

TOGETHER
**NORTH
JERSEY.**

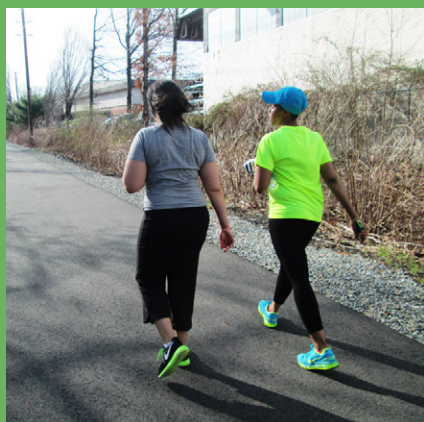
CONNECTING
PEOPLE, PLACES,
AND
POTENTIAL.

MIDDLESEX GREENWAY ACCESS PLAN

And Health Impact Assessment

SUMMER 2014

A LOCAL DEMONSTRATION PROJECT



ACCESSIBLE
GREENWAY

HEALTHY
GREENWAY

FUTURE
GREENWAY



PROJECT PARTNERS



Middlesex County



Township of Edison



Borough of Metuchen



Township of Woodbridge



Edison Greenways Group

Middlesex County represented by offices of Parks & Recreation, Planning, and Public Safety & Health.

STEERING COMMITTEE



East Coast Greenway Alliance



Edison Wetlands Association



Edgar Middle School



Herbert Hoover Middle School



Keep Middlesex Moving



Middlesex County Improvement Authority



NJ Convention & Exposition Center



NJ Department of Environmental Protection



NJ Department of Health



NJ Department of Transportation



NJ Office for Planning Advocacy



YMCA of Metuchen, Edison, Woodbridge and South Amboy

PROJECT TEAM



Regional Plan Association



Rutgers-Bloustein/NJ Health Impact Collaborative



Civic Eye Collaborative



NJ TRANSIT



North Jersey Transportation Planning Authority



Together North Jersey

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ABOUT TOGETHER NORTH JERSEY

In November 2011, the U.S. Department of Housing and Urban Development (HUD) awarded TOGETHER NORTH JERSEY (aka, North Jersey Sustainable Communities Consortium) a \$5 million Sustainable Communities Regional Planning Grant. The grant is matched with an additional \$5 million in leveraged funds from project partners. Grant funds have been used to implement the Local Demonstration Project (LDP) Program, develop a Regional Plan for Sustainable Development (RPSD) for the 13-county planning region (pictured to the right), and provide technical assistance and offer education opportunities that build the capacity of jurisdictions, organizations and the public to advance sustainability projects and initiatives.

The plan is both “place-based” and “issue-based” and uses sustainability, transit system connectivity and transit-oriented development (TOD) as the central framework for integrating plans, regulations, investments, and incentive programs at all levels of government to improve economic and environmental conditions, while promoting regional equity and resource efficiency. For more information, please visit togethernorthjersey.com

ACKNOWLEDGEMENTS

13 County Governments in the NJTPA Region
 Edward J. Bloustein School for Planning and Public Policy at Rutgers University
 North Jersey Transportation Planning Authority (NJTPA)
 NJ TRANSIT
 NJ Office of Planning Advocacy (NJOPA)
 Housing and Community Development Network of New Jersey (HCDN-NJ)
 Sustainability Institute/Sustainable Jersey at The College of New Jersey
 NJ Future
 Building One New Jersey
 PlanSmart NJ
 Regional Plan Association (RPA)

DISCLAIMER

The work that provided the basis for this report was supported by funding under an award from the U.S. Department of Housing and Urban Development. The substance and findings of the work are dedicated to the public. The authors of the report are solely responsible for the accuracy of the data, statements and interpretations contained in this document. Such statements and interpretations do not necessarily reflect the views the Together North Jersey Steering



Committee or its individual members or any other agency or instrumentality of Government.

ABOUT THE LOCAL DEMONSTRATION PROJECT PROGRAM

The Local Demonstration Project (LDP) Program seeks to advance specific projects, initiatives, and other investments for local communities to achieve short-term, implementable projects which are consistent with the RPSD goals and program outcomes.

The LDP Program provides technical assistance for strategic planning studies focused on designated areas or corridors associated with established or anticipated transit services and/or facilities. Eligible LDP projects will be sponsored by municipalities, counties, non-governmental organizations, community development corporations, and other interested organizations.

These demonstration projects help to identify partnering opportunities, milestones, and potential funding sources and serve as a model for future initiatives.

Please visit www.togethernorthjersey.com to learn more.

12 KEY ISSUES

The range of issues faced by the communities within the Region in positioning themselves for a more sustainable future is broad. The Local Demonstration Project program as a whole will attempt to engage all of the major policy issues that have been identified in recent

years, as seen in the adjacent diagram. Each project of the LDP program will address Land Use and Transportation at its core and will identify several primary issues as the project's focus.



EXECUTIVE SUMMARY

PROJECT DESCRIPTION

The Middlesex Greenway is a 3.5-mile multipurpose rail-to-trail greenway spanning Metuchen, Edison and Woodbridge in Middlesex County. Formerly an inactive Lehigh Valley rail right-of-way, the trail opened in 2012 and is now a vital outdoor resource used by nearby residents of all ages. The Middlesex Greenway Access Plan is a project to foster enhanced access to the Middlesex Greenway. This project proposes to:

1. Improve access: Enhance use of the greenway by promoting partnerships and enhancing links to nearby public transit stops, schools, existing and proposed activity centers, parks and recreation, employers, and other community destinations.
2. Improve public health: Use the greenway as an example of the public health benefits created by such an amenity.
3. Promote economic development: Market the greenway and downtowns/local businesses as a tourism opportunity.
4. Promote the greenway: Publicize the public health and community benefits of the greenway in order to increase use of the greenway.

The project's study area encompasses the Middlesex Greenway and the three communities it spans: the Borough of Metuchen, the Township of Edison, and the Township of Woodbridge. Analysis was completed on multiple geographic levels, including on the municipal level, half-mile buffer around the greenway, and one-mile buffer around the greenway. For research and implementation purposes, Middlesex County and the North Jersey region were also included in the analysis conducted.

Products from this effort include an access plan, a health impact assessment (that is among the state's first) and two promotional videos.

PROJECT THEMES

This study encompasses various themes, including:

- Land Use & Transportation
- Health & Safety
- Natural Systems
- Education
- Asset-Based Economic Development
- Arts & Culture



Metuchen Trailhead, the western end of the trail



The Middlesex Greenway



The Middlesex Greenway is close to public transportation and a number of community features and amenities. Source: Middlesex County MOD-IV tax assessment data, NJ TRANSIT 2014

THE MIDDLESEX GREENWAY & COMMUNITIES

The Middlesex Greenway is a shared corridor that not only connects but unifies three diverse communities: Downtown Metuchen, the Clara Barton neighborhood in Edison, and Fords in Woodbridge. As a whole, the Middlesex Greenway study area is a densely populated melting pot of racially, ethnically, and linguistically diverse people, immigrants and native-born persons, high-income and lower-income households, owners and renters, living in a mix of single and multifamily housing. The communities are also characterized by diverse land uses; though primarily a residential area, commercial uses can be found in the three business districts near the greenway, while industrial uses can be found south of the greenway. There are approximately 1,900 employers, 20 parks, and a number of historic, cultural, and community attractions located within one mile of the greenway, providing opportunities for physical and programmatic connections to the trail. These three historic, compactly built and densely populated suburban communities are collectively located near the Northeast Corridor rail line, NJ TRANSIT bus routes, heavily traveled roadways and major highway interchanges. Situated off of residential side streets among towering trees and native

plantings, the greenway offers an ideal opportunity for nearby residents to walk, jog or bike without cars zooming past.

The ten-foot wide Middlesex Greenway has twelve total access points; seven are ADA accessible. Greenway users face a number of challenges, including a lack of wayfinding between the greenway and nearby places of interest, feelings of isolation along the trail, and insufficient bicycle and pedestrian access from nearby neighborhoods. Nevertheless, there are opportunities to leverage existing partnerships to enhance access to the trail and connect it to the surrounding amenities.

HEALTH IMPACT ASSESSMENT FINDINGS

By combining scientific data, health expertise and public input, a health impact assessment (HIA) identifies and assesses the potential positive and negative health effects of decisions related to policies, programs or projects. The Middlesex Greenway HIA included review of background data and scientific literature, stakeholder engagement, and an online survey of residents in surrounding communities, to both characterize the baseline health status and also project health impacts of increased use of the greenway for nearby communities.

Health statistics show that Middlesex County residents are slightly less physically active and have less access to recreational resources compared with the average county in New Jersey. The greenway can play a significant role in improving physical fitness for regular users. Evidence from the survey and other stakeholder engagement suggests that the greenway is providing new physical fitness opportunities and increasing physical activity, not simply changing its location or venue. Strong scientific evidence exists for the benefits of physical activity in reducing obesity and associated diseases. There is also a strong connection between exposure to the outdoors and improved mental health, particularly when it is shared as a social activity. The relative quiet and beauty of nature provides a refuge from everyday stressors, and social interaction builds a sense of community and combats loneliness. Increased use of the trail should result in improved mental health in the community.

Despite a lack of reported crime, the fear of crime can deter some users from using the trail. Feedback from the outreach process suggests that many potential trail users are fearful that the relative isolation of the greenway makes them vulnerable to physical attack or mugging. If the access plan is successful in bringing more people

to the greenway, the feelings of isolation should decrease and with more eyes on the greenway, any potential risk of criminal activity should also decrease. Likewise, injuries from traffic crashes are a potential risk for greenway users. However, if the increased trail traffic is well-managed, and both trail users and motor vehicles become accustomed to the volume and flow, evidence shows that the proportion of injuries and crashes can actually decrease with more users.

Survey results demonstrate that close to one-third of trail users are concerned about encounters with animals, whether wild or perhaps a wandering pet. Public comments reveal concerns about mosquitoes, ticks and poison ivy, in particular. Increased time outdoors will bring about more exposure to pollutants, pests and allergens, but there is no strong evidence from either literature or from local data collection that the increase in exposure would be significant or would outweigh the other physical health benefits.

Many users prefer exercising in pairs or groups along the greenway. Strong evidence from literature links increased social interaction with a reduction in loneliness and increase in community cohesion that leads to improved mental health.

Some greenway users will purchase food or drink from local businesses as part of their trip to and/or from the greenway. Some may also purchase equipment (bicycle and related accessories, jogging shoes, etc.) from local businesses. The total annual economic boost to businesses from greenway usage can be substantial. More business for local shops and restaurants can increase employment and incomes and help to reduce stress.

Vulnerable populations include those with existing health conditions or disabilities, the young and the elderly, and others with more limited ability to access or use the greenway because of poverty, ethnic or linguistic isolation or other constraints. Baseline analysis of the demographics within a half-mile radius from the trail shows a high concentration of senior citizens. Some live independently, but others live in one of the three senior living facilities located within blocks of the greenway. There is also a higher proportion of disabled people in close proximity to the greenway than the county average. These subgroups can significantly benefit from access to a safe, flat, quiet place to exercise or to enjoy the outdoors.



The Middlesex Greenway



Eastern end of trail in Woodbridge

RECOMMENDATIONS

Through a robust public process, stakeholders, residents, businesses, educators, and other interested members of the public have proposed a number of strategies to enhance the Middlesex Greenway. In the future, the Middlesex Greenway will be an accessible, healthy, safe, smart, and destination greenway that is part of a growing network of trails - connected to amenities throughout the region - that encourages shared stewardship and integrated planning. Bicycle- and pedestrian-friendly activity loops will connect community destinations to the greenway while offering enhanced fitness opportunities. Expansion of the greenway and additional trail connections will ensure that the Middlesex Greenway is part of a regional network of parks and trails. An illustrative plan on page 9 demonstrates proposed greenway enhancements. The following objectives – each associated with a set of strategies, actions and actors – lay the groundwork for how to make the most of this valuable outdoor resource.

