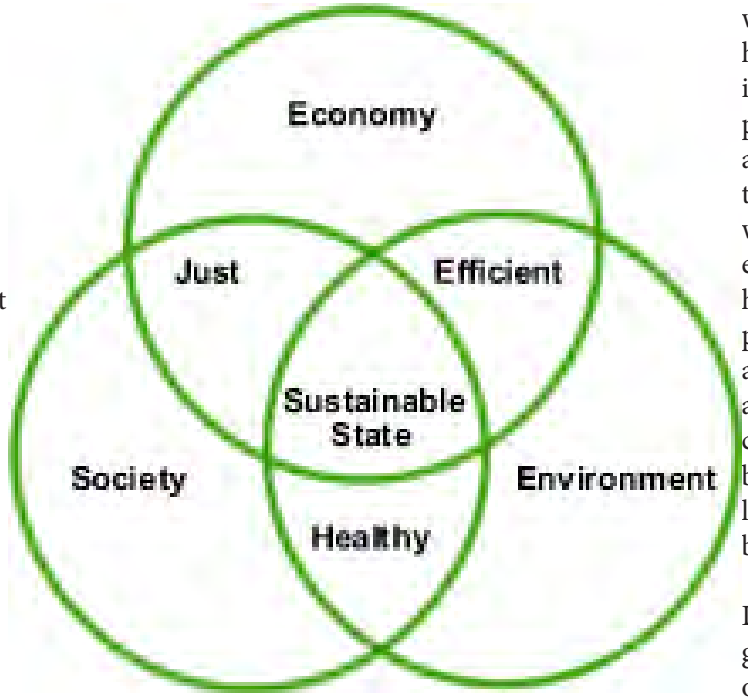
SUSTAINABILITY

SUSTAINABILITY

Sustainability is a term used to describe practices and tools that link the environment to the economy and human society. The etymology of this term came from a 1987 report by the United Nations World Commission on Environment and Development ("The Brundtland Commission"), where it describes sustainability as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." The United States Environmental Protection Agency (US EPA) states that "[s]ustainability is based on a simple principle: Everything that we need for our survival and well-being depends, either directly or indirectly, on our natural environment. Sustainability creates and maintains the conditions under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic, and other requirements of present and future generations. Sustainability is important to making sure that we have and will continue to have the water, materials, and resources to protect human health and our environment."[1]



Too often the term sustainability is relegated to describe tools and practices that are environmentally friendly. While not incorrect, this minimizes the full meaning of the concept. It would be the same as if the concept of public safety was used to describe police highway patrol, instead of acknowledging the many other aspects of public safety, including other law enforcement activities, but also fire prevention, emergency management, and emergency medical assistance.

Instead, sustainability should be viewed as a much broader paradigm involving consideration of the environment, society, and economy. For example, while a practice or action might be viewed as beneficial to the economy in the short term, it could also carry negative impacts on the environment and society, and potentially long-term costs required for mitigation of these impacts. Likewise, a land use plan that encourages development of houses and businesses on large lots, or one where land preservation is used to prohibit unwanted development (rather than managing floodplains or protecting critical habitat) may create a lot of "green" space, but it may exclude those without access to an automobile, and cause additional environmental impacts from increased vehicle usage and stormwater pollution from increased impervious surfaces created from more roads and parking areas to access these sites. Green lawn areas often require additional irrigation and chemical treatment, which can pollute nearby waterways. More roads and parking areas create more heat in summer months (known as the "urban heat island effect"), which can exacerbate localized air pollution that then affects sensitive individuals, such as older adults and those with asthma. Roadway salt treatment in the winter can also run off into nearby waterways, requiring additional costs down the line to ensure clean drinking water, or to reestablish native fish habitat. Finally, the additional linear miles and acres paved to support this type of development, just like any other infrastructure, require regular maintenance and replacement. As a result, low density development comes with added costs that are eventually passed on to businesses and residents; and generally speaking, larger lots require longer roads that are financially supported by fewer people.

Defining sustainability is often accompanied through a graphic depiction (known as a Venn diagram) of three overlapping circles, where each circle represents the central elements of sustainability: environment, economy, and society. A version of this graphic, adapted by the New Jersey Department of Environmental Protection (NJDEP), provides additional nuance to these practices, such as if something is environmentally friendly and economically friendly ("efficient"), or socially and environmentally friendly ("healthy"), as ways to capture the many facets of this term.

Solar Panels. Source: Donna Brennan, Bergen County

This Element evaluates the existing efforts in Bergen County to address sustainability through these different facets. Considering the complexity of sustainability relative to how many of its actions and practices are interrelated, it is not entirely possible to separate each out under separate headers; in fact, sustainability and sustainable practices flow through the goals and objectives of each of the elements of this Master Plan. Furthermore, a "one-size-fits-all" approach that can address a certain issue is not often possible; similarly, sustainability requires an evaluation of the environmental, economic, and social costs of specific actions, identifying an approach that seeks to best balance the three. As a result, the issues identified in the other elements of this Master Plan are also applicable to this Element. With an understanding of the existing efforts underway and issues facing Bergen County, this Element outlines goals and objectives for the county related to sustainability to effectuate the vision for growth and development that will sustain and optimize Bergen County's economic, environment, and social quality of life.

EXISTING PROGRAMS & INITIATIVES

RESILIENCE PLANNING

The concept of resilience, in the context of planning, has recently emerged as an important aspect of managing extreme weather, particularly in the aftermath of Hurricane Sandy in 2012. Here, resilience refers to the ability of a community to safely manage weather events, from protecting people and property from the impacts of these events, to allowing them to quickly return to daily life with as minimal interruption as possible. As a result, resilience addresses many aspects of land use, transportation, safety, and operations: identifying ways to remove people, property, and infrastructure from risk to the greatest extent possible, and where these items cannot be moved, identifying approaches that minimize damages. Resilience, as a component of sustainability represents a comprehensive approach to managing the built and natural environment. For the purposes of this Element, however, resilience will be examined through the topic of protection from flooding and related weather events.

As described in the Environment and Natural Resources Element, Bergen County faces unique risks from climate change. One notable example is Teterboro Airport, which was specifically identified by the Regional Plan Association (RPA) as being particularly at risk from sea level rise.[2] RPA finds that the 3 major airports (John F. Kennedy International Airport ("JFK"), LaGuardia Airport, and Newark Liberty International Airport) as well as the major corporate airport (Teterboro Airport) are all affected by sea level rise and storm surge to different degrees. JFK can withstand a sea level rise of 6 feet but will require special protection from storm surges. LaGuardia and Newark can withstand a sea level rise of 3 feet but are vulnerable to a sea level rise of 6 feet. Teterboro is expected to be inundated with as little as 3 feet of sea level rise. Forecasts vary on when sea levels will reach this point, with the RPA indicating that 1 foot of sea level rise could occur by the 2030s, and 3 feet as early as the 2080s. Research data from the independent organization Climate Central estimate that even 1 foot of sea level rise could inundate parts of the airport.[3]

Bergen County has been engaged in incorporating resilience as part of its Multi-Jurisdictional All-Hazards Mitigation Plan Update in 2015 following Hurricane Sandy, as well as the recently adopted 2020 All-Hazards Plan. The 2020 plan identified several actions to improve resilience, including:

- Inventory and assess risk to buildings, infrastructure, facilities, and equipment and retrofit accordingly;
- Elevate or acquire floodprone structures;
- Floodproofing and protection to critical facilities and infrastructure;
- Elevating critical infrastructure to above the 500-year flood event;
- Floodplain and stormwater management; and,
- Upgrades to the Overpeck Creek Tide Gates.

While the term "redundancy" can connote wastefulness and unnecessary excess, in this context, redundancy serves as a component of resilience by ensuring that extreme weather events and flooding do not interfere with the operations of critical facilities, such as the distribution of water, fuel, and electricity and wastewater management to promote public safety and continuity of services.

REDUNDANCY

While the word "redundant" is often associated with waste and inefficiency, in the context of resiliency, redundancy is an important consideration. If a storm disrupts utility services, such as electric, water, or wastewater, redundancies, through alternatives, rerouting, or backup systems, help to minimize the disruption for people and businesses.

WHAT IS RESILIENCY?

The National Academy of Sciences defines resiliency as "the ability to prepare and plan for, absorb, recover from, and more successfully adapt to adverse events."[4] This definition is included in the American Planning Association's (APA) Climate Change Policy Guide, a document intended to help shape policy-based actions and influence resiliency outcomes. The Climate Change Policy Guide is based on six policy areas that are also the principles for APA's Comprehensive Plan Standards for Sustaining Places:

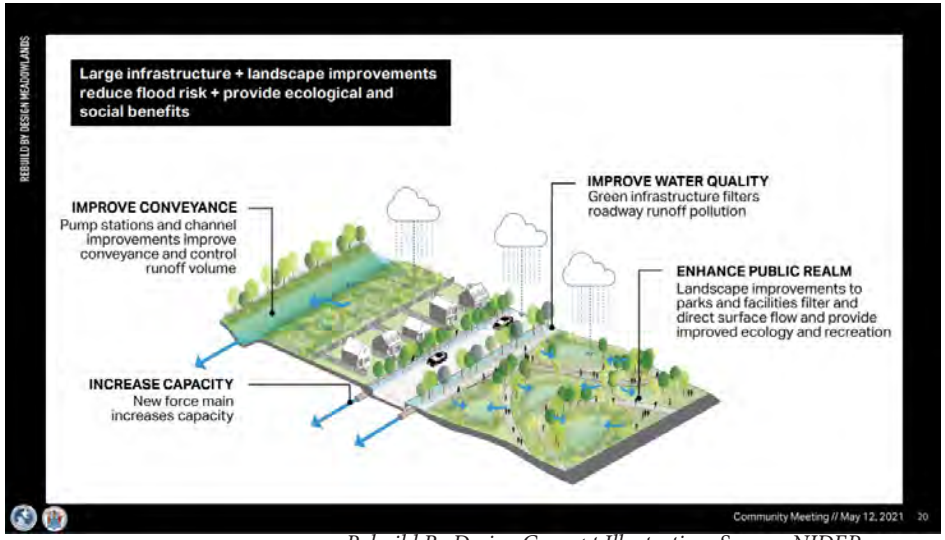
- Livable Built Environment
- Harmony with Nature
- Resilient Economy
- Interwoven Equity
- Healthy Communities
- Responsible Regionalism

APA's Climate Change Policy Guide notes the significant role of all levels of governments in resiliency planning and describes the important role of state governments to "develop and implement plans to address climate change and its impacts…"and to "…use climate as a lens through which to view all other state actions to ensure they are doing everything possible to reduce the impacts of climate change."[5]

Leading the way is New Jersey with the release of the first state Climate Change Resilience Strategy on October 12, 2021. The Climate Change Resilience Strategy was developed with input from an Interagency Council on Climate Resilience representing seventeen State organizations and "establishes a baseline, suggests a prioritization of key public policy concerns, and presents a framework for continuous progress."[6] The document was released almost on the nine-year anniversary of Superstorm Sandy which caused massage damage in New Jersey on October 29, 2012. The National Oceanic and Atmospheric Administration estimates Sandy caused at least $70 billion in damages, making it among the costliest storms in U.S. history.[7]

The Strategy includes lessons learned from Superstorm Sandy and is based on six core priorities to advance resiliency: Build Resilient and Healthy Communities; Strengthen the Resilience of New Jersey's Ecosystems; Promote Coordinated Governance; Invest in Information and Increase Public Understanding; Promote Climate-Informed Investments and Innovative Financing; and Coastal Resilience Plan.[6] The Strategy has 125 actions to support the priorities and strengthen NJ communities.

Lastly, APA's Hazard Mitigation Policy Guide states that hazard mitigation is a key component to a resilient community and that the return on investing in mitigation has shown benefits of at least 4:1 and often higher returns. Mitigation, adaptation, and response/recovery actions build community resilience and together can reduce the severity of hazardous events through avoidance and modification to the natural and built environments. Resiliency includes planning for critical infrastructure, often referred to as "Lifeline Planning and is focused on the critical components of infrastructure necessary to maintaining the social, economic, and public health well-being of communities, not just the physical."[8]



Rebuild By Design Concept Illustration. Source: NJDEP

REBUILD BY DESIGN: MEADOWLANDS

As referenced in the Environment and Natural Resources Element, following Hurricane Sandy the federal government sought to identify new and innovative approaches to storm recovery and long-term resilience through the Rebuild by Design competition and program. One of the submitted proposals to receive funding was Rebuild by Design: Meadowlands, which includes the Bergen County communities of **Carlstadt, Little Ferry, Moonachie, South Hackensack,** and **Teterboro**. This program will focus on providing flood protection through infrastructure designed to block extreme high tides and storm surges, including floodwalls, surge barriers, and pump stations. These infrastructure features will be complemented with non-structural features such as freshwater basins and expanded wetlands in the Meadowlands to increase flood storage capacity. Designs for the project have recently been finalized, and it is anticipated that construction will take place over the next few years.

COMMUNITY RATING SYSTEM

As referenced in the Environment and Natural Resources Element, the federal government, through the Federal Emergency Management Agency (FEMA), provides communities the ability to access subsidized flood insurance through participation in the National Flood Insurance Program (NFIP) if they agree to regulate floodplain development based on a minimum set of standards. Currently, 68 Bergen County municipalities,[9] and the New Jersey Sports and Exposition Authority (NJSEA) participate in the NFIP. FEMA permits, and actively encourages communities to adopt standards that are more stringent than the minimum requirements in the NFIP. Under the Community Rating System (CRS), communities that wish to adopt higher standards than the NFIP minimum requirements can receive reductions in flood insurance premium rates. Participation in the CRS program rewards communities for activities that help reduce flood risk, which include a mix of regulatory actions, flood management programs (i.e., acquisition of flood-prone properties, floodplain management plans, drainage system maintenance, emergency preparedness and response), and providing information to the public on flood risk and how to minimize flood damage. Not all activities need to be completed locally, however, meaning that communities can take credit for programs or regulations implemented on the state and county levels. Each activity is credited a certain number of points, which then translate to the percent reduction for the community's flood insurance premiums. As of October 2021, 9 Bergen County municipalities (**Dumont, Englewood, Garfield, Little Ferry, Lodi, Oakland, Ridgewood, Rochelle Park,** and **Westwood**) and the NJSEA participate in the CRS program.

LOW IMPACT DEVELOPMENT AND GREEN INFRASTRUCTURE PRACTICES

As described in the Environment and Natural Resources Element, development of roads and buildings creates impervious surfaces which inhibit natural infiltration of water, leaving runoff to collect and transport materials, chemicals, or even heat from these surfaces into the ground or waterways, polluting them and causing greater problems. Thermal pollution, generated when stormwater travels over hot surfaces and directly into waterways, can stress fish and other aquatic life that require a certain temperature for survival. Improper or excessive use of lawn treatment chemicals can trigger algal blooms in waterbodies and reduce oxygen availability. Winter roadway treatments using salts can harm freshwater species as well as contaminate and degrade water supply. In communities with combined stormwater and wastewater systems, ineffective stormwater management can overwhelm the system during rain events and cause sewage discharge into waterways. In Bergen County, developed lands occupy a significant portion of the landscape. Therefore, management of stormwater is necessary to protect surface and groundwater supplies relied upon not only by plants and animals, but also residents, visitors, and businesses.

Green infrastructure, or Low Impact Development (LID) refers to design techniques used to manage stormwater in a way that mimics or employs natural processes to capture stormwater where it falls, enabling it to absorb into the ground or planted areas, evaporate, or be stored for reuse, instead of immediately directing it toward a storm sewer. Green infrastructure can include vegetated green roofs, downspout planter boxes, planted strips along roadways and sidewalks, and rain gardens, but can also include rain barrels and porous pavements. In contrast "gray" infrastructure refers to stormwater management that includes drains, pipes, outfalls, and in the case of communities with combined stormwater and sewer systems, sewers, to collect and quickly remove stormwater. Green infrastructure is often employed in conjunction with gray infrastructure by managing the first inch or two of rain at the source, thereby reducing stormwater pollution from routine weather events, while also freeing up capacity for the gray system during more extreme weather events.

Under existing guidelines from the New Jersey Department of Environmental Protection (NJDEP), major developments are required to incorporate green infrastructure "to the maximum extent practicable" (N.J.A.C. 7:8); however, NJDEP recently acknowledged that this involved a certain measure of subjectivity. In response, the Department recently proposed changes to the state's stormwater management rules (N.J.A.C. 7:8) that will require developers to utilize green infrastructure to meet the minimum stormwater management standards for water quality, groundwater recharge, and stormwater volume control as part of any major development. If approved, these rules could significantly change how stormwater is managed in New Jersey.

GREEN INFRASTRUCTURE

Green infrastructure refers to design techniques used to manage stormwater in a way that mimics or employs natural processes to capture stormwater where it falls instead of immediately directing it toward a storm sewer. Green infrastructure allows stormwater to either absorb into the ground or planted areas, evaporate, or be stored for reuse, and includes such designs as vegetated green roofs, downspout planter boxes, planted strips along roadways and sidewalks, and rain gardens, but can also include rain barrels and porous pavements. "Gray" infrastructure refers to stormwater management that includes drains, pipes, sewers, and outfalls used to collect and quickly remove stormwater. Gray infrastructure also refers to combined stormwater and sewer systems. Green infrastructure can be optimized when it complements gray infrastructure by managing the first inch or two of rain at the source to reduce stormwater pollution from routine weather events, while also freeing up capacity for the gray system during more extreme weather events.

GREEN BUILDING

Similar to green infrastructure, green building design refers to construction techniques utilized to minimize negative external impacts to the natural environment and human health, and can include conservation of water, wastewater, and energy. The practice of green building can range from efficient fixtures and appliances, to energy collection (including wind, solar, and geothermal), sourcing of construction materials, maintenance and operations, and community design. Green infrastructure is often a component of a "green building" project. To quantify how "green" a project is, several organizations, most notably the U.S. Green Building Council (USGBC)[10] have created rating systems for green building and design. The USGBC's program, known as Leadership in Energy and Environmental Design (LEED), is used to certify design, construction, operations, and maintenance for new buildings, renovations, operations, and even neighborhoods and municipalities. Similar to the CRS program, various activities are assigned a point value, and the total number of points awarded to a project determine its certification level, which start at "Certified," and then progress to the higher levels of "Silver," "Gold," and "Platinum." The Meadowlands Environment Center at Richard W. DeKorte Park, shown in the photo below in **Lyndhurst,** was the first public building in the state to be awarded LEED Platinum.

Meadowlands Environment Center. Source: Colliers Engineering & Design.

LEED CERTIFICATION

Leadership in Energy and Environmental Design (LEED) is a program created and managed by the U.S. Green Building Council is one of several rating systems available that have been designed to quantify the degree to which a building is "green." LEED has certifications for the design, construction, operations, and maintenance for new buildings, renovations and operations of existing buildings, and even on the scale of neighborhood and municipal certification, where site selection and neighborhood design (i.e. mix of uses, mix of housing types, bicycle/pedestrian friendliness) are important factors. Projects earn points across different categories, including location and transportation (such as access to public transportation or ride sharing facilities, provision of bicycle storage and changing rooms, preferential parking for fuel efficient vehicles and carpools, alternative fueling stations), sustainable sites, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, and innovative practices. Based on the number of points, a project can earn one of four rating levels: starting at "Certified" (40-49 points), "Silver" (50-59 points), "Gold" (60-79 points), and "Platinum" (80 points or greater). In February 2019, the City of Hoboken became the first LEED Gold rated municipality in New Jersey under the LEED for Cities program, based on efforts to address such issues as flood mitigation, energy efficiency, and alternative transportation options.

ELECTRIC VEHICLE PARKING

The transportation network will also increasingly require attention to electric and other alternative fuel vehicles. Electric vehicles and partial electric vehicles (vehicles with internal combustion engines that are used to extend the range of a vehicle) have become more commonplace as more automakers offer different options, as technology improves the range of vehicles, and as prices continue to decrease, making them more competitive with standard internal combustion vehicles. One of the top impediments to electric vehicle use in New Jersey, however, is the concern that there is insufficient charging infrastructure available, often referred to as "range anxiety."[11] As the Regional Alternative Fueling Stations map indicates, public charging stations in Bergen County are still limited. While vehicles can often be charged in a household garage with a regular outlet, a challenge persists for those that live in apartments or do not have a driveway. The county has taken steps to improve access, installing charging stations at Van Saun and Overpeck parks, as well as at the County Administration Building and at the Paramus Annex.

To begin addressing this issue and expanding the reach of electric vehicles, the State of New Jersey has taken several actions to encourage greater adoption of electric vehicles. Municipalities are required to consider places of electric vehicle infrastructure as part of their Master Plans, Master Plan Reexamination Reports, and Redevelopment Plans. The State recently announced grant funding for private developers, employers, and municipalities to develop publicly accessible charging infrastructure. Most recently, Governor Murphy signed into law Senate Bill 3223 on July 9, 2021, entitled "An Act concerning electric vehicles supply equipment and make-ready parking spaces and amending and supplementing P.L. 1975, c.291 (C.40:55D-1 et seq.)." This law amended the MLUL to provide standards for the installation of electric vehicle supply equipment ("EVSE"). The definition of "Inherently beneficial use" was amended to include electric vehicle charging infrastructure. The law also permits EVSE and Make-Ready parking spaces (pre-wired electrical infrastructure at a parking space or set of spaces to facilitate easy and cost-efficient future installation of EVSE) as accessory uses and structures in all zoning districts of a municipality and precludes variances. Applications for the development of EVSE and Make-Ready parking spaces at an existing building, such as a gasoline service station or retail establishment, are not subject to site plan review or other land use board review, provided that the EVSE and/or Make-Ready spaces comply with the bulk requirements.

Additionally, the law requires applications for multi-family developments containing five-or more units to provide 15 percent of the parking spaces as Make-Ready parking spaces and install EVSE in at least one-third of those Make-Ready spaces. The remaining two-thirds of Make-Ready parking spaces are required to have EVSE installed within six years. Applications for development that do not involve multi-family or mixed-use development are required to install Make-Ready spaces at the following rate:

- One Make-Ready space if there are 50 or less off-street parking spaces;
- Two Make-Ready spaces if there are between 51 and 75 off-street parking spaces;
- Three Make-Ready spaces if there are between 76 and 100 off-street parking spaces;
- Four Make-Ready spaces if there are between 101 and 150 off-street parking spaces; and
- At least 4% of parking spaces shall be Make-Ready spaces if there are more than 150 off-street parking spaces.

Other requirements include provisions for accessible Make-Ready spaces, each parking space with EVSE or Make-Ready is counted as two parking spaces, calculations for EVSE and Make-Ready shall be rounded up to the next full parking space, and exempting retail buildings with 25 or less parking spaces as well as single-family dwellings from providing EVSE or Make-Ready spaces.

EV Charging Space at Overpeck County Park. Source: Bergen County

GREEN AND SUSTAINABLE DEVELOPMENT PRACTICES IN BERGEN COUNTY

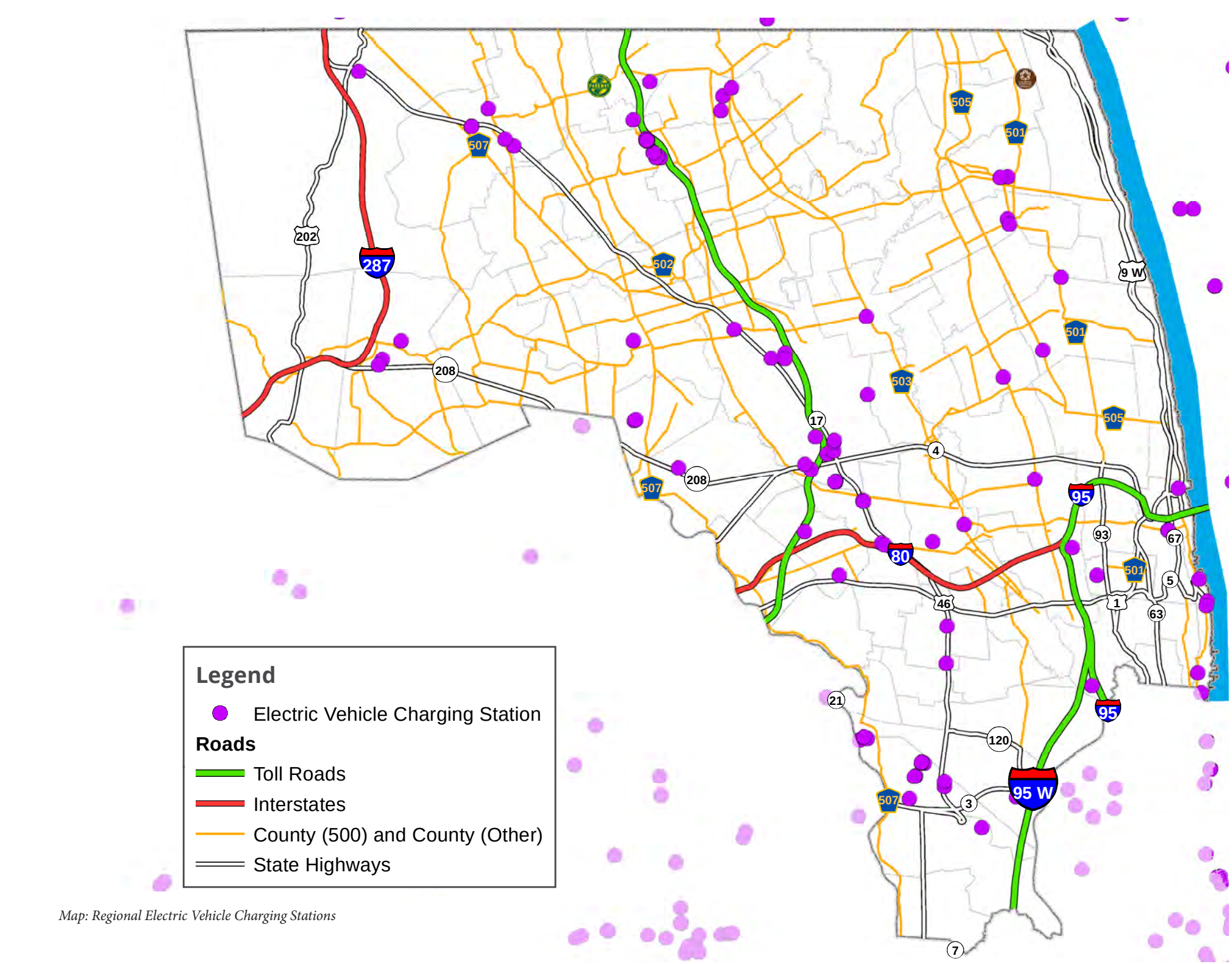
Bergen County has taken steps to promote and advance the use of sustainable and green building practices. As described in the Public Facilities and Services Element, the County of Bergen maintains solar panels on several county facilities, which provide the county with some of its electricity. These panels are located on the parking garage at the County Administration Building in **Hackensack** as well as on the County Prosecutor's Office in **Paramus**, the Bergen County Sheriff Building lot in **Paramus**, and at the Bergen County Law and Public Safety Institute in **Mahwah**.