Accessible Greenway

- Enhance physical access to the greenway through bike/pedestrian improvements
- Enhance physical access to the greenway through expanded vehicle parking

- Enhance signage and wayfinding through structural means
- Enhance digital wayfinding and marketing of greenway

Healthy Greenway

- Enhance usability and expand physical fitness options
- Increase use and benefit by vulnerable subpopulations
- Enhance trail cleanliness and maintenance
- Minimize exposure to pests and noxious weeds

Safe Greenway

- Improve feeling of security
- Minimize crashes and injuries

Smart Greenway

- Support usage of the trail by local educational institutions
- Promote usage of the greenway by scouts
- Promote usage of the greenway by environmental/other education groups

Destination Greenway

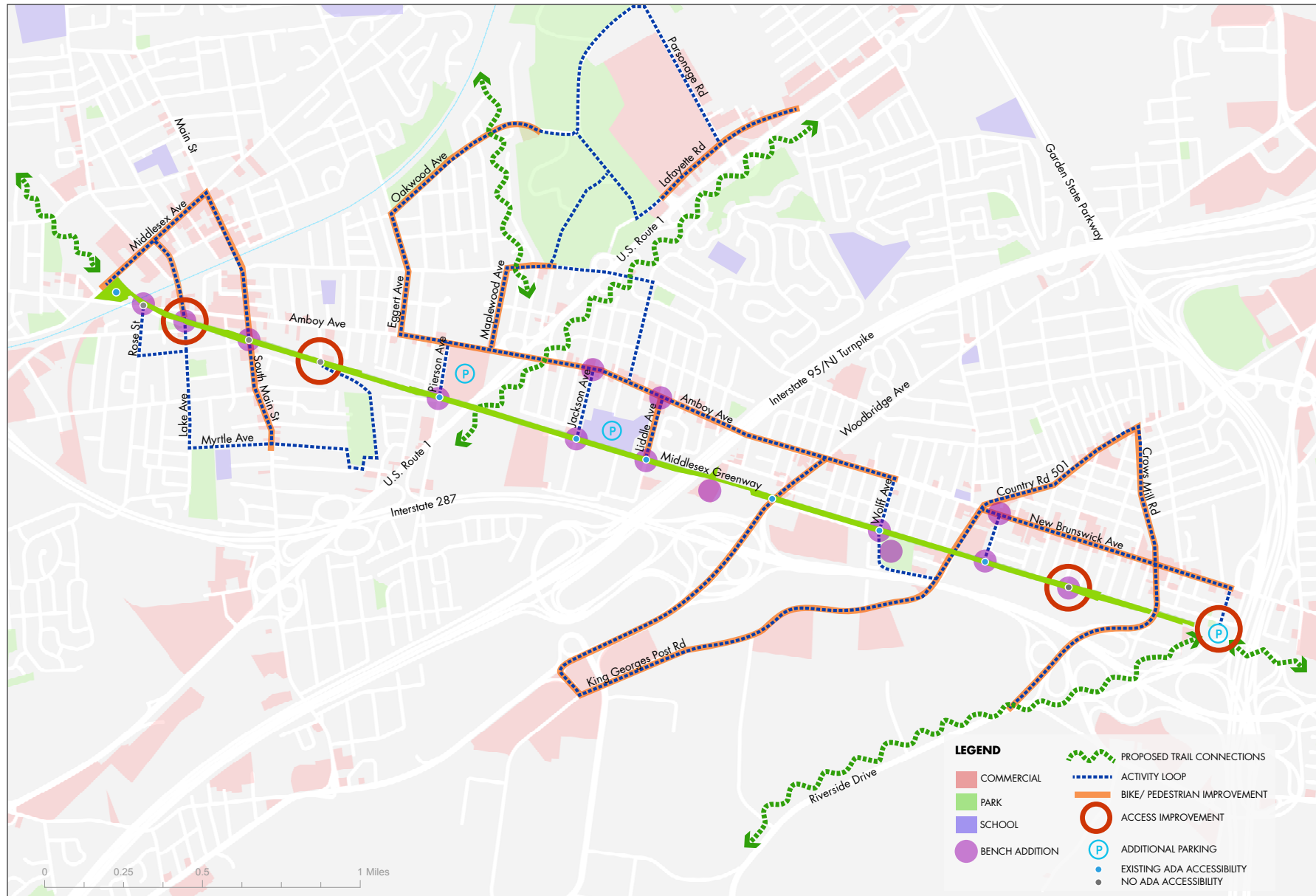
- Promote the greenway, nearby businesses and places as a local tourism destination
- Leverage the greenway as an asset for economic development
- Integrate art into the greenway

Future Greenway

- Expand access to the greenway through extension and additional access points
- Develop connectors to local and regional parks, trails, open spaces and neighborhoods
- Facilitate collaborative, regional partnerships to plan for the future use and stewardship of the greenway

IMPLEMENTATION

The Middlesex Greenway benefits from a strong existing network of supporters and partners. Implementation of these recommendations will require continued collaboration between stakeholders and continued public engagement. Partners should leverage grants from foundations and private sponsors to financially support greenway initiatives. Middlesex County, as the owner of the resource, and Edison Greenways Group, the primary non-profit advocate for the resource, cannot be the sole implementing partners of these recommendations. Municipal representatives, bike/pedestrian advocates, transportation providers, small businesses, large employers, health officials, educators, residents and others must stay involved to achieve an accessible, safe, healthy, smart, destination and future greenway.



Illustrative plan for the Middlesex Greenway that highlights proposed long-term enhancements. Annotated illustrative plans can be found on pages 55 and 70.

ACCESSIBLE GREENWAY

Abbreviated Plan Implementation Agenda
Enhance physical access to the greenway through bike and pedestrian improvements ●●●
Plan and implement bike and pedestrian improvements along main thoroughfares including CR-501, CR-616, CR-514, and King Georges Post Road
Enhance bike and pedestrian accessibility on local/other roadways that connect to the greenway and transit stops
Expand availability of secure bicycle parking at key destinations including commercial districts, schools, transit stops, parks along the greenway, etc.
Enhance physical access to the greenway through expanded vehicle parking
Expand parking space by encouraging dual/flex parking space for local business/institutional use and greenway use
Incorporate dual/flex parking strategies into future development and redevelopment near the greenway
Enhance signage and wayfinding through structural means
Enhance signage and wayfinding along the trail
Enhance signage and wayfinding to trail from key community places and transit stops
Enhance digital wayfinding and marketing of greenway
Enhance social media presence of greenway (website, online navigation, video, etc.)
Develop a logo for the greenway
Develop an electronic press kit for the greenway (including videos)
Partner with local institutions and businesses to disseminate information about the greenway
Leverage public transit to advertise the greenway
Install promotional signage on the Route 1 greenway overpass

HEALTHY GREENWAY

Abbreviated Plan Implementation Agenda
Enhance usability and expand physical fitness options ●●●
Improve access and use for bicycles
Consider rental stations for bikes and rollerblades
Provide benches and picnic tables in strategic locations
Encourage use of activity loops for exercise
Encourage local groups to use greenway for exercise
Link greenway to exercise stations
Facilitate connection between greenway and other parks and trails
Provide signs indicating access to restrooms and refreshments
Increase use and benefit by vulnerable subpopulations
Involve local health providers to prescribe greenway use for weight reduction/health improvement
Increase the number of ADA-accessible ramps
Create chaperone program for seniors and disabled
Increase access and awareness of greenway by public transportation riders
Encourage safe use of the greenway for school students
Enhance trail cleanliness and maintenance
Install additional garbage and recycling cans, and dog refuse bags
Install "no littering" signs
Partner with local groups on a cleanup program, such as adopt-a-trail
Facilitate easy ways to report graffiti
Minimize exposure to noxious weeds and animal and insect pests
Improve drainage to reduce standing water
Notify greenway users of mosquito treatments
Institute periodic animal patrols for stray or nuisance animals
Add signage/education about ticks
Notify greenway users of management plan for poison ivy and other noxious weeds

SAFE GREENWAY

Abbreviated Plan Implementation Agenda
Improve feelings of security for greenway users ●●●
Consider additional locations for surveillance cameras
Improve signage along greenway for emergency preparedness
Improve lighting and fences in strategic locations like bridges and schools
Consider strategic vegetation maintenance and management to promote eyes on the greenway
Foster walking groups through local civic groups and employers to bring safety in numbers
Increase police patrols at certain times of day/days of week
Minimize crashes and injuries for pedestrians and bicyclists accessing or using the greenway
Improve crosswalks at road intersections
Improve crosswalk safety near trail access points
Install greenway etiquette/safe use signs (e.g. yield to pedestrians, pass with care, keep right)
Where feasible, widen greenway
Identify areas with high drop-off (from paved trail to ground) and seek to reduce drop-off height

●●● Indicates objectives prioritized at June open house

SMART GREENWAY

Abbreviated Plan Implementation Agenda
Support usage of the greenway by local educational institutions ●●●
Develop outdoor-themed curricula for multiple fields of study, including athletics, history, social studies and science amongst others, that promotes sustainability
Leverage the greenway for after school sports and clubs
Support usage of the greenway for travel to and from schools
Leverage the greenway for fundraisers and philanthropy
Leverage the greenway for research purposes
Promote usage of the greenway by scouts
Create or expand a process whereby scouting groups can formally submit applications for projects along the greenway
Work with scouting groups to promote the greenway
Support usage of the greenway by environmental and other education groups
Create or expand a process whereby environmental and other educational groups can formally submit applications for projects along the greenway
Work with environmental and other educational groups to promote the greenway

DESTINATION GREENWAY

Abbreviated Plan Implementation Agenda
Promote the greenway, nearby businesses and places as a local tourism destination ●●●
Leverage the greenway to increase patronage of local businesses
Increase use of greenway by clubs
Incorporate the greenway into community festivals, events and fundraisers
Foster enhanced usage and promotion of the greenway by hotels and conference centers
Market public transportation options to access the greenway
Create day-trip itineraries of the greenway and surrounding areas for tourism purposes, highlighting the greenway as a community and ecotourism destination
Leverage the greenway as an asset for economic development
Develop a marketing strategy to approach potential developers on value of greenway
Develop a strategy to connect greenway and nearby transit to development and redevelopment
Leverage bike and pedestrian-friendly activity loops for infill, transit-oriented and greenway-oriented development
Integrate art into the greenway
Explore best practices for integration of arts into parks and trails
Work with local artists, schools and organizations to creatively integrate art into greenway (e.g. functional art, poetry plaques, musical performances near the greenway, tours with nearby art studios, sculptures and landscape architecture)
Promote greenway as a local arts destination

FUTURE GREENWAY

Abbreviated Plan Implementation Agenda
Expand access to and extend the greenway ●●●
Expand existing access points and/or add new ones and ensure they are ADA accessible
Extend the greenway east to Perth Amboy
Extend the greenway west to the Dismal Swamp
Consider winter programming (such as cross country skiing) for the trail
Develop connectors to local and regional parks, trails, open spaces and neighborhoods
Implement connection to proposed future route of East Coast Greenway
Facilitate connections to Roosevelt Park and other parks; Menlo Park Mall, Woodbridge Center Mall, and other regional destinations
Facilitate collaborative, regional partnerships to plan for the future use and stewardship of the greenway
Enhance collaboration between the county, three municipalities, Edison Greenways, and other stakeholders
Bolster Edison Greenways as a greenway stewardship organization through expanded support, membership and partnerships
Foster a network of greenway planning and stewardship groups to support similar efforts throughout the region (Morris Canal Greenway, East Coast Greenway, Hudson River Walkway, etc.)

●●● Indicates objectives prioritized at June open house

A full plan implementation agenda with actions, timeframe, actors, lead implementation partners, and potential resources and funding sources can be found in "How do we get there?", beginning on page 74 of this report. Some recommendations are listed more than once because of overlap with the health impact assessment that was conducted as part of this local demonstration project.

INTRODUCTION

The Middlesex Greenway is a 3.5-mile multipurpose rail-to-trail greenway spanning Metuchen, Edison and Woodbridge in Middlesex County, created and owned by Middlesex County. Formerly an inactive Lehigh Valley rail right-of-way, the trail opened in 2012 and is now a vital outdoor resource used by nearby residents of all ages. As a shared corridor, the Middlesex Greenway not only connects but unifies three diverse communities: Downtown Metuchen, Clara Barton in Edison, and Fords in Woodbridge. These three historic, compactly built and densely populated suburban communities are collectively located near heavily traveled roadways and major highway interchanges. Situated off of residential side streets among towering, lush trees and native plantings, the greenway is a serene retreat that offers an ideal opportunity for nearby residents to walk, jog or bike without cars zooming past, enjoying the outdoors while also exercising. Yet, at most of its length, the greenway is just a short walk away from vibrant business activity.

Greenway users may encounter a number of challenges: limited bicycle and pedestrian amenities along major and connecting roadways, lack of wayfinding to and from places of interest, and negative perceptions regarding safety. Many refer to the greenway

as a hidden gem, yet it should be a well-known, easily accessible resource to all. There is strong support by a number of diverse partners – local leaders, non-profit organizations, business owners, educators, residents, trail users and other advocates – to enhance the greenway and leverage all of its potential benefits. This access plan proposes strategies to support the greenway as a health and fitness resource, a means of traveling to work, a leisure amenity, a component of local tourism, a catalyst for economic development, a representation of the diverse neighborhoods it connects, and a demonstration of cross-community collaboration.

PROJECT INTRODUCTION

The Middlesex Greenway Access Plan is a project to create an access plan for the 3.5-mile, multi-community trail. This project proposes to:

1. Improve access: Enhance use of the greenway by promoting partnerships and enhancing links to nearby public transit stops, schools, existing and proposed activity centers, parks and recreation, employers, and other community destinations.
2. Improve public health: Use the greenway as an example of the public health

benefits created by such an amenity.

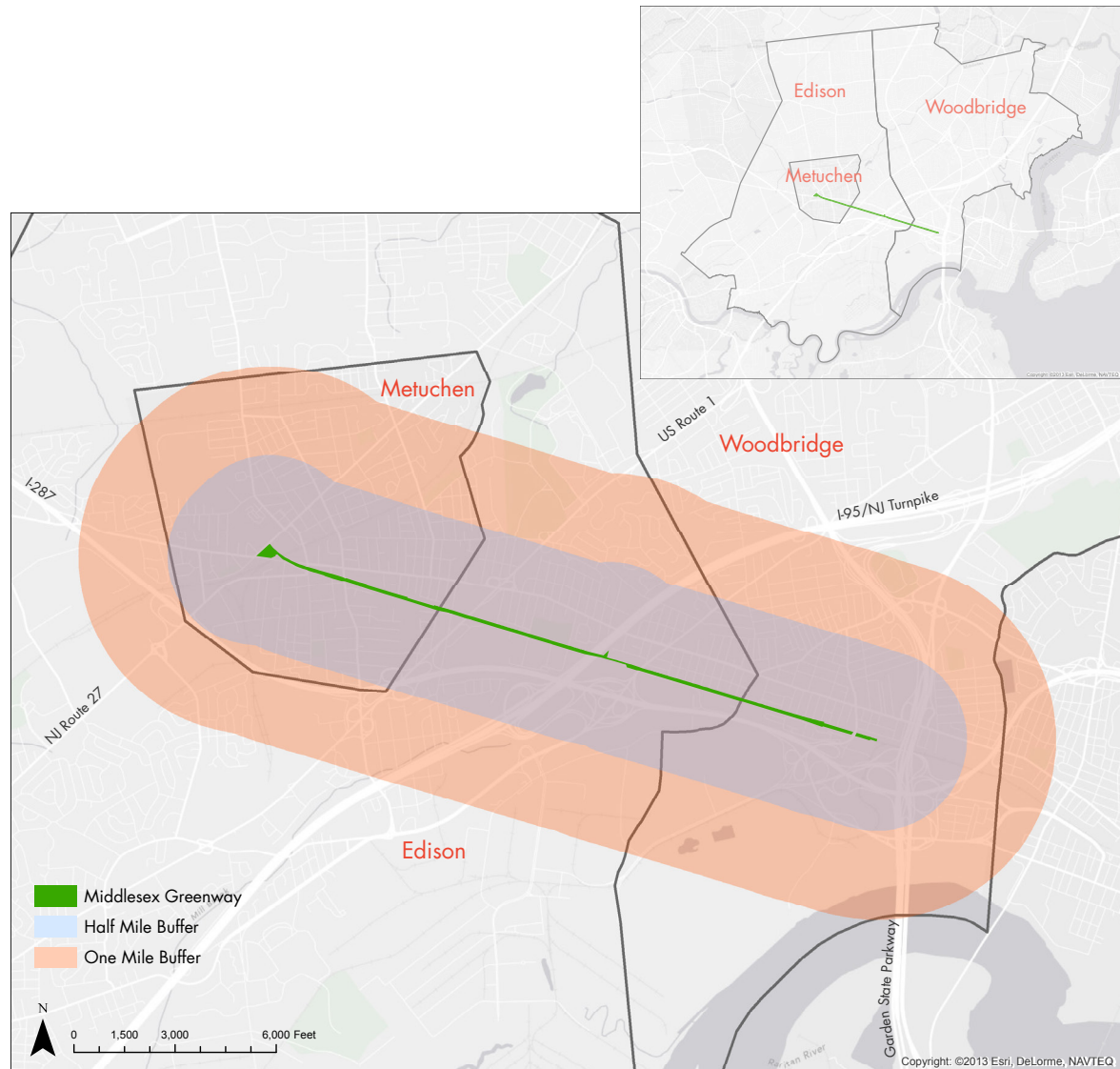
3. Promote economic development: Market the greenway and downtowns/local businesses as a tourism opportunity.
4. Promote the greenway: Publicize the public health and community benefits of the greenway in order to increase use of the greenway.

The collaborative effort has resulted in four products. The primary product is this stakeholder and public-driven access plan to increase usage of the greenway, foster greater interaction between the greenway and the neighboring communities, leverage the health and other benefits of the greenway, and support future greenway expansion efforts. A supplemental product of this effort is a health impact assessment (HIA) – among the first completed in the State of New Jersey – that examines the health impact of greenway usage on local populations and offers recommendations to support healthier and safer use of the trail. Under guidance of the project steering committee, two videos were produced; one a promotional video to foster greater awareness and usage of the greenway, the other to support greenway partners in their capacity-building and fundraising efforts as they implement the recommendations put forth by this access plan.

STUDY AREA

The project's study area encompasses the Middlesex Greenway and the three communities it spans: the Borough of Metuchen, the Township of Edison, and the Township of Woodbridge. Analysis was completed on multiple geographic levels, including on the municipal level, half-mile buffer around the greenway, and one-mile buffer around the greenway. For research and implementation purposes, Middlesex County and the North Jersey region were also included in the analysis conducted.

The greenway passes through three distinct but interconnected neighborhoods: Downtown Metuchen, Clara Barton in Edison, and Fords in Woodbridge. Given their proximity to the greenway, residents of these neighborhoods are most likely to use the greenway and as a result, be impacted by implementation of the recommendations.



Middlesex Greenway study area in context of municipalities (above) and zoomed in to buffers (below)

BACKGROUND ON THE MIDDLESEX GREENWAY

The Middlesex Greenway is a 3.5-mile open space resource spans Metuchen, Edison and Woodbridge in Middlesex County. The greenway is a rails-to-trails project that is situated on the former Lehigh Valley rail right-of-way. Lehigh Valley's Perth Amboy Branch spanned from Metuchen to Perth Amboy; trains that traveled this route transported coal and other freight from Pennsylvania to New Jersey. In 1976, Conrail acquired many of Lehigh Valley's assets.

In the early 1990s, a coalition championed the use of the inactive rail right-of-way as a multi-use trail. With the support of the Edison Greenways Group, Middlesex County acquired the 42-acre corridor in 2002, formally launching the rails-to-trails project. After approximately twenty years of planning, negotiations, acquisition and construction, the Middlesex Greenway was dedicated in September 2012. Middlesex County is the owner of the greenway while Edison Greenways Group serves as the primary greenway non-profit partner.

Today, the greenway provides a ten-foot wide space for shared usage by walkers, bikers and joggers. There are eleven access

points commissioned by Middlesex County and one informal access point built by the owners of Hillside Gardens, an apartment complex in Woodbridge. There are four access points in Metuchen, six in Edison, and two in Woodbridge; seven in total are ADA accessible. The greenway is open from dawn to dusk year-round, however is not maintained during the winter. A portion of the Middlesex Greenway in Edison is also part of the East Coast Greenway, a nearly 3000-mile trail system spanning from Florida to Maine. The next phase of plans for the Middlesex Greenway include potential expansion east to Perth Amboy and west to the Dismal Swamp in Edison and South Plainfield.



Signage for the East Coast Greenway



Courtesy of Metuchen-Edison Historical Society

Metuchen-Amboy Avenue Station on the historic Lehigh Valley Railroad



Greenway tour



Kickoff meeting

SUMMARY OF ENGAGEMENT EFFORTS

A number of stakeholder and resident outreach efforts were conducted throughout the project timeline from late January 2014 to June 2014 and are described below. Feedback from outreach can also be found throughout the report in “What We’ve Learned” callout boxes. Meeting and engagement materials can be found in Appendices F through M.

Greenway Tour

Project team members and steering committee members completed a tour of the Middlesex Greenway on January 31, 2014. The tour allowed the project team to become familiar with the greenway and nearby neighborhoods as well as provided the opportunity for in-depth discussion on opportunities and challenges at various points along the greenway. Given wintry conditions along the trail, participants traveled between access points by car. However, to better understand actual usage of the trail, project team members completed a bicycle ride along the greenway in April.

Kickoff Meeting

A kickoff meeting was held on February 11, 2014 in Metuchen and convened

approximately 30 stakeholders and project team members to review the project scope, objectives and timeline. The meeting served as the first official convening of the project steering committee. Participants engaged in discussion and completed a mapping activity of challenges and opportunities associated with the greenway, as well as what is healthy and unhealthy about the greenway. In terms of project objectives, participants agreed that economic development – marketing the greenway in conjunction with the downtowns – must be addressed. Major takeaways included the need for better promotion of the greenway, the opportunity to connect to local tourism, and the opportunity to facilitate greater connections with local health institutions.

March Steering Committee Meeting

Nearly 30 steering committee members and project team members convened on March 18, 2014 in Metuchen to review early results of research and analysis as well as discuss public outreach and stakeholder engagement strategies. Participants proposed discussion topics for the April round table meetings. The meeting was followed by a public open house.

March Open House

Approximately 60 stakeholders and members of the public contributed feedback

at the March open house in Metuchen. Participants completed a series of activities by which to offer input, including mapping of opportunities and concerns and drawing of typical trips along the greenway. A number of opportunities were identified, including better linking the greenway to redevelopment, enhancing wayfinding from nearby places and along the greenway, and programming the greenway. Concerns included general safety along the greenway, prevalence of mosquitoes, poor drainage and trash accumulation. Results from the typical trips activity demonstrated that users come from near and far, by different modes, to use the greenway.

Survey

A public survey was launched at the March open house and remained open until mid-May. While primarily online, paper versions of the survey were also provided when requested. The survey engaged 566 members of the public to offer feedback about the greenway and yielded 498 completed surveys. Respondents answered questions regarding their usage of the greenway, health conditions, and whether use of the greenway impacted certain activities, such as purchase of active wear. The survey, which serves as a crucial component of the health impact assessment (HIA), revealed

that the Middlesex Greenway has become an important health and wellness resource to the communities it serves. Full survey results and analysis can be found throughout this report, the HIA in Appendix A, and in Appendix M.

Economic Development Round Table

A series of topic-based round table discussions were held on April 11, 2014 in Clara Barton, Edison. Business owners, chamber members, and economic

development professionals offered feedback on business owners can benefit from greenway usage and promotion. Major takeaways included: better linking the Middlesex Greenway to community events; providing greater bicycle parking to accommodate cyclists that come from the greenway to the downtowns; and cross-marketing the greenway with local businesses, through day-trip itineraries, to promote local tourism.



At the March open house, youth conveyed what they like to do along the greenway through illustration



March steering committee meeting



March open house

Health & Safety Round Table

The health and safety round table meeting, held on April 11, 2014, convened health professionals and public safety officials to explore ways to ensure safety along the trail, enhance the perception of safety and maximize health benefits. Major takeaways included: better supporting use of the trail by senior citizens and those with limited mobility; instituting more frequent and coordinated patrols of the greenway to minimize perceptions of isolation; and better promoting the trail in employee wellness programs.

Education Round Table

Educators, students and parent-teacher organization members offered feedback on how to better link the Middlesex Greenway to nearby schools as a safe travel route, and through curriculum and enhanced extracurricular use. Safe usage of the trail by children can be fostered by improving the line of sight to the trail, instituting neighbor safe havens, and encouraging group walks. In terms of curriculum, educators are interested in utilizing the greenway for more frequent, interactive outdoor education, but prefer a curriculum that is packaged and readymade. At the same time, there are opportunities to leverage the greenway across a number of subjects, including environmental science, history and the arts.