Bergen Community College, which is funded in part by the county, has undertaken several initiatives over the past few years to implement sustainable practices. The College has made improvements to enhance the efficient use of energy, including modifications to its lighting systems, such as the installation of occupancy sensors and timers, increasing the amount of roof insulation to reduce heat loss, installation of solar film on windows to regulate heat loss and gain, and the installation of high efficiency chillers and HVAC units. In addition, the College's Green Team has sponsored a composting program to reduce the amount of organic waste diverted to landfills, started an organic vegetable garden, and launched a bike share program.

Each year, Bergen County partners with the Hackensack Riverkeeper, an advocacy organization dedicated to the protection of the Hackensack River Watershed, to host the "EarthFest Overpeck" festival. This event celebrates the natural environment through events on the water, including a fishing derby, kayaking and canoeing, and the "Recycled Regatta," a boat race featuring boats constructed from recycled materials. In addition, the festival includes green vendors, presentations, and opportunities for local environmental groups and commissions to interact with residents and visitors.

In 2018, Bergen County updated its subdivision and site plan ordinances through the adoption of "Bergen County Standards for Sustainable Land Development-Subdivisions" and "Bergen County Standards for Sustainable Land Development-Site Plans."[12] These ordinances were adopted in response to emerging trends and changing conditions; continuing to update these ordinances in order to remain current is critical to ensuring that new development follows best practices and minimizes impacts on county infrastructure. The ordinances recommend the use of such green elements as porous pavements, solar panels, vegetated islands and buffers, and low-maintenance street trees, while also providing guidelines for bikeways and dedicated transit lanes. In addition, the new ordinances waive the county's processing fees for buildings or a neighborhood development that earns LEED Certification, with fee waivers of 25 percent for LEED Silver Certification, to 100 percent for LEED Platinum Certification. The NJSEA offers a similar incentive program for developments within its jurisdiction, by providing zoning fee refunds for LEED Development (ranging from 15 percent for the base-level LEED "Certified" to 30 percent for LEED Platinum) and priority review of development applications. NJSEA also incentivizes green building through density bonuses for new construction or building additions, ranging from an additional Floor Area Ratio (FAR) increase of 0.15 or an additional 0.5 dwelling units per acre for LEED Certified, up to an additional FAR increase of 0.3 or 3 dwelling units per acre for LEED Platinum Certification.

On the municipal level, amendments to the Municipal Land Use Law (N.J.A.C. 40:55D-1 et. seq.)(MLUL) in 2017 require municipalities to consider green building and sustainability as part of their Master Plan Land Use Elements. This amendment requires that land use elements include a statement of strategy which addresses several components related to smart growth, sustainability, and storm resilience. As part of the component on smart growth, the MLUL specifies that part of the strategy must consider potential locations for the installation of electric vehicle charging stations. The component on storm resilience must address energy supply, flood-prone areas, and environmental infrastructure. It should be noted that the statement of strategy for environmental sustainability does not include any specific requirements. Additional amendments to the MLUL in 2021 require municipalities to conduct a climate change-related hazard vulnerability assessment as part of the land use element, examining current and future threats to, and vulnerabilities of, the municipality associated with climate change-related natural hazards. The new amendment also requires municipalities to provide strategies and design standards that may be implemented to reduce or avoid risks associated with natural hazards.

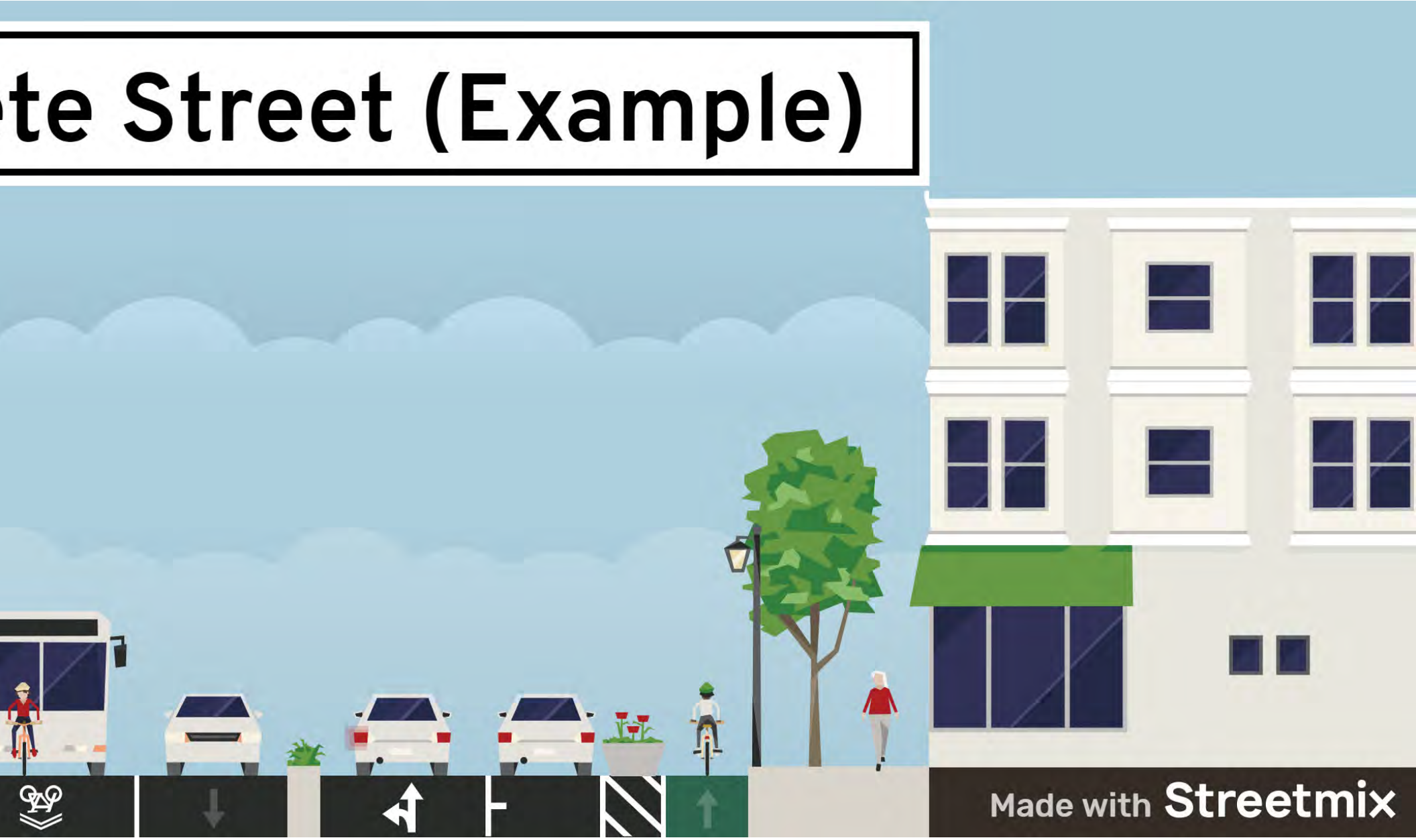


Map: Regional Electric Vehicle Charging Stations

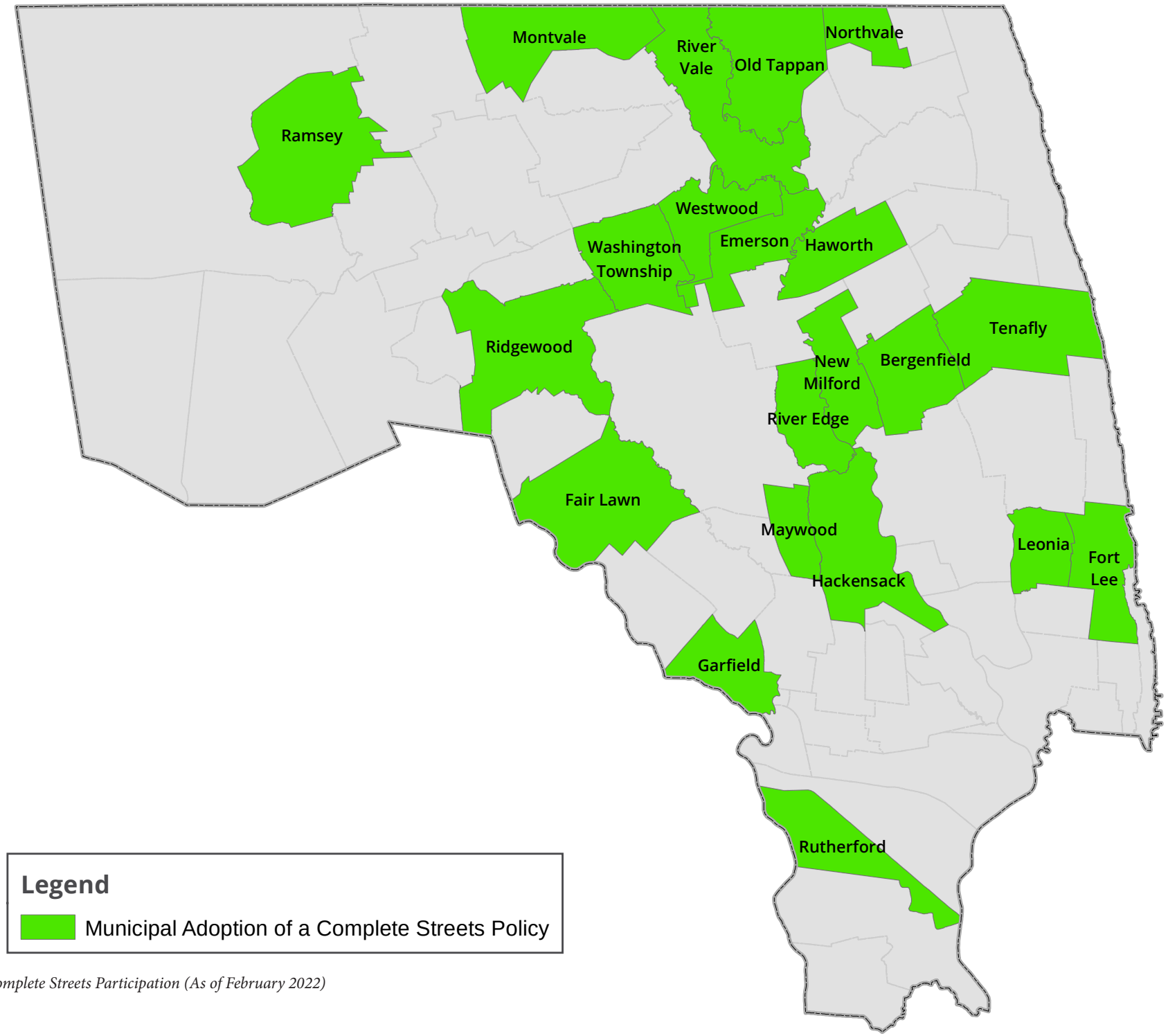
COMPLETE STREETS

As described in the Transportation and Mobility Element, a safe and efficient transportation system is one that meets the mobility and accessibility needs of its users in a safe, timely, and cost-effective manner. Complete streets are systems that ensure that roadways can accommodate users of all ages and abilities by providing multiple modes of travel, including: walking, bicycling, mass transit, and the automobile. The NJDOT adopted the New Jersey Complete Streets Design Guide in 2017.[13] The Guide offers direction in establishing complete streets in a variety of settings and jurisdictions by providing flexible standards to meet the specific needs of any given community in New Jersey. The guide details public right-of-way decisions, including the construction of new streets and improvements to existing streets. The Design Guide was developed to supplement existing standards established federally by the Manual on Uniform Traffic Control (MUTCD), the National Association of City Transportation Officials (NATCO), and the American Association of State Highway and Transportation Officials (AASHTO).