Olsen Towers Survey

On May 3, 2014 project team members and Rutgers-Bloustein students visited Olsen Towers in Fords, Woodbridge and conducted one-on-one interviews and surveys to collect additional feedback from the elderly population living near the trail.

May Steering Committee Meeting

A steering committee meeting on May 7, 2014 in Woodbridge convened approximately 20 project team and steering committee members to discuss findings from research and outreach as well as early draft recommendations. Participants also discussed ideas for greenway videos, and agreed that two videos – a short video for promotional uses and a longer video for capacity-building purposes – would be beneficial.

State Agency Meeting

Project team members, steering committee members, and state agency officials met on June 9, 2014 at Herbert Hoover Middle School in Edison to discuss draft final recommendations for the greenway, prioritize recommendations for implementation, and identify funding sources and opportunities for resource-sharing. The meeting kicked off with a short tour of the greenway between Jackson Avenue and the Route 1 bridge. Participants identified a number of grant opportunities

to support the greenway as well as activities tied to the trail. Feedback from the meeting has been incorporated into the final recommendations and plan implementation agenda within this report.

June Final Open House

Almost 50 stakeholders and members of the public participated in the final open house at Herbert Hoover Middle School in Edison on June 9, 2014. Attendees prioritized recommendations and participated in video production. Extending the greenway, enhancing bicycle and pedestrian access to the greenway, and supporting greenway usage by local educational institutions arose as the highest priority recommendations. Feedback from the open house has been incorporated into the final recommendations and plan implementation agenda within this report.

Videos

In May 2014 the project team launched the production process for two videos: one to promote the greenway, the other to help build capacity and support implementation of access plan recommendations. Throughout the summer, project team members filmed along the greenway and at community events, conducting interviews with greenway users.

The final videos are available online at www.togethernorthjersey.com.



Economic development round table meeting



Survey launch at the March open house



Youth drawing at the March open house

Engagement of Traditionally Disadvantaged Populations

Traditionally disadvantaged populations are considered to be groups that have been marginalized from planning processes, such as low-income individuals and families, minority communities, youth, elderly, persons with disabilities and persons with limited English proficiency. The project team and steering committee took specific actions to engage these populations. Three Herbert Hoover Middle School students and a Girl Scout/Edgar Middle School student represented local students and community youth on the steering committee. The open houses similarly engaged young children through drawing, visioning and pedestrian safety activities. Representatives of the neighboring senior centers participated in the round table discussions. Further, project team members spent an afternoon with residents of Olsen Towers in Fords to understand the challenges that elderly and disabled persons face in accessing the greenway. To support participation by limited English speakers, all open house and survey materials were translated into Spanish.



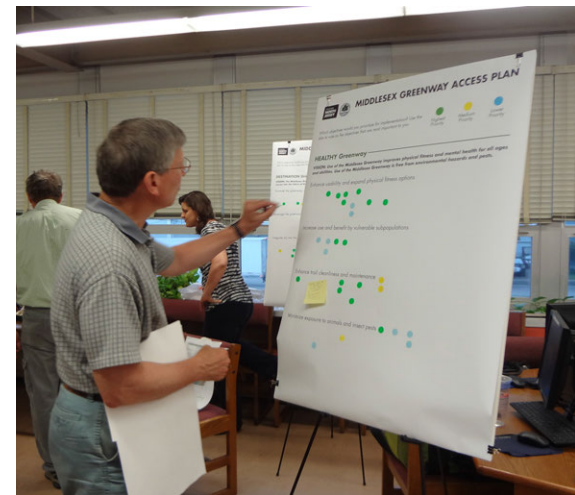
State agency tour of the greenway



Video production



June open house



June open house

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PHASE 1: WHERE ARE WE NOW? WHERE ARE WE HEADED?



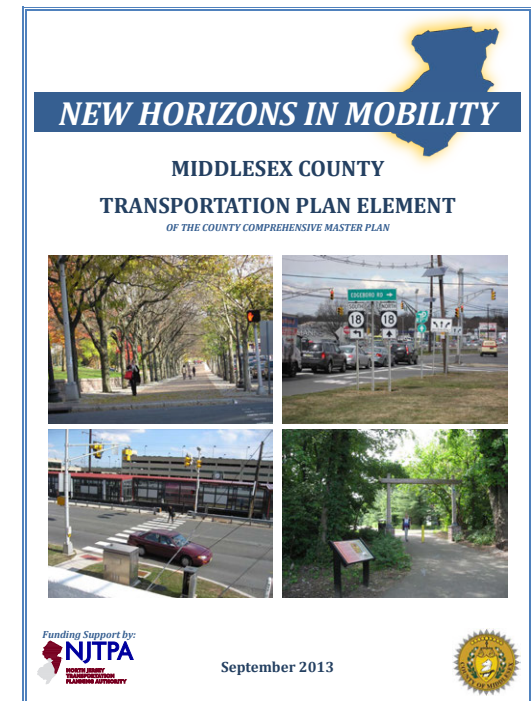
BUILDING ON EXISTING EFFORTS

Recognizing the previous planning efforts that local stakeholders have undertaken – including the decades-long endeavor to launch the Middlesex Greenway – this plan draws heavily from past and current efforts and partnerships. The below studies represent a fraction of the plans and reports reviewed by the project team to inform this access plan and the supplemental health impact assessment:

- Middlesex Greenway Extension Plan (2010)
- Edison Master Plan (2003)
- Woodbridge Master Plan (2009)
- Metuchen Master Plan Reexamination (2006)
- Metuchen Circulation Plan Element (2009)
- Middlesex County Transportation Plan Element (2013)
- Creating a Healthy Environment: The Impact of the Built Environment on Public Health (2009)
- The Benefits of Parks: Why America Needs More City Parks and Open Space (2003)
- Designing Against Crime: Principles of Crime Prevention Through Environmental Design (2006)
- A Cost-Benefit Analysis of Physical Activity Using Bike/Pedestrian Trails (2005)
- Estimating the Economic Value and Impacts of Recreational Trails: A Case

Study of the Virginia Creeper Rail Trail (2007)

- A Health Impact Assessment of Park, Trail, and Green Space Planning in the West Side of Greenville, South Carolina (2013)
- Miami-Dade County Trail Benefits Study (2011)
- Health Impact Assessment of the Atlanta Beltline (2006)



DEMOGRAPHICS

The following demographic analysis utilizes data from the 2010 U.S. Census, 2010 American Community Survey (ACS) 5-year estimates, and 2012 ACS 5-year estimates. The analysis was completed for a one-mile buffer around the greenway and on the municipal level. For comparison purposes, data was also collected for Middlesex County and the 13-county North Jersey region. Further analysis can be found in Appendix B.

As a whole, the Middlesex Greenway study area is a densely populated melting pot of racially, ethnically, and linguistically diverse people, immigrants and native-born persons, high-income and lower-income households, owners and renters, living in a mix of single and multifamily of housing.

Population & Households

Nearly 82,000 people in approximately 29,900 households live within one mile of the Middlesex Greenway. Among the three study area municipalities, Edison has the largest population while Woodbridge follows closely behind. Both communities are home to nearly 100,000 residents each. Similarly, Edison and Woodbridge have a comparable number of households at 36,302 and 36,124 respectively. Metuchen is home to 13,574 residents living in 5,253 households. Collectively the three municipalities contain

over 25% of the county's total population.

Race & Ethnicity

Among residents living within one mile of the Middlesex Greenway, approximately 41% identify as non-White; 8.8% of the population is Black and 18.6% Asian, with 26.4% Hispanic of any race. Meanwhile, nearly 30% of the total population living within one mile of the greenway is foreign-born, comparable to the county but higher than that of the region. The majority of foreign-born residents living within one mile of the greenway originate from Latin America and South Central Asia.

Racial composition varies across the three municipalities. At approximately 60%, non-White residents comprise a larger share of population in Edison than in the other two municipalities. In Metuchen and Woodbridge, non-White residents comprise 26.7% and 49.3% of total population, respectively. The three municipalities, like Middlesex County and the North Jersey region, are very diverse communities.

Housing & Homeownership

Housing vacancy rates across the three municipalities hover close to 4% and are slightly lower than housing vacancy rates in the county, while far lower than

the housing vacancy rate of 8% in the North Jersey region, suggesting that these communities are desirable places to live. Homeownership rates vary across the three communities; approximately 78.5% of Metuchen households, 69% of Woodbridge households, and 65.4% of Edison households are owner-occupied. Homeownership rates in Woodbridge and Edison are comparable to those of the county and region.

In terms of housing mix, at 79% Metuchen has the highest share of single family homes relative to total housing units. Multifamily homes comprise approximately 38% and 32% of total housing units in Edison and Woodbridge respectively. There are several high-density residential units nearby to the greenway.

Income & Poverty

Median household income in the study area jurisdictions is relatively high. Middlesex County has a median household income of \$77,615. Median household income in the three municipalities surpasses that of the county, with Metuchen having the highest at \$94,410. Within one mile of the greenway, approximately 7.5% of households are in poverty, less than the region as a whole but greater than the county. Poverty rates are higher in Edison and Woodbridge,

particularly in places located south of the greenway. Approximately 4.3% of residents within one mile of the greenway live in racially concentrated areas of poverty, comparable to the county but half that of the North Jersey region.

Vehicle Ownership & Commuting

Nearly 10% of households within one mile of the Middlesex Greenway are carless. In the three municipalities, zero or one car households comprise approximately 35% of total households. As a densely populated suburban place, vehicle travel and automobile uses may dominate, but public transportation systems will remain important to households that own zero or one vehicle.

The majority of resident workers in the study area municipalities drive alone to work. Public transportation usage varies between the communities, with 15% of Edison resident workers, 21% of Metuchen resident workers, and 10% of Woodbridge resident workers commuting to work via public transportation.

Traditionally Disadvantaged Populations

Traditionally disadvantaged populations are considered to be groups that have been marginalized from planning processes, such as low-income individuals and families,

minority communities, youth, elderly, persons with disabilities and persons with limited English proficiency. An analysis was completed for one-mile and half-mile buffers around the greenway. Nearly 55% of residents within one mile of the greenway identify as non-White, and nearly 9% are persons with disabilities. There are 614 HUD housing units within one mile of the greenway. At 7 units per 1,000 residents, the greenway study area has a lower share of HUD units relative to population than the county and the North Jersey region.

At nearly 30%, foreign-born residents comprise a large share of people living within one mile of the greenway. Nearly 16% of residents living within one mile of the greenway have limited English proficiency (LEP). Spanish is the most common language spoken at home for the LEP population, with Gujarati and other Asian languages following. With a high share of LEP persons, signage along the greenway will need to accommodate those who have limited understanding of the English language.

Elderly persons (over the age of 75) comprise 6.5% of the population living within one mile of the greenway. However, zooming in to a half-mile buffer around the trail, the population is relatively older, with a higher

concentration of disabled people than the surrounding towns. Residents over 75 years of age make up 16.3% of the population within a half mile of the greenway versus 13.6% in the three municipalities combined. Also, the percentage of disabled is 10.9% in the half-mile radius. The high share of limited mobility persons living near the greenway has implications for ADA access along the trail.



Hillside Gardens, a multifamily housing complex in Fords

MOBILITY



Amboy Avenue in Edison



Greenway bridge over Route 1

Roads & Highways

The Middlesex Greenway is located at the nexus of several major highways including I-95/NJ Turnpike, the Garden State Parkway, NJ Route 440/I-287, US Route 1 and NJ Route 27. The juncture of these major roadways presents opportunities for regional connections to the greenway and the neighboring communities, but also poses land use, design and access challenges for residents of these communities. Major county roads include Amboy Avenue/New Brunswick Avenue (CR-501 and CR-616) and Woodbridge Avenue (CR-514). Amboy Avenue/New Brunswick Avenue is the greenway's parallel complementary corridor; as such, at most of its length, the trail is just a few blocks from this roadway. Woodbridge Avenue serves as an intersecting connector to the trail. Residential neighborhoods proximate to the greenway are primarily arranged in a street-and-block pattern, while those further north and south contain road networks more characteristic of traditionally-built suburbs. In Metuchen, Main Street serves as the primary retail and travel corridor. Amboy Avenue serves as Clara Barton's main street, while New Brunswick Avenue serves as Fords' main street.

Public Transportation

Residents of the three communities are served by NJ TRANSIT rail and bus service. The Northeast Corridor, NJ TRANSIT's busiest commuter line, provides service between Trenton Transit Center and New York Penn Station. The line services Metuchen train station, Edison train station and Metropark station in Woodbridge. Residents are able to access Midtown Manhattan in less than an hour from the greenway via the Metuchen train station. The North Jersey Coast Line operates along the coast and serves Woodbridge at its Main Street station, as well as Perth Amboy. Plans for future extension of the Middlesex Greenway allude to the opportunity to connect to the Perth Amboy train station on the east and the Dunellen train station on the west, serviced by NJ TRANSIT's Raritan Valley Line.

The study area is also served by multiple NJ TRANSIT bus routes, including 802/805, 810, 813 and 819. Route 813 operates within blocks of and parallel to the greenway; the route runs along Amboy Avenue/New Brunswick Avenue, connecting Downtown Metuchen, Clara Barton and Fords. The route also offers service to Raritan Center and Middlesex County College. The 802/805 loop operates from Metropark in Woodbridge and makes stops in Edison and Fords. Route

810 connects Fords, Menlo Park Mall in Edison and Metuchen to other destinations in Middlesex County, including New Brunswick, Highland Park and Woodbridge Center Mall. Route 819 connects Metuchen and northern Edison to South Plainfield, Plainfield and Piscataway. None of Middlesex County's public shuttles operate in the study area. The map on page 34 illustrates the greenway in proximity to train stations and bus stops.

Bicycle & Pedestrian Infrastructure

Walkability and bikeability vary throughout the study area communities and along Amboy Avenue/New Brunswick Avenue, the main parallel thoroughfare that links many neighborhoods to the greenway. The Middlesex Greenway is among the few dedicated bicycle and pedestrian paths in the study area. Central business districts such as Downtown Metuchen, Clara Barton and Fords have streetscape amenities including brick pavers, benches, wide sidewalks, curb bumpouts, street lamps and banners to support a more pleasant and safe pedestrian environment. Metuchen, for example, even utilizes crosswalk safety flags at some of its crosswalks. Bicycle racks, however, are notably limited in most areas. Between these business districts, Amboy Avenue/New Brunswick Avenue is heavily auto-oriented. Commercial uses are set back from the

road and separated by vast surface parking, while sidewalks are narrow and jagged and crosswalks faint, even near bus stops. There are no shared or dedicated bicycle lanes along Amboy Avenue/New Brunswick Avenue; however, the width of the roadway may lend itself to these enhancements. Other major roadways, such as Woodbridge Avenue and Middlesex Avenue, lack pedestrian and bicycle infrastructure to a larger degree. Woodbridge Avenue's sidewalks are narrow and preclude ADA access. Meanwhile, a lack of shoulders along a major stretch puts pedestrians and cyclists adjacent to fast-moving traffic. Commercial corridors and major roadways may benefit from traffic-

calming and streetscape enhancements. Middlesex County, Metuchen and Woodbridge have already enacted resolutions in support of Complete Streets.

The 2013 Middlesex County Transportation Plan Element recommends an adequate and safe bicycle and pedestrian network and in particular, suggests extending the Middlesex Greenway, developing a trail along Route 1 in the PSE&G-owned right-of-ways, and providing bicycle paths along the Arthur Kill and Raritan River waterfronts. In addition, the plan supports expanded bicycle parking and amenities at major public transportation and activity centers.



Woodbridge Avenue near the Middlesex Greenway

Keep Middlesex Moving (KMM) is the transportation management association (TMA) operating throughout Middlesex County and the study area. KMM promotes public transportation options, organizes carpool and vanpool programs, and supports bicycle and pedestrian safety through various initiatives. The TMA received grant funding to support non-infrastructure Safe Routes to School programs throughout the county.



Crosswalk flags in Metuchen



Underutilized surface parking at Tano Mall

What We've Learned

- Greenway crossings at Pierson Avenue and Woodbridge Avenue are hazardous.
- There is an interest in adding sidewalks at Raritan Center, a nearby employment destination.
- Cyclists may be discouraged from visiting business districts or traveling from the greenway via bicycle because of a lack of bike racks.



Metuchen train station



NJ TRANSIT bus in Clara Barton

COMMUNITIES

Downtown Metuchen, Clara Barton in Edison, and Fords in Woodbridge can be characterized as compactly built suburbs comprised of residential and commercial uses. Each community has its own central business district with small retail businesses. Large businesses and industrial employers within the study area can be found just south of the greenway.

Land Use

Physical barriers, such as major highways, highway interchanges, and active and inactive rail lines, bring about land use challenges within the three greenway communities. The map on page 29 illustrates land use near the Middlesex Greenway. While primarily residential, a mix of uses can be found in the study area. The greenway is within walking distance of several educational institutions; Herbert Hoover Middle School in Edison neighbors the greenway at the Jackson Avenue access point, while Edgar Middle School in Metuchen is within blocks of the Main Street access point. Many of the commercial uses in the study area are highway or auto-oriented; however, retail centers in Metuchen along Main Street, Clara Barton along Amboy Avenue, and Fords along New Brunswick Avenue offer pedestrian-scale shopping opportunities.

Industrial sites can be found southeast of the greenway bordering the Raritan River. A number of vacant sites are scattered throughout the study area. In the residential neighborhoods, vacant sites are an appropriate scale for infill development. Vacant sites near industrial areas are comprised of large parcels and more suitable for large-scale redevelopment. As such, most of the industrial area has been designated by Middlesex County as a redevelopment area.

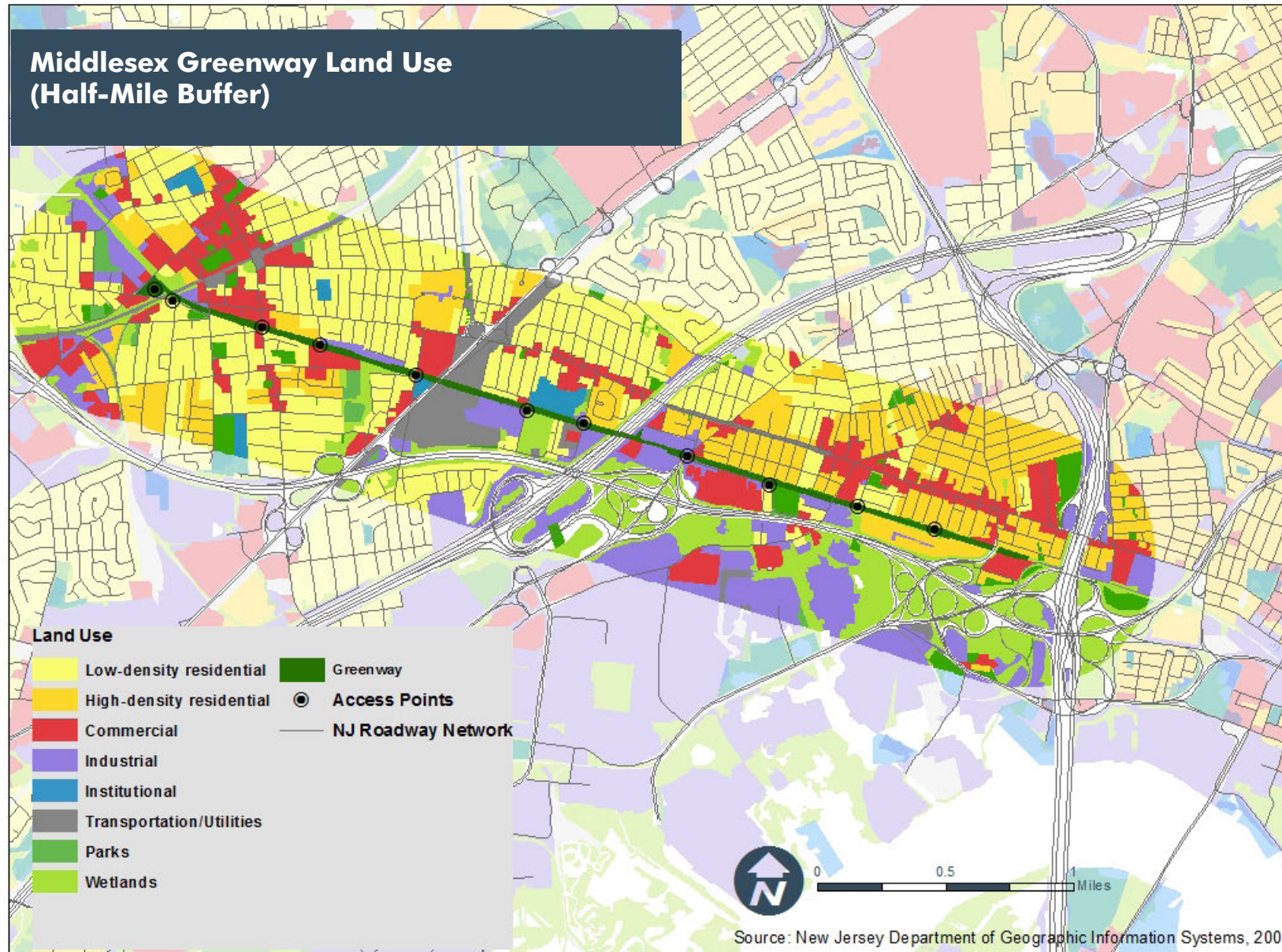
In Edison, efforts continue to further develop Clara Barton as a vibrant downtown by encouraging small business development and streetscape and façade improvements along Amboy Avenue. South of the greenway along Jackson Avenue is a redevelopment area that, under the 2003 Master Plan, was envisioned to become a senior citizen community. Any residential uses in this redevelopment area should have strong ties to Downtown Clara Barton through multi-modal access. As Edison continues to enhance bicycle and pedestrian opportunities, the township looks to increase public access to the Raritan River waterfront. Woodbridge's Master Plan promotes redevelopment of the Keasbey industrial area which also borders the waterfront. Along New Brunswick Avenue in Fords, the township envisions rehabilitation through a façade improvement program and establishment

of a special improvement district. Further, rehabilitation along New Brunswick Avenue should connect to extension of the greenway. The Borough of Metuchen hopes to target growth around its rail station. Pearl Street, surrounded by an expanse of surface parking lots, is slated to be redeveloped in the near future.

Businesses & Employment

The Middlesex Greenway study area has three distinct areas of business activity: Downtown Metuchen, the Amboy Avenue corridor in Clara Barton, and the New Brunswick Avenue corridor in Fords. North of the train station, Main Street in Metuchen is characterized by vibrant commercial activity. South of the greenway, Main Street is characterized by vacant lots and buildings. Vacancies along the major retail corridors present prime opportunities for infill development and revitalization.

Large shopping centers such as Menlo Park Mall and Woodbridge Center Mall are located proximate to the greenway along US Route 1 and likely attract visitors from the greater region. As large municipalities, Woodbridge and Edison have multiple business districts and commercial corridors, though most are located further from the greenway.



Over 1,900 employers are located within a mile of the greenway, presenting opportunities for greenway-business partnerships. The majority of employers (over 1,800) are small businesses with fewer than 50 employees. Fifty employers are midsize employers (50-99 employees), while 53 are large employers (100+ employees). Employers adjacent to the trail include PSE&G, the Marriott Courtyard and Tano Mall tenants. A full inventory of businesses can be found in Appendix C. Based on U.S. Census Longitudinal Employer-Household Dynamics origin-destination employment data for 2011, approximately 23,833 workers are employed within one mile of the greenway. Of these workers, nearly 1,600 also live within one mile of the greenway, presenting opportunities to leverage the greenway as a travel-to-work route or as part of employee wellness programming.

The Metuchen Chamber of Commerce, Edison Chamber of Commerce, Woodbridge Metro Chamber of Commerce, and New Brunswick Avenue Special Improvement District (SID) oversee events and business development in the three communities. The Middlesex County Chamber of Commerce similarly serves as the voice of business throughout the county.

Attractions & Places of Interest

The Middlesex Greenway communities contain a number of historic, recreational and community attractions to draw local and regional visitors to the area. Formerly the Lehigh Valley rail right-of-way, the greenway itself serves as a local recreational and historic attraction. There are four points of interest directly on the greenway, including Fords Porcelain Works, St. Stephens Cemetery, Hillside Cemetery and the Lehigh Valley Railroad archeological site. Within one mile of the greenway, there are four sites on the National and New Jersey Registers of Historic Places, including the Metuchen Post Office, Ayers-Allen House, Metuchen Borough Hall and Roosevelt Hospital. An additional three sites have been declared register-eligible: the Old Franklin Schoolhouse, the Metuchen Railroad Station and the Washington Hose Company.