Adoption of a complete streets policy by a state, county, or local government "formalize a community's intent to plan, design, and maintain streets so they are safe for all users of all ages and abilities. Policies direct transportation planners and engineers to consistently design and construct the right-of-way to accommodate all anticipated users, including pedestrians, bicyclists, public transportation users, motorists, and freight vehicles."[14] According to NJDOT, policies are typically are adopted via resolution or ordinance, but must be more than a statement of support, and define how to turn policy into practice.[15] NJDOT notes that the intent of a policy is not to retrofit the entire street network at once, but to implement complete streets as part of routine construction, reconstruction, and repaving projects. Communities that adopt a complete streets policy are expected to consider complete streets as part of future road improvements and development projects. As of February 2022, 172 of New Jersey's 565 municipalities (over 30 percent), and 8 of New Jersey's 21 counties (over 38 percent) have adopted a complete streets policy. Of the county's 70 municipalities, as of February 2022, 21 currently have a municipal complete streets policy: **Bergenfield, Emerson, Fair Lawn, Fort Lee, Garfield, Hackensack, Haworth, Leonia, Maywood, Montvale, New Milford, Northvale, Old Tappan, Ramsey, Ridgewood, River Edge, River Vale, Rutherford, Tenafly, Washington Township,** and **Westwood.**[16] Bergen County is currently considering drafting a complete streets policy which will be applicable to county roads.



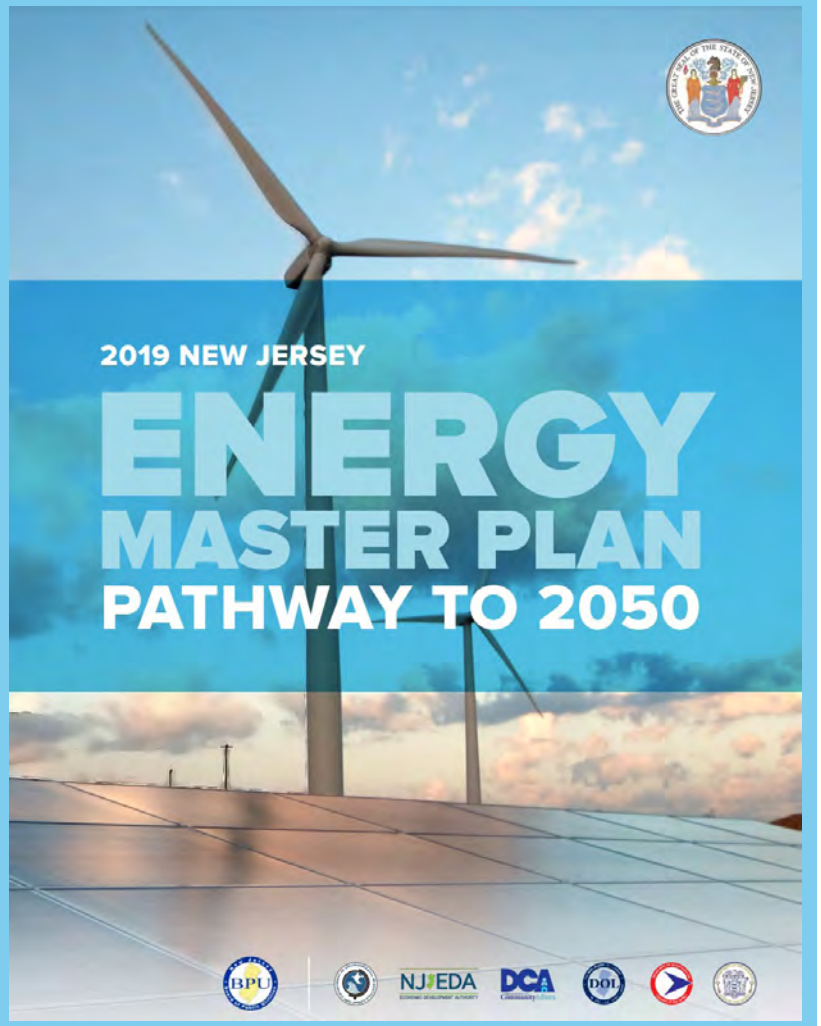
In addition, the county's 2018 site plan and subdivision ordinances have provisions which encourage the use of all modes of transportation, aligning with municipal requirements involving complete streets, including bikeways and dedicated transit lanes. Similar to complete streets, "green streets" provide an additional way to improve and manage stormwater as part of future capital improvements to county roads and drainage systems. While a complete streets program requires municipalities to consider the needs of all users and abilities as part of a roadway improvement or development project, green streets incorporate green infrastructure into roadway design. Recently, neighboring Passaic County adopted guidelines for green streets as part of a 2012 update to their Master Plan Transportation Element, providing guidelines street types.



Map: Municipal Complete Streets Participation (As of February 2022)

2019 NEW JERSEY ENERGY MASTER PLAN

Governor Murphy unveiled the finalized 2019 New Jersey Energy Master Plan (EMP) Pathway To 2050 in January 2020, envisioning initiatives to achieve 50 percent clean energy by 2030 and 100 percent clean energy by 2050. The plan concedes that the State's current trajectory will not allow it to meet these goals, so the Master Plan identifies major contributors to the state's carbon footprint—such as transportation and electric generation—and evaluates carbon neutral solutions. In reducing the dependence on fossil fuels, the EMP outlines seven key strategies guiding New Jersey's path to energy efficiency, each with underlying goals and objectives intended to aid the transition to a clean energy future.



While the strategies, goals, and objectives of the Energy Master Plan are geared primarily toward state agencies and policy, many have the potential for replication on the county and local levels, including, conversion of fleet vehicles to electric, installation of electric vehicle charging infrastructure, increasing transportation options, reducing congestion, encouraging transit oriented development, installation and deployment of alternative energy systems, improving energy efficiency in new and existing construction, transitioning buildings away from oil and gas heat, develop shared bike and scooter programs, reduce port and airport emissions, prioritize clean transportation and power generation options in low-and moderate income and environmental justice communities, and incentivize energy efficient purchasing. The plan notes that several goals may require county assistance, including:

- Goal 1.1.8 (Partner with industry to develop incentives to electrify the medium- and heavy-duty vehicle fleet with battery or fuel cell technology, and to support R&D that will enable such electrification) notes that "Municipal and statewide fleets transitioning to heavy-duty vehicles to electric may require county or shared service investments to facilitate centralized charging or procurement of hydrogen and to make the vehicles more cost effective to local communities."(Page 75)
- Goal 2.2.3 (Develop job training programs to support the offshore wind industry) notes that the state will work with community colleges and County Apprentice Coordinators to help train a workforce to meet the need of this industry.
- Goal 7.2.2 (Establish a Clean Energy Job Training program to assist current New Jersey workers to pivot their skills as necessary to meet changing industry needs) and Goal 7.2.3 (Establish vocational training to establish a pipeline of well-qualified, modern energy specialists) are similar to Goal 2.2.3 above, in that the state will work with its County Apprentice Coordinators to help retrain state residents for new job opportunities.

GREEN TEAMS

On the local level, "green teams" have served to help municipalities incorporate sustainable practices. These teams generally consist of municipal staff, elected officials, and community volunteers. Many of these green teams coordinate their actions with Sustainable Jersey, a nonprofit organization that provides tools, training, and financial incentives to support communities as they pursue sustainable programs and actions designed to improve and promote local sustainability. These actions include physical improvements, plans, studies, and public outreach. For example, actions considering the municipal use of clean energy include the audit and evaluation of existing energy usage as a way to identify and implement projects that will improve efficiency. Public outreach can include actions such as hosting a "green fair" to introduce sustainability to the broader community. Municipalities and schools that choose to participate in the Sustainable Jersey program get priority access to grant funding and training. A green team is the only mandatory requirement for participation in Sustainable Jersey. Similar to other sustainability-related initiatives, Sustainable Jersey has established a certification program that municipalities and schools can utilize to quantify their efforts. Based on the number of creditable sustainable actions taken, municipalities can be recognized by Sustainable Jersey as "Bronze Certified" or "Silver Certified." Municipalities with Silver Certification are also eligible for a "Gold Star" recognition for actions in a specific area of sustainability, which are currently limited to the areas of Energy and Waste. Of the 70 municipalities in Bergen County, 55 communities are participating in the Sustainable Jersey program, with 33 municipalities receiving bronze certification and 8 receiving silver certification.[17] Similar to the CRS program, Sustainable Jersey encourages communities to maintain their sustainability efforts by requiring recertification after several years.

SUSTAINABLE JERSEY AND MUNICIPAL CERTIFICATION

Sustainable Jersey is a nonprofit, nonpartisan organization that provides tools, training and financial incentives to support communities as they pursue sustainability programs. The organization originally began as an informal partnership between The College of New Jersey (TCNJ), a group of mayors at the New Jersey League of Municipalities, the New Jersey Department of Environmental Protection and the New Jersey Board of Public Utilities. After several years of development, Sustainable Jersey was launched in 2009 and is administered by the Sustainability Institute at TCNJ. Sustainable Jersey is funded through philanthropic foundations, corporations, and state government.

Sustainable Jersey manages a sustainability certification program that municipalities can pursue, with two levels of certification, bronze and silver. Certification provides towns with priority access and notification of incentives and grants, as well as access to training, tools, and guidance in developing an effective municipal program. The only mandatory action is the creation of a green team. From there, municipalities can pursue a variety of different priority actions under such categories as climate adaptation, diversity on boards and commissions, energy tracking and management, energy efficiency for municipal facilities, and water conservation, as well as a variety of different actions ranging from emergency management to arts in the community. Bronze certification means a municipality has made a commitment to sustainability and succeeded in implementing the first significant steps, earning a minimum of 150 "points" towards certain actions. Silver certification means a municipality has made significant progress in a number of categories toward sustainability, earning a minimum of 350 points. Sustainable Jersey has recently developed a "Gold Star Standard" that silver-certified communities can pursue for high levels of performance in key dimensions of sustainability, which currently include Energy, Health, and Waste. In 2013, Sustainable Jersey launched "Sustainable Jersey For Schools," which offers a similar certification program for districts and schools.

SOCIAL SUSTAINABILITY: ENVIRONMENTAL JUSTICE AND HEALTHY COMMUNITIES

As described in the introduction, the concept of sustainability seeks to balance the needs of the environment, economy, and society as part of the decision-making process. Social sustainability, as defined by the NJDEP means "preserving and strengthening aspects of society including our communities and schools, the health and education of individual citizens, the vitality of our democratic institutions, the quality and safety of our housing, and the fairness with which our citizens are treated by each other, by private organizations, and by government at all levels."[18] According to the US EPA, environmental justice is a term used to describe the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental, and commercial operations or policies. Meaningful involvement means that people have an opportunity to participate in decisions about activities that may affect their environment and health, public contributions can influence decisions of regulatory agencies, community concerns will be considered in the decision-making process, and decision makers will seek out and facilitate the involvement of those potentially affected. As such, the concept of Environmental Justice features prominently in sustainability, ensuring that everyone is protected from negative environmental impacts and that everyone, including low-income populations, seniors, persons with disabilities, and other vulnerable populations, has access to clean and healthy living conditions.

On April 20, 2018, Governor Phil Murphy signed Executive Order No. 23, which directs NJDEP, with support from other state agencies, to develop guidance on how all state departments can incorporate environmental justice considerations into their actions. In December 2018, NJDEP released a draft guidance document for public comment. The document recommended state agencies utilize tools prepared by the EPA, in conjunction with other available data, to screen whether a community is considered to be burdened by environmental or other stressors. The document also identified specific challenges for environmental justice communities, including excessive and disproportionate exposure to pollution (including air pollution from stationary and mobile sources, lead contamination, contaminated sites, and pesticide exposure), cumulative health impacts from exposure to many pollution sources, underlying social conditions that contribute to cumulative health effects (lack of access to affordable housing, health care, healthy food, safe and clean public transportation, and green areas), and vulnerability to climate change. The document specified that each state department or agency with programming that affects environmental justice communities must develop an Environmental Justice Action Plan. While this executive order is generally targeted mainly toward state operations, it can serve as a model for the county to evaluate its own practices.

This executive order was then followed by the adoption of Senate Bill 232, co-sponsored by Bergen County's State Senator Loretta Weinberg, which Governor Murphy signed into law on September 18, 2020, entitled "An Act concerning the disproportionate environmental and public health impacts of pollution on overburdened communities, and supplementing Title 13 of the Revised Statutes." The new law defined the term "overburdened communities" as any census block group where at least 35 percent of households qualify as low-income households, at least 40 percent of residents identify as minority or as members of a State recognized tribal community, or at least 40 percent of households have limited English proficiency. The law requires the NJDEP to publish a list of overburdened communities, which is to be updated every two years. Additionally, the law sets forth strict requirements for any existing or proposed facility seeking a permit for a regulated activity under a variety of State environmental and waste management laws if the facility is located or to be located in, all or part, of an overburdened community. The term "facility" includes any major source of air pollution, resource recovery facility or incinerator, sludge processing facility, combustor, or incinerator, sewage treatment plant with a capacity of more than 50 million gallons per day ("GPD"), transfer station or other solid waste facility, recycling facility to receive at least 100 tons of material per day, scrap metal facility, landfills, or medical waste incinerator. The new law requires permit applicants for such facilities in overburdened communities to prepare an environmental justice impact statement and transmit such statement to the NJDEP and the host municipality in advance of a public hearing.