Within one mile of the greenway, users can find over twenty parks that contain amenities beyond physical recreation. Roosevelt Park is among the largest and most programmed of the nearby parks, containing playing fields, tennis courts, basketball courts, picnic groves, playgrounds, a lake and an ice skating rink. Plays-in-the-Park at Roosevelt Park features three full-scale Broadway-style musicals each summer at the park amphitheater. Located

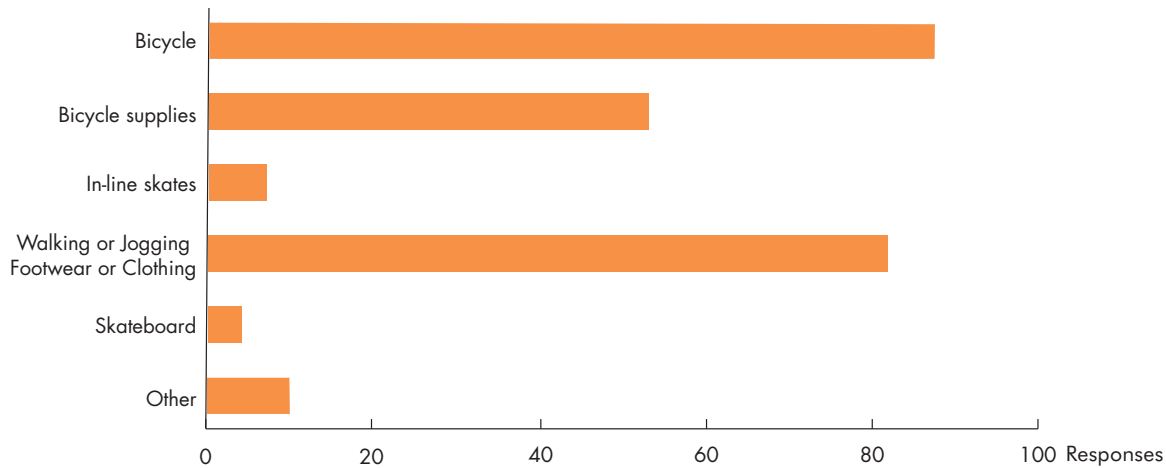
west of the greenway is the Dismal Swamp, a large conservation area that is home to over 175 species of birds and features walking trails. A portion of the Middlesex Greenway is also part of the East Coast Greenway, a 3000-mile developing trail system spanning Florida to Maine, with nearly 100 miles in New Jersey.

The three communities host a number of events that take place near the greenway, including street fairs, farmers markets, bike tours, parades, musical performances and holiday celebrations. Many of these events are recurring, hosted by the local chambers of commerce, and offer opportunities to connect local attractions to the trail. Inventories of community events, parks and historic sites can be found in Appendix C.



The Middlesex Greenway and nearby places of interest

Survey Question: Has your use of the trail influenced your purchase of the following?



New Brunswick Avenue in Fords



Vacant storefronts along South Main Street in Metuchen

What We've Learned

- The business districts lack bike racks.
- Business owners may be disinclined to have bike racks adjacent to their properties.
- Users are interested in bike rentals near the trail.
- Dudash Park is underutilized and could benefit from increased programming or amenities, such as fitness equipment and restrooms.
- The New Brunswick Avenue SID could be a more robust, effective entity.
- The greenway could be leveraged to benefit struggling businesses along South Main Street in Metuchen and New Brunswick Avenue in Woodbridge.
- The greenway could be programmed for educational uses, such as nature walks and scout projects.
- Residents use the trail not only for fitness and leisure purposes, but to complete errands, such as visiting the farmers market or shopping at Tano Mall.
- Employers could take greater advantage of the greenway through wellness programs.

THE MIDDLESEX GREENWAY TODAY

The Middlesex Greenway is a valuable outdoor resource that offers opportunities for fitness, recreation and social cohesion. With eleven Middlesex County-commissioned entrances and one unofficial entrance at Hillside Gardens, there are twelve total greenway access points. Of these, seven are ADA-accessible. The greenway offers a flat ten-foot wide path for most of its length, with several paved bumpouts intended to provide space for vehicular turn-around. Stakeholders have suggested that bumpouts could be accommodated at a few additional areas along the greenway. Trail topography causes water to pool and remain stagnant at either side of the greenway, fostering concerns about mosquitoes and other pests. Feedback from the county indicates that the Middlesex County Mosquito Extermination Commission is aware of this challenge and treats the greenway regularly. Middlesex County Parks and Recreation regularly maintains the greenway while Edison Greenways Group intermittently organizes greenway cleanups. In terms of safety, municipal public safety officials patrol the greenway within their jurisdictions.

The charts on pages 35-36 provide background information on greenway access at each trail entrance. Woodbridge residents have relatively limited access to the greenway.

Meanwhile, ADA accessibility is limited in Metuchen. Non-ADA accessible access points contain ramps to transport bicycles. However, these ramps are narrow and cumbersome to use.

Due to replacement of the NJ Route 27 bridge in Metuchen adjacent to Lake Avenue, the Middlesex Greenway has been closed between Rose Street and Lake Avenue. Until construction is complete, greenway users must utilize a detour route along Spring Street and Rose Street. However, as part of this project, NJDOT will be constructing two ADA accessible entrances to the greenway at Lake Avenue.

The greenway access points are characterized by distinct, themed entrances that have lighting, text signs about the rules and regulations of the greenway, trash receptacles, and signage with entrance names. Along the greenway, users can find mileposts at quarter-mile intervals. At various greenway entrances, users can also find plaques that describe the history of the trail. Signage along the greenway, however, is otherwise limited. For new or infrequent greenway users who are unfamiliar with the area, existing signage at the access points does not relay information about nearby points of interest, and can be insufficient for wayfinding.



Greenway closure at Lake Avenue



Trail bumpout



The Middlesex Greenway in relation to the community features and amenities, Source: Middlesex County MOD-IV tax assessment data, NJ TRANSIT 2014

Evaluation of Greenway Access Points

Access Point	Parking Availability	Transit Access	ADA Accessibility	Bike/Ped Access
Metuchen Trailhead	Yes	The trailhead is nearby to the Metuchen train station and bus stops along Middlesex Avenue. The closest stop is approximately two blocks northeast at Center Street and Middlesex Avenue.	Yes	Located off of Middlesex Avenue, bicycle and pedestrian accessibility to the trail is limited. There is one major crosswalk across Middlesex Avenue at the trailhead. However, sidewalks along the rest of the roadway are too narrow, unmaintained or nonexistent to promote safe bike and pedestrian travel to the trailhead. Similarly, there are no bicycle lanes or shared lanes along Middlesex Avenue. The entrance is at grade.
Rose Street	No designated parking. Residential street parking may or may not require permit.	The Rose Street entrance is proximate to the Metuchen train station.	No	Rose Street is primarily a residential street. Construction at Lake Avenue and other nearby areas has rendered the access point somewhat difficult for bicycle or ADA accessibility. Nevertheless, Rose Street and Spring Street, the roadways used for the detour, are fairly calm from traffic. The greenway sits slightly below grade.
Main Street	No designated parking, but meters nearby.	The Metuchen rail station is located on Main Street, approximately four blocks north of the Main Street access point. NJ TRANSIT bus service also operates along Main Street. Bus stops are located approximately one block from the access point.	No	The Main Street entrance provides the most direct connection between Downtown Metuchen and the greenway. Because the greenway sits far below grade here, users must climb down several flights of stairs to get from the road to the trail. There is one bench at the access point. The Main Street bridge lacks crosswalks for users to safely access the greenway. Pedestrian and bicycle access to the entrance is adequate from the north, but less so from the south. Along South Main Street, sidewalks are jagged and narrow. Crosswalks, however, are distinguished through use of brick pavers and crosswalk flags.
Green Street	No designated parking. Residential street parking only during business hours from Monday to Friday.	There is a bus stop located one block north of the greenway near the intersection of Green Street and Amboy Avenue.	No	Green Street is a residential street that branches off of Amboy Avenue. The greenway here is located slightly below grade. Because there is no vehicular outlet on the southern end of Green Street, traffic here is relatively calm and bicycle and pedestrian access relatively easy. Bike/pedestrian accessibility is more limited along Amboy Avenue. Stakeholders wish to enhance this entrance by creating access at Charles Myrtle Park just south of the greenway.
Pierson Avenue	Limited designated parking at the back of Tano Mall near trail entrance. Surface parking in front of Tano Mall appears to be underutilized.	There is a bus stop located one block north from the Pierson Avenue entrance point along Amboy Avenue, in front of Tano Mall.	Yes	Because Pierson Avenue is a two-way road that connects to U.S. Route 1, traffic along this roadway is heavier than at other access points. A crosswalk at this access point provides a visual cue to drivers of oncoming pedestrians and cyclists. Nevertheless, traffic-calming measures could be implemented here. Greenway users have limited line of sight at the Pierson Avenue approach and must be very near to the roadway to see oncoming traffic. Pierson Avenue at the greenway entrance lacks sidewalks. Similarly, there are no bicycle lanes or shared lanes here. Limited bicycle parking is available at the access point. The entrance is at grade.
Jackson Avenue	No designated parking. Residential street parking may or may not require permit.	Bus stops are located over one block north near the intersection of Coolidge Avenue and Amboy Avenue.	Yes	Jackson Avenue is a primarily residential street. The access point is at grade and sits near a school, several commercial establishments, a large vacant lot and the PSE&G facility. There is a crosswalk and traffic-calming signage near the access point. The roadway is relatively calm; however, stakeholders may want to consider additional bicycle and pedestrian improvements here because of its proximity to a school.

Evaluation of Greenway Access Points (continued)

Access Point	Parking Availability	Transit Access	ADA Accessibility	Bike/Ped Access
Liddle Avenue	No designated parking. Residential street parking may or may not require permit.	Bus stops are located approximately one block north at the intersection of Liddle Avenue and Amboy Avenue.	Yes	Liddle Avenue is a limited access roadway with inadequate pedestrian and bike accessibility. South of the greenway, the roadway is wide but not necessarily well-suited for bicycle usage. North of the greenway, the road is very narrow and unmaintained. Tall trees, overgrown vegetation, and backyards facing the street limit visibility and may foster negative perceptions along the roadway. Further, trucks frequently use this narrow corridor to get to and from Amboy Avenue, precluding safe bike and pedestrian usage. Because the road intersects Amboy Avenue near a gas station, it is difficult to find the street from the main thoroughfare. The access point is at grade.
Woodbridge Avenue	No designated parking.	Bus stops are located several blocks north at the intersection of Amboy Avenue and Woodbridge Avenue.	Yes	Woodbridge Avenue is a county roadway and main thoroughfare that connects Woodbridge and Edison to NJ 440/I-287 and the NJ Turnpike. The access point is at grade. Northbound Woodbridge Avenue is three lanes wide while southbound Woodbridge Avenue is two lanes wide. Near the greenway access point, the two sides of the roadway are separated by an island. While crosswalks here are marked, crossing here is difficult because the traffic and crosswalk signals do not allocate sufficient time for pedestrians. The roadway does not have shoulders, and given the high speed, high volume nature of traffic in this area, bikeability is very limited. Traveling north along Woodbridge Avenue, sidewalks are very narrow (just 1-2 feet in some areas) and unmaintained.
Wolff Avenue	No designated parking. Residential street parking may or may not require permit.	Bus stops are located several blocks north at the intersection of Wolff Avenue and Amboy Avenue.	Yes	Wolff Avenue is a primarily residential roadway that terminates at the greenway entrance. The greenway sits slightly below grade here. The Wolff Avenue entrance is located right across from the Dudash Park access point. Because there is no vehicular outlet on the southern end of Wolff Avenue, traffic here is relatively calm and bicycle and pedestrian access relatively easy.
Dudash Park	Yes	Bus stops are located several blocks north at the intersection of Wolff Avenue and Amboy Avenue.	No	Dudash Park is an underutilized open space in Edison. The entrance here is at grade and is the only point along the greenway with direct connection to a park. The park has sidewalks and bicycle racks, though is vastly empty. Improved bike and ADA access could be easily implemented here by paving the portion of the park that sits between May Street and the greenway.
Raymond Street	No designated parking. Residential street parking may or may not require permit.	Bus stops are located several blocks north near the intersection of Corrielle Street and New Brunswick Avenue.	Yes	Raymond Street is a primarily residential roadway that terminates at the greenway entrance. The greenway sits slightly below grade. Because there is no vehicular outlet on the southern end of Raymond Street, traffic here is relatively calm and bicycle and pedestrian access relatively easy. However, bike and pedestrian access along New Brunswick Avenue could be improved. The Raymond Street access point also connects to Hillside Gardens, an apartment complex in Fords. On this side, the greenway sits above grade. Access on the south side is for tenants only, through a large set of stairs, and is not ADA accessible.
Hillside Gardens	No designated parking. Parking at complex requires permit.	Because access is only provided from south of greenway, there is limited direct transit access.	No	This access point was installed by the owners/managers of Hillside Gardens, an apartment complex in Fords. As such, the entrance only allows access from the south. The greenway sits above grade here.

Wayfinding signage from nearby places to the greenway is mostly nonexistent. There is no indication along the main corridors, in business districts, or at transit stops that a greenway exists within walking and biking distance. The outreach process revealed that residents and stakeholders would like to see increased wayfinding signage from major thoroughfares and places of interest to the greenway. Additionally, there is interest in installing promotional signage on the greenway overpass over U.S. Route 1; however, installation awaits approval from NJDOT.

Marketing the greenway is important to fostering greater usage of the trail. The online presence of the Middlesex Greenway is limited to just a few social media accounts. The greenway's Facebook account has nearly 700 likes; however, the URL is long and difficult to remember, and posts on the page are sporadic. Content includes questions, construction photo updates, and occasional news articles. The Middlesex Greenway has a Twitter account (@MGrailtrail). Tweets match much of the content of the Facebook posts, but with only 11 followers, the Twitter account reaches far fewer people. The Middlesex Greenway also has a Yelp page, but does not have a presence on other social media outlets such as Instagram or YouTube.



Bicycle ramps at non-ADA accessible entrances are narrow

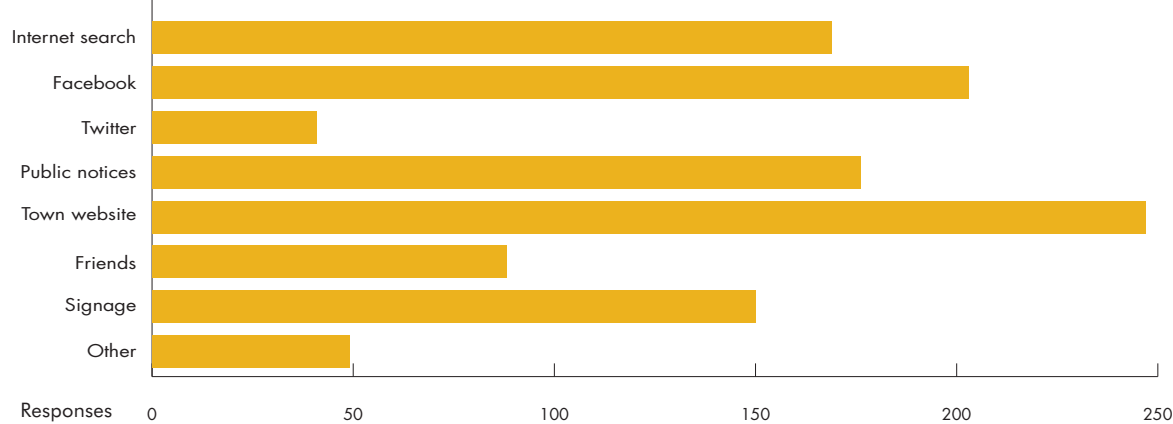


Liddle Avenue, a narrow roadway and hard-to-locate greenway entrance point, also used as a truck bypass

What We've Learned

- Users are interested in increased greenway digital presence on mobile devices and apps.
- Wayfinding along the greenway could be improved.
- Parking along the greenway is a challenge. Underutilized land near the Metuchen Trailhead could provide space for additional parking in the short term.
- Programmed, heavy usage of the trail should be coordinated with the county.
- Residents would like to see increased ADA accessibility.
- Users would like to see more restrooms accessible from the trail; Dudash Park is an option.
- Residents are interested in learning more about the greenway as an environmental resource through signage about animals and plants along the trail.
- Greenway users from the adjacent neighborhoods have created a number of informal foot paths to the trail.

Survey Question: In the future, how would you like to get information and updates about the greenway?



Woodbridge Avenue has narrow sidewalks



Informal access to the trail in Metuchen created by users

What We've Learned

- Several spots along the trail have a limited line of sight from nearby residential areas, fostering perceptions of crime and insecurity.
- To a limited extent, nearby schools leverage the greenway for its environmental and fitness benefits.
- There is an opportunity to better integrate the greenway into curriculum. However, educators prefer a curriculum that is packaged and readymade.
- Schools can inform parents of all of the available transportation options from home to school, but cannot necessarily advocate for use of the greenway due to potential liability issues.
- Safe Routes to School programs such as the walking school bus, in which a group of children walks in-line along with one or more adults, could be used along the greenway.
- The Common Core should incorporate programs and curriculum that take greater advantage of outdoor spaces and natural resources. At the same time, these resources can be incorporated into professional development and teacher training.

HEALTH IMPACT ASSESSMENT FINDINGS

In conjunction with development of this access plan, the New Jersey Health Impact Collaborative at Rutgers University conducted a health impact assessment (HIA). By combining scientific data, health expertise and public input, HIAs identify and assess the potential positive and negative health effects of decisions related to policies, programs or projects. The HIA considers a range of social, environmental and economic influences on health and places an emphasis on identifying groups who might be particularly vulnerable or disproportionately impacted. The HIA follows a six-step method that results in a set of recommendations and a monitoring plan.

The Middlesex Greenway HIA included reviewing background data and scientific literature, engaging stakeholders, and conducting an online survey of residents in surrounding communities, to both characterize the baseline health status and also project health impacts of increased use of the greenway for nearby communities. The HIA focused on these six questions:

1. How will increased greenway use affect physical fitness and mental health?
2. How will increased use of the greenway affect personal safety (crime and injury)?
3. How will increased use of the greenway affect environmental exposures to

allergens, animals, insects and air pollution?

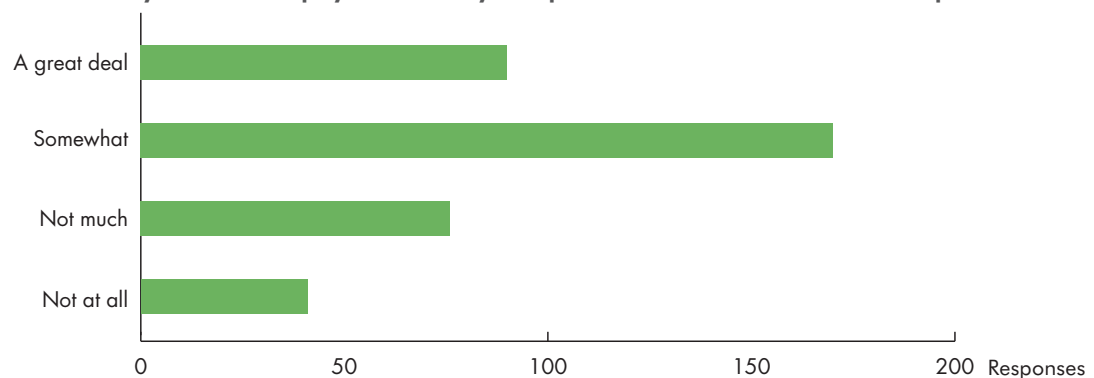
4. How will increased use of the greenway affect social cohesion?
5. How will increased use of the greenway affect the local economy?
6. How will particular subgroups in the community be disproportionately impacted from increased use of the greenway?

See the full HIA report in Appendix A for a complete description of all HIA phases, methodologies, findings and recommendations. A summary of key findings follows.

How does increased greenway use affect physical fitness and mental health?

Health statistics show that Middlesex County residents are slightly less physically active and have less access to recreational resources compared to the average county in New Jersey. Although survey data is not representative of the study area population, self-reported health of respondents was generally good, with 95% reporting personal health as “good” or better, and most reporting some regular exercise. However, more than four out of ten indicated that a physician had advised them to increase physical activity, and 10% reported suffering

Survey Question: How much do you think your use of the Middlesex Greenway has increased your level of physical activity compared to before the trail was in place?



from obesity. The greenway can play a significant role in improving physical fitness for regular users. About two-thirds of trail users surveyed reported that they use the trail most often for fitness. Importantly, evidence from the survey and other stakeholder engagement suggests that the greenway is providing new physical fitness opportunities and increasing physical activity, not simply changing its location or venue. About two-thirds of survey respondents reported that they are getting either a great deal (24%) or somewhat (45%) more physical activity since the greenway has been opened.

Strong scientific evidence exists for the benefits of physical activity in reducing obesity and associated diseases.

Studies have estimated the medical cost savings of physical activity at anywhere from \$615 to \$823 per year.¹ Even taking just the 90 people who reported in the survey that the greenway has increased their level of activity “a great deal” and multiplying by the more conservative \$615 yields a benefit of \$55,350 per year in medical cost savings. Of survey respondents who have not yet used the greenway, 77 (57%) said that they would

“probably” or “definitely” use it in the next year. If the same 24% of these 77 new users increase their activity a great deal, another \$47,355 in savings would be achieved, for a total of over \$100,000 in medical cost savings just among known and predicted users from our sample. Actual savings are likely to be many times this figure.

There is also a strong connection between exposure to the outdoors and improved mental health, particularly when it is shared as a social activity. The relative quiet and beauty of nature provides a refuge from everyday stressors, and social interaction builds a sense of community and combats loneliness. Increased use of the trail should result in improved mental health in the community.

How will increased use of the greenway affect personal safety (crime and injury)?

Despite a lack of reported crime, the fear of crime can deter some users from using the trail. Feedback from the outreach process suggests that many potential trail users, particularly women and elderly people, are fearful that the relative isolation of the greenway makes them vulnerable to physical attack or mugging. Six out of ten survey respondents said they would use

the trail more if they felt safer from crime. People also expressed concerns about being unable to quickly report their whereabouts for emergency response. If the access plan is successful in bringing more people to the greenway, the feelings of isolation should decrease and with more eyes on the greenway, any potential risk of criminal activity should also decrease.

Likewise, injuries from traffic crashes are a potential risk for greenway users. About one in four trail users in the survey expressed concerns about collisions and crashes, both on the trail and accessing the trail from nearby locations. However, if the increased trail traffic is well-managed, and both trail users and motor vehicles become accustomed to the volume and flow, evidence shows that the proportion of injuries and crashes can actually decrease with more users.²

How will increased use of the greenway affect environmental exposures to allergens, animals, insects and air pollution?

Survey results showed that close to one-third of trail users are concerned about encounters with animals, whether wild or perhaps a wandering pet. Public comments revealed

¹ Wang et al. (2005). A Cost-Benefit Analysis of Physical Activity Using Bike/Pedestrian Trails. *Health Promotion Practice*, 6(2), 174-179

² Pucher, J., Bueler, R. (2012). *City cycling*. Cambridge, Mass.: MIT Press.

concerns about mosquitoes, ticks and poison ivy, in particular. Although not a representative sample, 25% of those completing a survey reported suffering from allergies and 13% from asthma symptoms that could be aggravated by air pollution or allergens. Increased time outdoors will bring about more exposure to pollutants, pests and allergens, but there is no strong evidence from either literature or from local data collection that the increase in exposure would be significant or would outweigh the other physical health benefits.

How will increased use of the greenway affect social cohesion?

Almost one-quarter of survey respondents indicated that they would use the greenway more if there were more events. Also, a majority of users reported using the greenway with one to two other people. Clearly, gathering with others who are walking, jogging or biking along the greenway is preferred by many users. Strong evidence from literature links increased social interaction with a reduction in loneliness and increase in community cohesion that leads to improved mental health.

How will increased use of the greenway affect the local economy?