SOCIAL SUSTAINABILITY IN BERGEN COUNTY

Bergen County's role in advancing environmental justice and healthy communities has been demonstrated throughout this Master Plan. As discussed in the Public Facilities and Services Element, the Land Use and Housing Element, and the Open Space, Agriculture, Parks and Recreation Element, Bergen County has been engaged in numerous programs to promote healthy lifestyles and living environments for all residents through public health outreach and programming, providing access to housing, and managing a county park system containing over 9,000 acres of open space and recreational amenities.

For projects utilizing federal funding, such as Community Development Block Grants as part of the county's Division of Community Development, or transportation projects for roads and bridges utilizing U.S. Department of Transportation funding, community outreach is a required component, with a particular focus on low-income and minority communities that could be affected by these projects, relative to environmental justice.

Lead contamination has been one issue that has received both national and local attention. Once readily used in fuels, paints, plumbing, cosmetics, chemicals, and electronics, lead is a heavy metal that is highly toxic and can cause severe neurological and kidney damage. Most recently, the health impacts from lead have been tied to outdated water infrastructure, particularly the service lines, fixtures, and interior plumbing of older structures, including houses, apartments, and schools. According to the US EPA, homes built before 1986 are more likely to have lead pipes, fixtures, and solder.[19] In January 2019, Suez Water NJ, one of the largest water purveyors in Bergen County, reported to the NJDEP and its customers in Bergen and Hudson counties that elevated lead levels had been found in 16 of 108 houses tested, indicating that the main source of lead is likely from service lines and fixtures, as no detectable levels of lead have been found in the water leaving the plant. In addition, older houses, particularly those constructed prior to 1978, are likely to contain lead-based paints, which can also create problems when they flake or chip and are either inhaled or ingested. As discussed in the Land Use and Housing Element, the median age of the housing stock is over 60 years. The American Community Survey of the US Census Bureau estimates that over 77.3 percent of houses in Bergen County were constructed prior to 1980,[20] adding to the concern. As referenced in the Public Facilities and Services Element, the County's Department of Health, through its Office of Public Health Nursing, investigates lead contamination cases when children show signs of elevated blood lead levels, conduct site visits to investigate potential sources, and educate parents and caregivers on reduction of lead levels and prevention of future exposure.

In addition to programs conducted by Bergen County, there are different programs managed by the state and by nonprofits to advance social sustainability, with program oversight ranging from local community development organizations to government at the local, state, and federal levels.

The New Jersey Healthy Communities Network (NJHCN), a funding collaborative that includes the Atlantic Health System, the New Jersey Department of Health, New Jersey Health Initiatives, New Jersey Partnership for Healthy Kids, Partners for Health Foundation, and Salem Health & Wellness Foundation, provides grants to organizations that implement strategies to support active living and healthy eating. NJHCN's strategies for active living and healthy eating are shown in the (See Call-out box). NJHCN has funded 66 grantees, including 2 in Bergen County: the Bergen County Technical Schools in Paramus, and the Borough of Ridgefield. In the case of the Bergen County Technical Schools, the school constructed a wheelchair accessible community garden with 7 garden beds that can be used by culinary students to prepare healthy lunch choices. The school has also started hosting yoga classes for faculty and staff as an employee wellness initiative. In **Ridgefield**, the borough has developed the 9/11 Slocum Path Fitness Center, an outdoor exercise space adjacent to the Nature Center and pathway linking the middle school to the town center. Path Fitness Center, an outdoor exercise space adjacent to the Nature Center and pathway linking the middle school to the town center.

In addition to Bergen County's public health and wellness initiatives that are described in the Public Facilities and Services Element, Bergen County has also initiated a wellness program for county employees to promote, encourage, and support healthy lifestyles. The program provides employees access to medical and mobility assessments, personalized wellness coaching sessions, an 8-week customized evidence-based fitness and exercise program, as well as discounted gym membership. The program is currently being tested as a pilot project on a limited scale with the goal of ultimately offering the services to all county employees.

SOCIAL EQUITY

Great communities incorporate equity into all policies thereby creating neighborhoods where all residents, regardless of their circumstances can receive adequate resources and services necessary for success and opportunity. PolicyLink, a research and action institute that advances racial and economic equity, defines equity as "just and fair inclusion into a society in which all can participate, prosper, and reach their full potential. Unlocking the promise of the nation by unleashing the promise in us all."[21]

The American Planning Association's (APA) Planning for Equity Policy Guide identifies three cross-cutting equity initiatives: 1) Gentrification, 2) Environmental Justice, and 3) Community Engagement and Empowerment.[22] Gentrification happens in neighborhoods when development brings new higher income residents, increased property values, and a loss of original residents and community culture. Communities can face threats of gentrification by ensuring economic growth benefits low-income residents, providing opportunities for upward mobility for existing households, and protecting neighborhood culture, history, and character.

The U.S. Environmental Protection Agency defines environmental justice as "fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies."[23] APA's Planning for Equity Policy Guide states the approach to environmental justice as "making investments in places that need them for the benefit of people who need those investments the most."[22]

Community engagement and empowerment is an intentional outreach to marginalized neighborhoods to get their input on plans and to implement more valuable and impactful projects. All residents should be involved in meaningful public participation through events that welcome low-income residents, accommodate special needs, and gather feedback that shapes plans, investments, and developments.

"Equity in All Policies"[22] considers equity in the following factors facing communities:

- Climate Change and Resilience
- Education

- Energy and Resource Consumption
- Health Equity
- Heritage Preservation
- Housing
- Mobility and Transportation
- Public Spaces and Places

These topics and the desired community outcomes should be viewed through an equity lens. For example, communities with great public spaces incorporate equity into design to ensure facilities are inviting and offer valuable programs. These public spaces and places have equitable design features with flexibility for types of uses and events, well-designed edges, accessibility for all ages and abilities, a welcome and safe atmosphere, places to sit and engage, and the inclusion of local cultures and values.

Communities should address social inequities that exist across all programs and evaluate social equity prior to adopting new policies.

NEW JERSEY HEALTHY COMMUNITIES NETWORK (NJHCN) STRATEGIES FOR ACTIVE LIVING AND HEALTHY EATING

Active Living Strategies

- Active Living Strategy #1: Increase / Create Green Space / Parks
- Active Living Strategy #2: Joint / Shared Use Agreements
- Active Living Strategy #3: Streetscape Design for Increased Physical Activity and Community Safety
- Active Living Strategy #4: Connecting Existing Community Resources to Transit and Active Transportation Opportunities
- Active Living Strategy #5: Walking and Biking to School Initiatives
- Active Living Strategy #6: Community Safety as an Avenue for Increased Physical Activity
- Active Living Strategy #7: Unconventional / Non-Traditional Places for Physical Activity
- Active Living Strategy #8: Community Based Social Support for Physical Activity

Healthy Eating Strategies

- Healthy Eating Strategy #1: Community Gardens
- Healthy Eating Strategy #2: Farmers Markets/Stands/Mobile Markets
- Healthy Eating Strategy #3: School Breakfast Programs
- Healthy Eating Strategy #4: School Fruit & Vegetable Gardens
- Healthy Eating Strategy #5: Competitive Pricing for Healthy Foods
- Healthy Eating Strategy #6: Improve Retail Sales Environments in Support of Access to and Purchasing of Healthy Foods
- Healthy Eating Strategy #7: Healthy Vending Strategies
- Healthy Eating Strategy #8: Healthy Menu Initiatives at Restaurants

Healthy Eating, Active Living Strategies

- Healthy Eating, Active Living Strategy #1: Community Assessments for Healthy Eating and Active Living
- Healthy Eating, Active Living Strategy #2: Comprehensive School Wellness Policies with Clear Implementation Plans (Led by School Wellness Committee)
- Healthy Eating, Active Living Strategy #3: Nutrition and Physical Activity Policy, System, Environmental (PSE) Interventions in Schools, Pre-schools, and Child Care Centers
- Healthy Eating, Active Living Strategy #4: Improve Access to Healthy Foods and Opportunities to be Physically Active in Workplaces

THE IMPORTANCE OF HEALTHY COMMUNITIES

Public health is defined by the American Public Health Association as promoting and protecting "the health of people and their communities where they live, learn, work and play."[24] Public health is a key component for thriving, resilient communities but often it is a topic in the background and not in the spotlight. The multi-year COVID-19 pandemic not only brought public health to the forefront, but it also signaled the importance of funding and research and displayed ongoing health disparities and racial inequities that exist with unequal access to resources such as medical care, parks, and broadband.

APHA defines health equity as a "focus on ensuring opportunities for everyone to attain their highest level of health."[25] The APHA further states that to address the social determinants to health and to attain health equity, "Obstacles to health must be removed such as poverty, discrimination, and their consequences, such as powerlessness and lack of access to quality education."[26] Advancing public health requires advancing health equity, mitigating past discriminatory policies, and providing additional resources and support to residents in vulnerable communities.

The public health crisis also increased the awareness of healthy communities. The American Planning Association's (APA) Healthy Communities Policy Guide defines the term healthy communities as "places where all individuals have access to healthy built, social, economic, and natural environments that give them the opportunity to live to their fullest potential regardless of their race, ethnicity, gender, income, age, abilities, or other socially defined circumstances."[27] Healthy communities are successful because they address multiple factors that impact public health, including non-medical issues covering poverty, equity, housing, transportation, education, natural and man-made hazards, and climate change.

The APA Healthy Communities Policy Guide includes three general policies that collectively advance public health by improving the physical, social, and mental health of individuals through the built environment. Neighborhoods are spaces to promote good physical health through active land use patterns, transportation choices, healthy food access, clean air and water, and quiet surroundings. Social spaces are important for public health by providing places for public interactions and social engagement. Communities provide these facilities in many forms that include open spaces, public squares, trails and pedestrian corridors, community buildings, recreation, and farmers markets. In addition to physical and social health factors, neighborhood environments should enhance mental health and well-being of all residents with affordable and safe housing, shaded pedestrian walkways and trails, pocket parks, abundant urban tree canopies, and access to nature.

SUSTAINABLE ECONOMIC DEVELOPMENT

The NJDEP defines economic sustainability as "maintaining and upgrading factors such as the productivity of our workforce, the efficiency with which we use energy and other natural resources, our transportation infrastructure, and our state's well-deserved reputation as one of the country's leading centers of scientific, technological, and business innovation."[28] These principles are referenced throughout this Master Plan, including the Economic Vitality Element, Land Use and Housing, and Transportation and Mobility. The goals of these elements seek to improve living standards and the business environment through the redevelopment and rehabilitation of existing infrastructure, revitalization of historic downtown areas, and improved transportation access for residents, businesses, and visitors.

One approach to measure economic sustainability in a community has come from the national nonprofit, non-partisan organization Strong Towns. Strong Towns advocates for making communities financially strong and resilient, recommending that communities value resilience over efficiency, embracing a process of continuous adaptation, taking small and incremental steps (in contrast to large, costly, and irreversible projects), building based on needs and how places work, and focusing on current finances as opposed to future growth. Strong Towns produced a "Strong Towns Strength Test," a set of 10 non-technical yes or no questions as a way for communities to assess whether they meet these standards. These questions include:

Downtown shopping. Source: Bergen County Division of Economic Development

1. Take a photo of your main street at midday. Does the picture show more people than cars?
2. If there were a revolution in your town, would people instinctively know where to gather to participate?
3. Imagine your favorite street in town didn't exist. Could it be built today if the construction had to follow your local rules?
4. Is an owner of a single family home able to get permission to add a small rental unit onto their property without any real hassle?
5. If your largest employer left town, are you confident the city would survive?
6. Is it safe for children to walk or bike to school and many of their other activities without adult supervision?
7. Are there neighborhoods where three generations of a family could reasonably find a place to live, all within walking distance of each other?
8. If you wanted to eat only locally-produced food for a month, could you?
9. Before building or accepting new infrastructure, does the local government clearly identify how future generations will afford to maintain it?
10. Does the city government spend no more than 10% of its locally-generated revenue on debt service?[29]

SUSTAINABLE ECONOMIC DEVELOPMENT CONT.

In many ways, economic sustainability follows many of the concepts of smart growth. As referenced in the Land Use and Housing Element, smart growth is development that serves the economy, environment, and community equally by concentrating development into already existing communities. Smart growth techniques include mixed-use development and transit-oriented development, which provide the opportunity for a variety of land uses within walking distance of one another, and access to trains, buses, and other forms of public transportation. These approaches borrow from the land development patterns that existed prior to the introduction of the automobile, where daily needs (work, shopping, services, and housing) were located within walking distance, or at least close enough to a train station or other transit hub that could provide access to larger markets. The statewide nonprofit, non-partisan organization New Jersey Future has sought to promote smart growth policies on the state level, conducting research to inform policies and best practices, and providing assistance to communities on the local level to address issues related to equity and resilience. In a 2015 report coauthored by New Jersey Future and the national Smart Growth America, researchers found that as density increases, per-capita road needs decrease, suggesting road-maintenance savings could be realized through smarter growth through more compact development patterns.[30] More compact development reduces infrastructure costs and environmental impacts, reduces the appearance and negative impacts of sprawl, supports the provision of more transit services and reduced reliance upon the automobile, particularly when fewer daily trips require automobile use. Compact development also helps, protects natural lands and open space, increases a sense of place, and typically provides a more diverse housing stock to serve a wider audience; ultimately, striving to reduce the generation of greenhouse gases and improve overall sustainability.

As referenced in the Economic Vitality Element, Amazon's much-publicized announcement in 2017 to construct a second headquarters requested interested communities to submit proposals. This announcement identified certain desirable characteristics of an ideal location: a metropolitan area with more than one million people, a stable and business-friendly environment; urban or suburban locations with the potential to attract and retain strong technical talent; and, communities that think big and creatively when considering locations and real estate options.

In addition, the announcement identified certain tangible items, such as on-site access to mass transit, proximity to major highways and arterial roads, proximity to international airports, creative options to foster connectivity between buildings and facilities (including bike lanes, light rail, bus, and sidewalks), commitments to sustainability, access to recreational opportunities, excellent institutions of higher education, a government structure eager to work with the company, as well as a highly educated labor force.

While these were the stated preferences of one company, these characteristics highlight many foundational principles of location analysis and sound economic development: well-planned development and economic growth are vital to maintaining a diverse and healthy tax base. Having goods, services, and job opportunities available is essential to maintaining and improving Bergen County's living standards.

Hohokus Brook. Source: Colliers Engineering & Design

Solar Canopy. Source: Donna Brennan, Bergen County

GOALS & OBJECTIVES

GOAL 1: Increase Energy Efficiency and Promote Clean Energy Alternatives

What is it?

Energy is required to maintain Bergen County's quality of life and its economy. It is necessary for powering vehicles and appliances, heating and cooling buildings, and the ever-increasing number of "smart" devices which often rely upon a power source and wireless internet. As described in the Public Facilities and Services Element, most Bergen County households heat their homes with natural gas. Motor vehicles are traditionally powered by gasoline or diesel fuels. As of 2018, most of the electricity generated in New Jersey comes from natural gas (51.6 percent), nuclear power (42.5 percent), with the remainder split between renewables (nearly 5 percent) and coal.[31] Unfortunately, the use of non-renewable fossil fuels such as natural gas, gasoline, diesel, and coal contribute to greenhouse gas emissions, which are a global problem with local consequences. The ongoing accumulation of these emissions into the atmosphere will continue to modify the landscape through rising sea levels and exacerbates both routine and extreme weather events. Adopting energy-efficient practices and tools that reduce energy usage will help to curb the amount of greenhouse gases that are generated. These practices can include techniques used to maximize energy efficiency, such as the use of LED lighting and "smart" technology that adjusts lighting and heating/cooling in rooms when they are being utilized, but also alternative energy systems such as solar, wind, and geothermal. Fortunately, there are significant opportunities to improve the way we generate and use energy. By using existing technologies, adopting new policies and taking advantage of market mechanisms that are already known and proven, we can transition to a more sustainable energy infrastructure. This will allow our region to benefit from energy that is cleaner, more affordable, more secure and more reliable, without the emissions that contribute to climate change, harm public health, and degrade the environment.

What will it do?

Adopting energy-efficient practices will reduce reliance on non-renewable fuels (such as gas, oil, and diesel), the financial costs of which continue to fluctuate due to supply, demand, and international affairs.

Why should the county pursue it?

Beyond the global impacts of reducing the amount of greenhouse gases emitted, the county and its residents and businesses will benefit from lower energy costs associated with the operation and maintenance of energy efficient county facilities.

Meadowlands Environment Center. Source: Colliers Engineering & Design.

Objective 1.1: Promote energy efficiency programs, standards, and guidelines in cooperation with local governments

Under the recent amendments to the Municipal Land Use Law, municipalities will need to consider sustainability, storm resilience, and smart growth (including electric vehicle charging stations) when they revise their Land Use Plan Elements. The County of Bergen's experience in adopting sustainable-based incentives could provide municipalities with a helpful starting point from which to develop municipal-specific guidelines.

Objective 1.2: Implement sustainable best practices in new and renovated county facilities

As described in the Public Facilities and Services Element, Bergen County has installed solar panels on several of its facilities. Continue to explore opportunities for use of underutilized or surplus county properties for renewable energy generation, such as solar fields or wind farms. An additional consideration could be to install solar canopies over surface parking areas. The generation of renewable energy could be used as an alternative source of electricity to power county facilities and reduce the amount of energy that needs to be purchased from the grid.

Objective 1.3: Consider energy efficient design in development and retrofit of facilities

Elected officials and the public are often concerned with the high costs of living which, at the local level in New Jersey, is particularly associated with property taxes. Seeking ways to identify small improvements to county operations and facilities may help to manage some of these costs. According to Sustainable Jersey, local governments spend about 10 percent of their budgets on energy.[32] While up-front costs associated with alternative energy systems, sources, and energy-efficient design and equipment are often higher than conventional development, the long-term costs are often mitigated through reduced energy demand. The systems in New Jersey commonly associated with alternative energy are wind and solar power. In addition, heat pumps (a type of geothermal power) are also recognized by the New Jersey Clean Energy Program as a way to minimize outside energy use. While geothermal is often associated with power systems in places like Iceland where proximity to volcanic activity is used to generate electricity, geothermal heat pumps use the moderated temperature of the earth to manage the indoor temperature of a building, therefore requiring less energy to heat and cool.

In 2013, Passaic County adopted a sustainability element of their master plan. Entitled *Passaic County Future,* the plan recommended the county develop a balanced energy portfolio with diverse energy sources to provide an affordable and secure energy supply, while also reducing and optimizing energy use in county facilities, operations, parks, and vehicles. The plan also recommended facilitating improvements to public transportation and bicycle/pedestrian infrastructure to provide viable alternatives to the automobile, and sought to promote energy efficiency incentives from the federal, state, and regional level for residents.

In addition, incentive programs from the state and federal governments can help reduce the sticker shock associated with the up-front costs of equipment and installation. Identify strategic capital investment opportunities that help reduce the long-term operating costs, such as considering efficiency measures for construction of new county-owned facilities, retrofits of existing facilities, and improvements made during regular maintenance activities (such as replacing lights, appliances, and windows when needed). Studying the energy use and demand of county-owned buildings and vehicles, known as an "energy audit," can identify specific strategies, unique to each facility, that can provide the county with the greatest return on investment. It should be noted that as of 2022, the New Jersey Clean Energy Program provides 100 percent reimbursement for energy audits of public facilities.

EV Charging Space at Overpeck County Park. Source: Colliers Engineering & Design

Objective 1.4: Consider energy efficiency initiatives as part of disaster resilience planning

Hurricane Sandy served as a visible stress test for many when it comes to energy use. Many homes and businesses were without power for days, if not weeks or even months. Gasoline shortages in the days that followed the storm further exacerbated the problem, both for fueling vehicles and backup generators. Considering energy efficient practices can help to reduce these impacts and improve resilience. As described in the previous section, resilience is the ability to return to normal function. For example, buildings needing to run under backup generator power with energy efficient fixtures and appliances can run much closer to normal than one with high energy demands where power is only reserved for essential needs. Fuel shortages will have less of a noticeable effect for vehicles with better gas mileage. Energy efficiency initiatives undertaken by the county for its vehicle fleet and facilities can provide the public with the benefit of a continuity of services when there are stresses on the system while also helping to reduce long-term operating costs, particularly during periods of high fuel prices.

BCUA Environmental Awareness Workshop. Source: Donna Brennan, Bergen County

GOALS & OBJECTIVES

GOAL 2: Mainstream Sustainable Best Practices

What is it?

Sustainable best practices include those related to land use and development, but also daily operations of residents, businesses, visitors, and government, that collectively impact the environment. Sustainable land use and development design techniques, including smart growth, provide the opportunity for a variety of land uses to be located within walking distance of one another, and with access to public transportation. More compact development reduces costs and environmental impacts, reduces the appearance of sprawl, supports the provision of more transit services and reduced reliance upon the automobile, protects natural lands and open space, increases a sense of place, and typically provides a wider range of housing to serve wider audience. Green building and sustainable development seek to integrate ecologically-sustainable practices throughout the development process through building materials, energy and water usage, but can also apply to neighborhood development through the creation of strong public transit, electric vehicle, bike, and pedestrian-friendly infrastructure.

What will it do?

Sustainable best practices ensure that communities can cater to both people and their environment. Promoting green building and sustainable design will provide municipalities with convenient access to information and resources on how to implement ordinances that improve sustainability.

Why should the county pursue it?

Mainstreaming sustainable best practices can help reduce waste and greenhouse gas emissions, conserve natural resources, and create an overall healthier environment for residents, employees, and visitors of the county. Smart growth increases the accessibility of retail shopping and services, restaurants, and office space to residents of all income groups and ages. Compact development reduces the need for and reliance upon automobile use, which provides numerous benefits, including: reduced automobile use frees up roadway capacity; walking between destinations promotes an active lifestyle; and, older adults can more safely “age in place” if they feel they can access their services and maintain their lifestyle without a car. Smart growth and sustainable development also ensure that the county continues to thrive economically without sacrificing scarce vacant land or encroaching on open space or other protected areas for development.

Objective 2.1: Continue to promote sustainable neighborhood design techniques and green building best practices through the county land use development review process

Bergen County amended its site plan and subdivision ordinances in 2018 to include more provisions and incentives for the use of green infrastructure and green building. Continue to promote the incorporation of green roofs, permeable pavements, reflective materials, shading, and other best practices for reducing impervious surfaces, heat island impacts and stormwater runoff produced by new development. Consider ways to allow for innovation in best management practices in private development projects.

Objective 2.2: Reduce impermeable surfaces, heat island impacts, and stormwater runoff

As described in the Environment and Natural Resources Element, stormwater and stormwater-related pollution create problems both locally and regionally, from nuisance flooding during rain events to pollution that results in swimming or fishing bans. Managing the quantity while protecting the quality of stormwater can be addressed through different approaches, including the use of green infrastructure. In contrast to most "gray" stormwater infrastructure, green infrastructure is publicly visible and can provide secondary benefits when it is used as part of a public beautification project or designed into a park. The addition of planted materials sequesters more carbon dioxide, a greenhouse gas, from the atmosphere.

Similar to the actions in the previous goal tied to energy improvements, effectively managing stormwater requires an understanding of where stormwater is generated, and where it ends up going. The state routinely produces information related to impervious coverage. This data could be used in conjunction with other studies and information to assess and quantify impervious surfaces. The stormwater associated with these surfaces can then be used to evaluate approaches to reduce impervious coverage as part of future capital improvements to roads, drainage facilities, and county buildings.

As discussed in the Environment and Natural Resources Element, New Jersey is currently updating its rules for regulating stormwater to encourage the use of green infrastructure. In addition, Governor Murphy signed the Clean Stormwater and Flood Reduction Act (S1073/A2694) into law in March 2019, which provides municipalities and counties the option to establish stormwater utilities. Stormwater utilities are a tool used in communities throughout the country to fund maintenance, construction, and operation of stormwater management systems through the assessment of fees on certain impervious surfaces that contribute into the stormwater system, Philadelphia is one notable example where a stormwater utility has been adopted. For example, in the case of a large, underutilized surface parking lot that generates a significant quantity of stormwater, a stormwater fee incentivizes property owners to reconsider its use, by either reestablishing portions of it as vegetated, or through infill development. While this type of program would particularly help Bergen County's municipalities with combined sewer systems (**Fort Lee, Hackensack,** and **Ridgefield Park**) reduce the amount of sewer discharges, it would also benefit communities with separated systems improve stormwater management.

Aiding communities interested in this program may help to encourage adoption, including technical assistance, model ordinances, and demonstrating how stormwater management can complement land preservation programs.

Objective 2.3: Evaluate environmental justice issues as part of development, redevelopment, and open space acquisitions

The Environmental Protection Agency defines environmental justice as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations and policies. Environmental justice is increasingly a consideration as part of development projects and open space acquisitions to ensure that these actions equitably serve its residents. This includes ensuring that open space acquisitions include not only traditional large swaths of natural lands, but urban parks that provide recreational opportunities, and ecosystem services (stormwater management, air quality mitigation, and reduced heat island effects) that can benefit local communities. Promoting smart growth development encourages active lifestyles, reduces car usage, and can improve localized air quality issues. Encourage the consideration and attention to mitigating lead risks in older structures as part of redevelopment and rehabilitation projects.

Objective 2.4: Increase educational opportunities for individuals, public agencies, and private businesses to learn about the benefits of creating sustainable communities

Facilitate the education of municipal officials, planning board members, and zoning board members on the benefits of sustainable neighborhood development. Sustainable neighborhood development should promote the efficient use of land through reasonable residential density, and it should provide a mix of residential and nonresidential uses within walking distance of transit service to promote reverse commuting and live-work environments. Consider the creation of a smart growth "Best Practices Manual" that provides instructions for implementation and describes relevant issues to consider. Such a manual could include model ordinances standards for location and design of bus stops (including Bus Rapid Transit adaptable bus stops), bike lanes, pedestrian walkways, siting of electric vehicle charging stations, and other green neighborhood design standards. Provide technical assistance to municipalities who seek to link incentives such as density bonuses, floor area ratio (FAR) bonuses, and property tax incentives (in redevelopment or rehabilitation areas) to smart growth and sustainable development best practices.

Objective 2.5: Consider adoption of a complete streets policy

As described in the Transportation and Mobility Element, Bergen County is currently investigating a complete streets policy, and 21 of the county's 70 municipalities have adopted their own policies as of February 2022. While most roads in Bergen County are used primarily for vehicular travel, people can and do walk, bike, and ride transit along these corridors. Safe access and mobility for them means having the ability to use county roads without dangerous conflicts with vehicles and being able to easily and safely transfer between different modes of transportation. Complete streets ensure that the road network is part of a bigger transportation system for use by both motorists and non-motorized users. It can result in more efficient use of county roads, moving people on foot, bicycle, or mass transit, in addition to the automobile. Considering the limited availability of vacant and developable land to increase roadway width as a way of addressing vehicle capacity, it is important to maximize the capacity within the existing road right-of-way. Adoption of complete streets policies could help ensure that all users of the road are considered as part of future roadway projects.

Objective 2.6: Consider a green purchasing policy

Actions that help to reduce waste and minimize negative environmental and social harm help to form the basis of a green purchasing policy. While recycling has helped to reduce the amount of waste sent to landfills, recycling is not always a perfect solution considering the energy required to transport and process recycled goods. Waste generation from office activities can be minimized by providing attractive alternatives. For example, paper usage can be reduced through electronic delivery, filing, and storage of forms. The county recently began an initiative to reduce paper usage by transferring all county resolution and ordinance documentation, used during public meetings, to a digital format, where elected officials and county administration could access via handheld tablets. While a "paperless" operation may not be entirely possible, reductions in paper use, or the purchase of recycled paper, can help to curb waste while also reducing the amount of physical space required for storage. Other items that could be considered include encouraging the use of reusable water containers by retrofitting water fountains to accommodate bottle filling, and purchasing green cleaning products that minimize exposure to potentially harmful chemicals.

Objective 2.7: Promote the County's recycling and sustainability program as a model for local communities

The county recently established the Recycling and Sustainability Division as an internal means of reducing and recycling waste and promoting sustainable practices throughout Bergen County's facilities. The Division promotes and educates County employees, agencies, and the greater community on best practices and lifestyle changes that can improve the environment through the use of environmental purchasing, demonstration projects, and educational initiatives. Continuing these initiatives and showcasing them more generally can serve a model for municipalities and neighboring counties, in which towns may look to the division for high-quality programs and initiatives to reduce waste.

EV Charging Space at Overpeck County Park. Source: Colliers Engineering & Design

Hackensack River Pathway. Source: Bergen County Division of Planning

GOALS & OBJECTIVES

GOAL 3: Improve Community Resilience

What is it?

Resilience is the ability to withstand and quickly recover from unexpected challenges. As described in this element, resilience to flooding and extreme weather events means the ability of a community to safely manage weather events, from protecting people and property from the impacts of these events, to allowing them to quickly return to daily life with as minimal interruption as possible.

What will it do?

Improve quality of life by ensuring that residents, businesses, and government can better cope with flooding and extreme weather events.

Why should the county pursue it?

As described in the Environment and Natural Resources Element, forecasting models indicate that the severity of storms will continue to increase. Damages from these storms will be further intensified when combined with rising sea levels and increased impervious coverage, while regular rain events and high tides in low-lying areas may lead to flooding in areas where previously not encountered. Aging water, stormwater, and wastewater infrastructure can also exacerbate these problems. For Bergen County to remain an attractive place to work, live, play, and invest in, it is important to understand, prepare, and respond to these risks.

Objective 3.1: Develop and promote resilience programs, standards, and guidelines in cooperation with local governments and businesses

As described in the previous section and the Environment and Natural Resources Element, climate change will continue to create new challenges in Bergen County. Identifying the areas and populations where the impacts will be most severe is necessary to identify long-term solutions to improve resilience. Bergen County last updated its Multi-Jurisdictional All-Hazards Mitigation Plan in 2020. The natural hazards identified by the 2020 All-Hazards Mitigation Plan include coastal erosion and sea level rise, dam and levee failure, drought, earthquake, flood (including riverine, coastal, storm surge, tsunami, and stormwater flooding caused by local drainage and high groundwater levels), geological hazards (landslide and subsidence/sinkholes), hurricane and tropical storms, nor'easters, severe weather (high winds, tornadoes, thunderstorms, hail, and extreme temperature), winter storms (snow, blizzards, and ice storms), and wildfire. Preparation of the plan involved coordination with all 70 municipalities, the New Jersey Sports and Exposition Authority, the New Jersey Highlands Council, as well as major utilities and other stakeholders.

Objective 3.2: Encourage municipal participation in the Community Rating System (CRS) program

Bergen County currently has 9 communities participating individually in the CRS program, as of October 2021. In addition, the NJSEA participates on behalf of the 14 communities in the Meadowlands District. Work with municipalities by providing professional and technical assistance for towns interested in participation or advancement in NFIP's CRS program. This can range from providing towns with baseline data, information, mapping support, and model ordinances, hosting educational events that can be used toward CRS credit, to supporting land preservation projects that target lands in flood hazard areas. Examine successful examples of regional coordination and resource sharing to encourage CRS participation, such as Monmouth County's CRS Assistance Program and CRS Users Group. In the case of Monmouth County, their CRS Assistance Program provides municipalities with technical assistance to satisfy specific CRS-creditable activities, while the CRS Users Group provides a quarterly forum for municipalities to share ideas as they take actions to protect their communities from future floods.

Saddle River County Park. Source: Colliers Engineering & Design.

Objective 3.3: Conserve natural resources and environmentally-sensitive areas

As described in the Environment and Natural Resources Element and the Open Space, Agriculture, Parks and Recreation Element, protection of natural resources helps protect water quality, reduces flooding and stormwater, and improves air quality.

Objective 3.4: Consider resilience as part of planning and capital improvements

Limiting the development of critical facilities, residences, and businesses in vulnerable waterfront areas can help reduce damages and limit the loss of life, but this does not mean that communities need to abandon the waterfront. Preservation of land in floodplains is one of many different approaches to improve resilience. Formalize and implement best practices for protecting systems and networks. Understanding where and how areas are expected to be impacted by rising sea levels and storm surge will be critical to the effective development and maintenance of public infrastructure to avoid costly emergency maintenance and repairs. Where relocating certain infrastructure may not be feasible, retrofits, new construction, and maintenance should incorporate practices that ensure that they can withstand severe weather and flooding. Identify where backup facilities and redundancies may be needed for critical systems, including water, sewer, electric, and telecommunications to ensure continuity of services and effective emergency response.

The CRS program recognizes efforts by communities to mitigate flood impacts through maintenance of drainage systems, including debris removal, special attention to known problem flooding sites, incorporating drainage corrections into a capital improvement program, prohibitions on dumping in streams, and annual inspections and maintenance of public and private storage basins.

Providing technical assistance to municipalities may also help to address improvements to resiliency throughout the county. As noted earlier, amendments to the MLUL in 2021 now require municipalities to conduct a climate change-related hazard vulnerability assessment as part of the land use element, which involves an examination of the location of critical infrastructure.

Groundbreaking Ceremony for New Amphitheater and Comfort Station in Riverside County Park in North Arlington
Source: Bergen County

Objective 3.5: Continue to promote the county's floodplain buyout program

As described in the Environment and Natural Resource Element, both New Jersey and Bergen County have modified their open space preservation programs to include the acquisition of floodprone properties. Following Hurricane Sandy, New Jersey's Green Acres Program was expanded to include a "Blue Acres" component, which funded the purchase of residential properties in floodprone areas in order to demolish the structures and return them to a natural state. This approach not only reduces the number of buildings, people, and businesses in areas at risk of flooding, but the increased natural pervious soils also help mitigate flood impacts to surrounding and downstream areas when future floods occur. In addition, these properties can then be used toward additional credit for communities participating in the CRS program.

Objective 3.6: Assess the secondary impacts of flooding

One of the goals of the 2020 Bergen County All-Hazards Mitigation Plan is to "Preserve the natural environment and promote human health," with the first objective being to "Analyze the secondary effects of potential disasters on human and environmental health, such as mold growth, hazardous material spills, chemical releases by fire/flood/ice, materials used for cleanup and recovery, etc., and develop projects to mitigate potential impacts." While flood damage can leave visible damage to structures, it can also create less visible but still dangerous problems when floodwaters collect and deposit chemicals and untreated sewage into homes and structures. Moisture that is not treated following floods, such as when hidden behind walls or under floors, can lead to the growth of harmful mold and bacteria.

Van Saun Senior Picnic. Source: Donna Brennan, Bergen County

GOALS & OBJECTIVES

GOAL 4: Promote Public Health and Wellness

What is it?

This goal seeks to improve and enhance the health and wellness of its residents by ensuring that county policies, programs, and plans consider impacts, both positive and negative, to public health.

What will it do?

Through its different departments and agencies, Bergen County has advanced programs that encourage active lifestyles and promote access to nutrition. These programs and policies not only help to improve quality of life for all residents, they also help to reduce the long-term costs associated with managing chronic diseases such as diabetes and heart disease, the monetary costs of which affect the residents themselves, but also businesses and taxpayers.

Why should the county pursue it?

While many data indicators show that Bergen County residents enjoy some of the highest standards of living in the country with a high median income and a highly-educated labor force, much less apparent are the challenges that confront low-income families and individuals, children and families at risk, people with disabilities, and adults over 60.

Objective 4.1: Provide access to exercise and recreation opportunities

As described in the Open Space, Agriculture, Parks and Recreation Element, Bergen County manages a park system of over 9,000 acres, roughly half of the preserved open space in Bergen County. The other half of preserved lands and parks are owned and managed by municipalities, nonprofits, the State of New Jersey, and the Palisades Interstate Park System. One of the goals described in the Public Facilities and Services Element is promoting and sustaining healthy lifestyle choices as a way to reduce the long-term costs associated with managing chronic diseases, such as diabetes and heart disease, which are some of the leading causes of death in Bergen County according to the 2016 Community Health Needs Assessment for Bergen County.[33] Access to parks provide residents and visitors with scenic and recreational amenities in addition to the ecosystem services provided by natural lands. Just as important as the parks themselves are the bicycle and pedestrian connections between parks and other destinations which provide people with the ability to enjoy parks without having to drive, and expand their open space and recreation opportunities by allowing them to enjoy two or more facilities without the additional roadway traffic and parking demands. For those who enjoy walking, running, biking, or stationary exercise (such as yoga or Tai Chi), a network of trails, bikeways, pathways, and fitness circuits can provide both optimal recreation and transportation opportunities. Incrementally establishing new and linking existing trails, bikeways, and pathways, both as part of park improvements and through new development, could form a comprehensive network of non-motorized transportation corridors throughout the county. These pathways should not just be limited to inter-park connections, but multipurpose networks that provide safe and convenient access to residential neighborhoods, parks, schools, workplaces, shopping, major open spaces, and other destinations.

Easton Tower. Source: Bergen County Division of Cultural and Historic Affairs

Objective 4.2: Consider public health as part of future plans and policies

According to the Centers for Disease Control and Prevention, Health Impact Assessment (HIA) is a tool that can help communities improve public health through community design.[34] HIAs can be utilized for plans and policies to evaluate their potential health impacts.

Objective 4.3: Maintain public health education programming

As described in the Public Facilities and Services Element, Bergen County's Department of Health Services and Department of Human Services provide a wide range of programs and services for residents to improve and maintain healthy lifestyles.

Objective 4.4: Improve access to fresh and healthy food

Locations where access to fresh foods is limited are often referred to as "food deserts." Currently, it is estimated that only one food desert exists within the county, and that is limited to a small subsection of **Fairview**; however this is not to say that future food deserts could not appear. A grocery store that relocates to another area has the ability to quickly and disproportionately impact those in the community without access to a personal vehicle or where transit services are limited.

Ensuring that communities and their residents can remain resilient to these potential disruptions is essential to this objective and involves coordination with municipalities, nonprofits, businesses, community groups, the state of New Jersey and other partners. This can include getting more healthy food options to those in need through programming (such as community gardens and farmers markets), transportation services, and connecting vegetable, fruit, protein donations and pantries. It can also include potential redevelopment plans, or small grant or educational programs with neighborhood retailers to provide fresh and healthy food options.

Solar Canopy. Source: Donna Brennan, Bergen County

Objective 4.5: Promote environmental justice

Consider adopting the approach used by the State of New Jersey to incorporate environmental justice considerations in implementing statutory and regulatory responsibilities through the preparation of an Environmental Justice Action Plan. This would include developing a plan for educating and training department or agency staff about environmental justice and their role in advancing environmental justice roles, identifying existing programs that have a significant impact on environmental justice communities, describing the methods and procedures currently used to provide information about programs to environmental justice communities to solicit community feedback, identifying opportunities to improve engagement and collaboration with environmental justice communities, identifying opportunities for inter-department/agency collaboration to improve the consistency and effectiveness of communications with environmental justice communities, and leveraging program and funding opportunities to maximize benefits for environmental justice communities. Consideration could also be given to the establishment of an environmental justice working group for all county departments/agencies to facilitate collaboration with environmental justice communities.

GOALS & OBJECTIVES

GOAL 5: Embrace Sustainable Economic Development

What is it?

As described in the previous section, the NJDEP defines economic sustainability as "maintaining and upgrading factors such as the productivity of our work force, the efficiency with which we use energy and other natural resources, our transportation infrastructure, and our state's well-deserved reputation as one of the country's leading centers of scientific, technological, and business innovation."[35] These principles are referenced throughout this Master Plan, including the Economic Vitality Element, Land Use and Housing Element, and the Transportation and Mobility Element. The goals of these elements seek to improve living standards and the business environment through the redevelopment and rehabilitation of existing infrastructure, revitalization of historic downtown areas, and improved transportation access for residents, businesses, and visitors.

What will it do?

This goal will help ensure that Bergen County remains economically competitive, while maintaining and improving its living standards.

Why should the county pursue it?

Economic growth is critical to the strength of and quality of life in Bergen County. Sustainable economic development concentrates development where it currently exists while protecting and enhancing natural lands which themselves provide economic benefits through ecosystem services (including the sequestration of greenhouse gases, stormwater management, and water quality protection), and ecotourism.

Van Saun County Park. Source: Bergen County Division of Cultural and Historic Affairs

Objective 5.1: Pursue development strategies that are attractive to businesses, residents and visitors

As described in the Land Use and Housing Element, development trends in Bergen County have shown a notable shift from single-family to multi-unit housing over the last decade. Corporate offices and retail centers have started considering downtown settings, in contrast to earlier preferences for suburban office and retail parks. Commute to work data described in both the Transportation and Mobility Element and the Land Use and Housing Element have also shown a decline in the number of people driving to work since 2000, while the proportion of people utilizing public transportation or working from home has increased. Reliable and modern communication, energy, transportation, water and wastewater infrastructure are critical for business. As described in the Economic Vitality Element, Amazon's much-publicized 2017 announcement that sought proposals from interested communities for a second corporate headquarters identified certain desirable characteristics of an ideal location: a metropolitan area with more than one million people, a stable and business-friendly environment; urban or suburban locations with the potential to attract and retain strong technical talent; and, communities that think big and creatively when considering locations and real estate options. In addition, the announcement identified certain tangible items, such as on-site access to mass transit, proximity to major highways and arterial roads, proximity to international airports, creative options to foster connectivity between buildings and facilities (including bike lanes, light rail, bus, and sidewalks), commitments to sustainability, access to recreational opportunities, excellent institutions of higher education, a government structure eager to work with the company, as well as a highly educated labor force. Of course, these were the stated preferences of one company, and there has also been much attention given to the amount of financial incentives that the selected communities have provided, however, these characteristics highlight many foundational principles of sound economic development: well-planned development, access to amenities, and economic growth are vital to maintaining a diverse and healthy tax base while also providing the added benefit of attracting visitors and a talented workforce.

Objective 5.2: Promote Bergen County's natural amenities

As described in the Open Space, Agriculture, Parks and Recreation Element, natural lands and water systems—be they in rural, suburban, or urban settings—provide numerous benefits to the community. The financial and quality of life benefits are broad: green infrastructure may prevent tax increases otherwise necessary to support the extension of services and traditional infrastructure into undeveloped areas; electrical costs and grid demand may decline from an improved microclimate where trees and other plantings help lower temperatures; and, trees provide a natural air filter which can lower healthcare costs and serve as an environmental justice remedy for those prone to asthma and other heat- and air quality-triggered illnesses. In addition, street trees add an estimated 10 percent to property values.[36] Preservation of land provides wildlife habitat and recreation space, and protects water quality. These systems also provide recreational benefits to residents and visitors, furthering the county's goals to foster active and healthy lifestyles. Organizations like the nonprofit Hackensack Riverkeeper promote the Hackensack River Watershed through river-based recreation activities, including canoeing and kayaking, nature walks, bird watching, and eco-cruises. These activities are designed to draw attention to the natural and recreational assets that can be found in even urbanized settings to help foster an appreciation and interest in the welfare, stewardship and protection of these areas.

Objective 5.3: Promote Bergen County's cultural and historic amenities

Bergen County's arts, culture, and historic resources play an important role in enhancing the quality of life for residents, and can serve as an important attraction to help stimulate local economies and downtowns. The central goals of the Arts, History, and Historic Preservation Element seek to strengthen and promote these resources for the benefit of residents, visitors, businesses and investors.

Planter in Tenafly. Source: Colliers Engineering & Design

Objective 5.4: Support resilient and green infrastructure that responds to the needs of residents, businesses, and visitors

The non-profit smart growth advocacy organization New Jersey Future has advocated for improving the state's aging water infrastructure. In a 2014 report, *Ripple Effects: The State of Water Infrastructure in New Jersey Cities and Why it Matters*, they conclude that failure to invest in urban water infrastructure will impede economic growth, particularly in its cities where market forces are driving investment.[37] As described in the Environment and Natural Resources Element, several Bergen County municipalities have combined sewer and stormwater systems, including **Fort Lee, Hackensack,** and **Ridgefield Park**, which will require upgrades and improvements as part of the long-term control plan permitting process to reduce incidences of overflow events during heavy rains. Some of these improvements will likely include infrastructure that reduces the quantity of stormwater that reaches the combined system, or at least delays it from reaching the system during peak periods, such as through the use of green infrastructure. These techniques are not limited to communities with combined sewer and stormwater systems, however, and can help reduce the demands on stormwater systems throughout Bergen County, while providing the added benefit of creating new parks and green spaces.

Objective 5.5: Consider aligning future growth and economic development with state planning initiatives

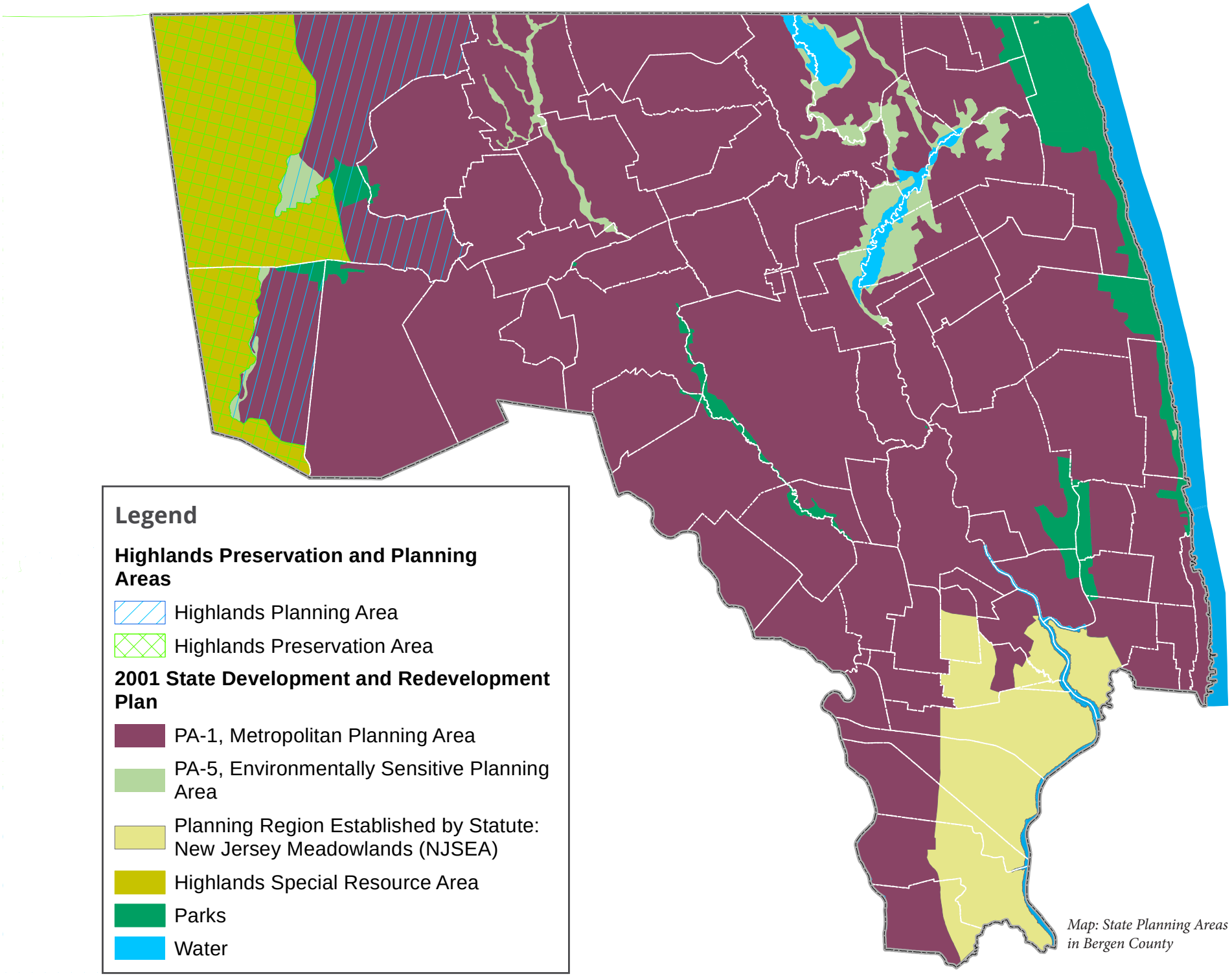
The State of New Jersey adopted the State Development and Redevelopment Plan (SDRP or "State Plan") in 2001. As described in the introduction to the Master Plan, the State Plan intended to serve as a guide for public and private sector investment in New Jersey's future. The State Plan divides the state into several Planning Areas (1 through 5), each representing an increasingly intense level of development (with 1 being the highest) and with recommendations and expectations to match those conditions in terms of both existing and desired future development patterns. Additionally, Urban and Regional Centers, Towns, Villages, and Hamlets are identified as places recommended for concentrated development.

While development patterns vary across Bergen County's 70 municipalities, the overall concentration of development means that over 75 percent of the County is designated as a Planning Area 1 (PA 1) – Metropolitan Planning Area. PA 1 refers to communities that are fully developed, or almost fully developed, with little vacant land available for new development. The PA 1 constitutes two-thirds of New Jersey's population and jobs, and will continue to accommodate growth. The State Plan recommends focusing growth in these already developed places, particularly in the PA-1 area. Under 3 percent of the County is located in the PA 5—Environmentally Sensitive—planning area. The areas designated PA-5 are generally located in the northern sections of the county, paralleling the waterways that provide drinking water to the region. PA 5 refers to areas with large contiguous valuable ecosystems, geological features and wildlife habitats. The State Plan identifies just over 4 percent of the County as state, local and federal parks. Jurisdiction for the remainder of Bergen County's land area is split between the New Jersey Highlands (Preservation Area), and the New Jersey Sports and Exposition Authority's Meadowlands District. As mentioned in the Land Use and Housing Element, development in areas with existing supportive infrastructure, particularly the PA-1 area, is a concept of smart growth: directing growth to developed areas helps to then protect natural lands and the ecosystem services that they provide to the benefit of residents, businesses and visitors. Limiting sprawl development and encouraging smart growth principles supports many of the sustainable practices identified in this element.

Despite a requirement by the State Planning Act (N.J.S.A. 52:18A-196 et. seq.) to update the plan every three years, a revised State Plan has not been adopted in over 20 years. In 2011-2012, the State Planning Commission prepared a draft State Strategic Plan that would replace the 2001 State Plan (SDRP).

The State Planning Commission approved the draft Final State Plan in 2011 (Resolution No. 2011-08) to begin the process of Final State Plan approval, which included public hearings in February, March, and September of 2012, with adoption scheduled for that November. Unfortunately, following the arrival of Hurricane Sandy in late October, the State Planning Commission voted to table adoption, citing the need to provide time for public review and comment, as well as to consider issues related to coastal recovery.[38] As of February 2022, the State Planning Commission has yet to reintroduce the State Strategic Plan for adoption. The draft State Strategic Plan differed from the 2001 plan in that it utilizes a criteria-based identification system for growth, limited growth, and preservation, rather than a State Plan Policy Map that governed the locations of different types of development. State investment and incentives to support development and redevelopment would be directed toward areas identified for growth, while investments and incentives for land preservation, agriculture development and retention, historic preservation, environmental protection and stewardship would be directed toward areas preferred for preservation and protection.

Despite the delay on the state level, Somerset County proceeded with a process to align its own future growth and economic development efforts with the draft Strategic Plan. With a resolution of support from the State Planning Commission, in 2014 its "Somerset County Investment Framework" was adopted as an element of its Master Plan, utilizing the State Strategic Plan's criteria-based approach to identify investment areas for future growth and preservation, while working with municipalities to secure local input and support. Alignment with other state-level planning initiatives, as described in the introduction of this Master Plan, also supports sustainable development practices. The Highlands Preservation areas limit the expansion of water and wastewater infrastructure into the area in order to maintain critical habitat, protect drinking water supplies, provide a renewable source of wood products, and recreational resources. The Highlands Planning Areas encourage development consistent with the State Plan and smart growth principles. The NJSEA's Master Plan, adopted in 2020, creates a vision for future smart growth development in the Meadowlands District, seeking to foster a sustainable regional economy that protects, preserves, and enhances wetlands, balances planned redevelopment and new development on upland sites, integrates multiple modes of transportation, and retains and grows commercial, industrial, and financial enterprises and jobs.



Map: State Planning Areas in Bergen County

Solar Above County Parking Deck: Source: Bing Maps