Some greenway users will purchase food or drink from local businesses as part of their trip to and/or from the greenway. Some may also purchase equipment (bicycle and related accessories, running shoes, etc.) from local businesses. Evidence from the survey suggests that about one-third of trail users buy drinks in conjunction with trail use, and 80% of these purchases are from local stores. Further, trail users reported making 244 purchases of equipment, with about half of the purchases from local stores. A study calculated the economic value of an average trail user ranging from \$23-38 per visit.³ Even if this value is high for a shorter and more localized trail like the Middlesex Greenway and is deflated to \$5 per visit, on average, the impact to the local economy can be significant. Survey respondents reported making an estimated 23,777 trips on the greenway in a year, which could amount to a boost of \$118,885 to local businesses. Assuming that the survey captured only a fraction of actual usage, and that the future will bring more users, the total annual economic value can reach easily near the

³ Bowker J, Bergstrom J, Gill J. (2007). Estimating the economic value and impacts of recreational trails: A case study of the Virginia Creeper Rail Trail. *Tourism Economics* [serial online]. 13(2):241-260. Available from: Scopus, Ipswich, MA. Accessed July 14, 2014.



NJ Turnpike overpass in Edison is poorly lit and has graffiti

What We've Learned

A typical Middlesex Greenway user:

- Is on the trail 2-3 times a month to 2-3 times a week.
- Stays on the trail for a half-hour to an hour.
- Walks, jogs, or bicycles.
- Has a goal of fitness or strolling.
- Is on the trail with 1-2 other people.

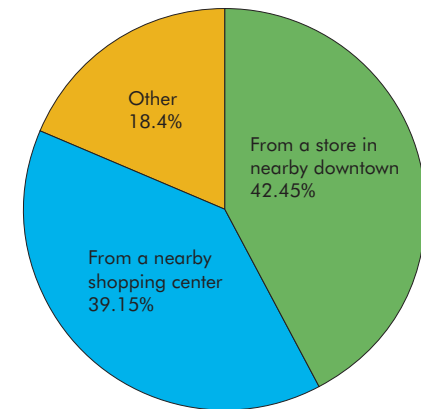
millions. More business for local shops and restaurants can increase employment and incomes and help to reduce stress. Further, evidence suggests that home values increase in proximity to greenways,⁴ which also leads to reduced stress levels and improved mental health. The downside of increasing land values is that if gentrification occurs, some lower income individuals and renters may face housing cost increases that drive them from the area.

How will particular subgroups in the community be disproportionately impacted from increased use of the greenway?

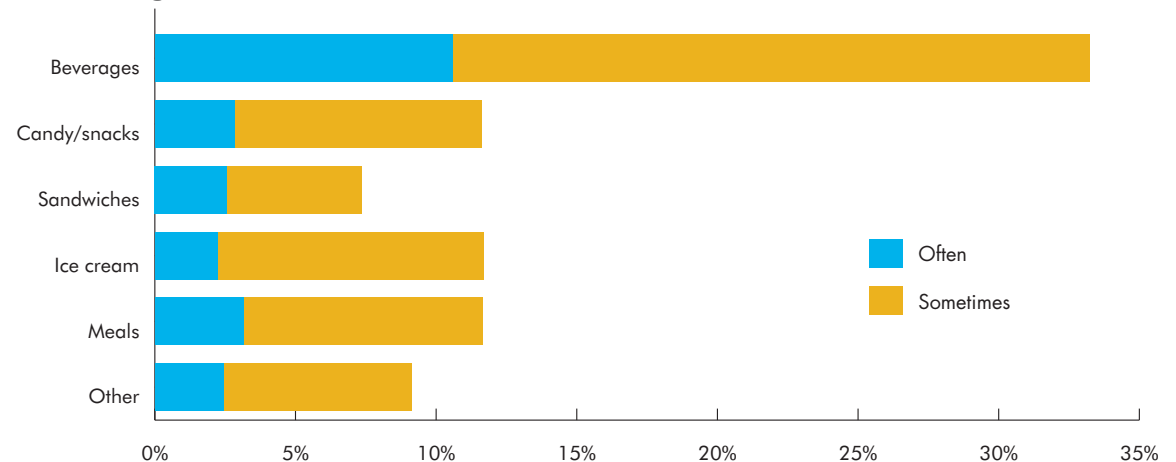
Vulnerable populations include those with existing health conditions or disabilities, the young and the elderly, and others with more limited ability to access or use the greenway because of poverty, ethnic or linguistic isolation or other constraints. Baseline analysis of the demographics in a half-mile radius from the trail shows a higher concentration of senior citizens over 75 years of age (16%) than in the three towns total (13%). Some live independently, but others live in one of the three senior living

facilities (one low-income) located within blocks of the greenway. Also, there is a higher proportion of disabled people (almost 11%) in close proximity to the greenway than the county average (8%). These subgroups can significantly benefit from access to a safe, flat, quiet place to exercise or to enjoy the outdoors.

Survey Question: Where do you typically purchase items in conjunction with your use of the trail?



Survey Question: In conjunction with your use of the trail, do you purchase any of the following?



⁴ Asabere, P. K., & Huffman, F. E. (2009). The Relative Impacts of Trails and Greenbelts on Home Price. *Journal Of Real Estate Finance And Economics*, 38(4), 408-419. doi: <http://dx.doi.org/10.1007/s11146-007-9089-8>



The greenway offers opportunities for fitness



Olsen Towers, a senior residential complex near the trail



Trash collecting near the greenway



Industrial uses may foster feelings of isolation along the trail

What We've Learned

- Litter and graffiti along the trail contribute to a perception of crime.
- Residents, including seniors, are hesitant to use the trail because of inadequate lighting and feelings of isolation.
- Senior citizens and others with mobility constraints could benefit from more benches on or near the trail. Given the narrow width of the trail, benches could be placed in strategic areas off of (but nearby to) the trail.
- The trail could accommodate additional trash receptacles.
- Users are concerned that stagnant water along the trail breeds mosquitoes. The County Mosquito Extermination Commission, however, regularly treats the area.
- Users feel unsafe at the NJ Turnpike underpass. The county expects to make improvements in this area to increase perception of safety and deter any undesirable activities.
- Perception of safety will continue to influence whether parents allow their children to use the trail.

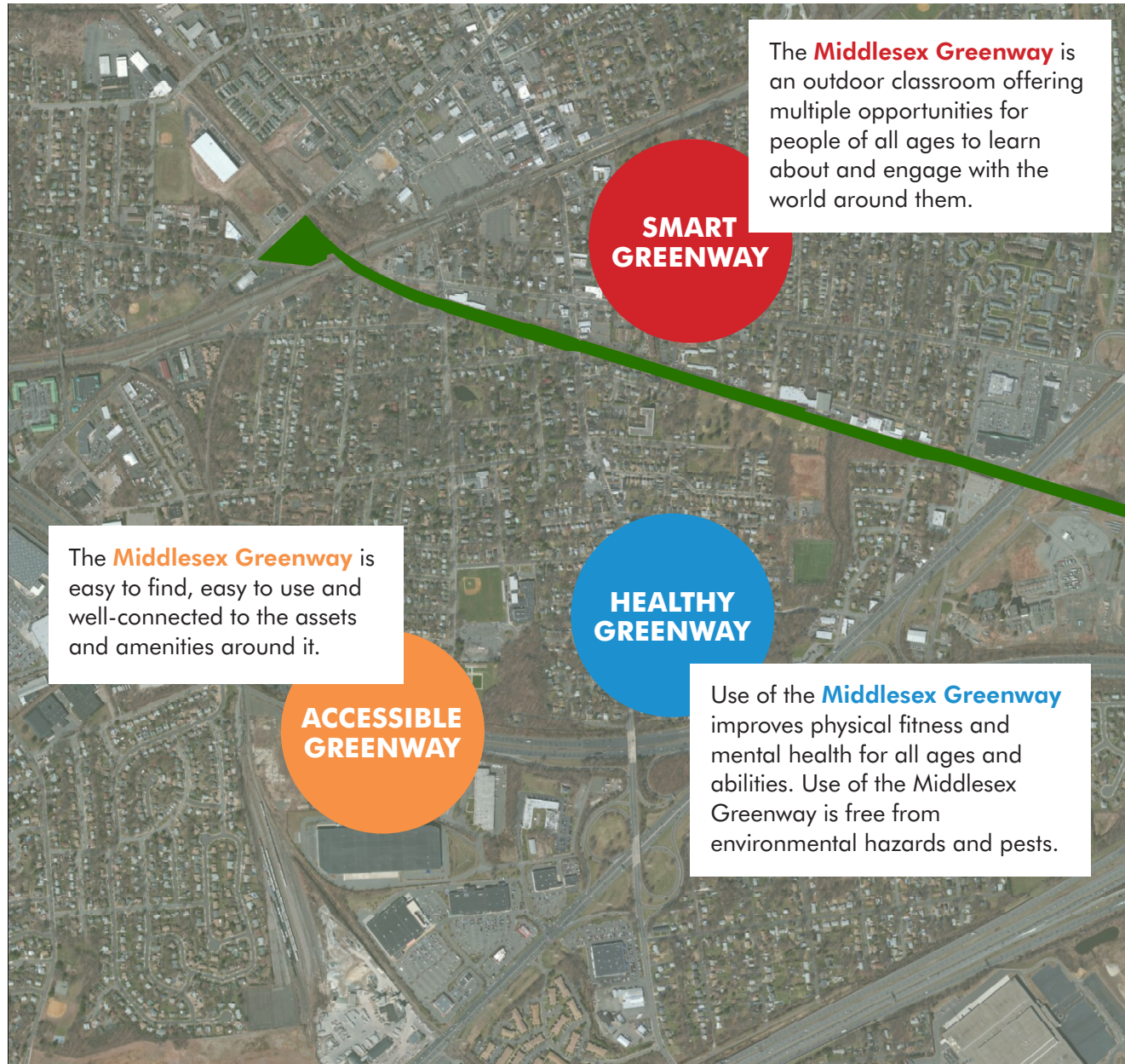
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PHASE 2: WHERE DO WE WANT TO GO?



MIDDLESEX GREENWAY VISION

Through a robust public process, stakeholders, residents, businesses, educators, youth, elderly and other interested members of the public have proposed a number of strategies to enhance the Middlesex Greenway. The following vision lays the groundwork for how to make the most of this valuable outdoor resource.



The **Middlesex Greenway** is an outdoor classroom offering multiple opportunities for people of all ages to learn about and engage with the world around them.

**SMART
GREENWAY**

The **Middlesex Greenway** is easy to find, easy to use and well-connected to the assets and amenities around it.

**ACCESSIBLE
GREENWAY**

**HEALTHY
GREENWAY**

Use of the **Middlesex Greenway** improves physical fitness and mental health for all ages and abilities. Use of the Middlesex Greenway is free from environmental hazards and pests.

An aerial photograph of a suburban area with a grid of streets, houses, and some commercial buildings. A thick green line, representing the Middlesex Greenway, runs diagonally from the bottom left towards the top right. Three colored circles (yellow, purple, and pink) are placed along this line, each with a text box. The background shows a mix of residential neighborhoods and major roadways with interchanges.

DESTINATION GREENWAY

The **Middlesex Greenway** is a well-known, well-maintained, shared amenity that is woven into the fabric of the community.

FUTURE GREENWAY

The **Middlesex Greenway** is part of a growing network of trails, connected to amenities throughout the region, that encourages shared stewardship and integrated planning.

SAFE GREENWAY

Use of the **Middlesex Greenway** is free from crime and perception of crime. Use of the Middlesex Greenway is free from crashes, collisions and injury risks.

GUIDING STRATEGIES

In order to achieve the Middlesex Greenway vision, this access plan puts forth recommendations across the six vision topic areas. The illustrative plan on page 49 shows proposed greenway enhancements that serve as a framework for the recommendations put forth. Bicycle and pedestrian-friendly activity loops will connect community destinations to the greenway, while offering enhanced fitness opportunities. Benches in strategic locations near access points will ensure that mobility-constrained populations living near the trail can still make the most of this outdoor resource. Access improvements will encompass both expansion of existing trail entrances to serve neighborhoods north and south of the trail, and creation of additional trail entrances. Bicycle and pedestrian improvements along the proposed activity loops will ensure that users do not need a vehicle to travel to the greenway. Nevertheless, shared parking opportunities can attract regional visitors to the trail. Finally, extension of the greenway and additional trail connections will ensure that the Middlesex Greenway is part of a regional network of outdoor parks and trails. Annotated versions of the illustrative plan can be found on pages 55 and 70.

The following guiding strategies address the illustrative plan and serve as a foundation for

implementing the recommendations put forth in this chapter.

Understand existing greenway usage

Greenway partners have some, but not necessarily thorough knowledge of how the greenway is being used today. The survey conducted as part of this local demonstration project offers insights into how the greenway is being used and can serve as a starting point to gather further information about trail usage. Stakeholders should track the following: counts, modes of transportation on the greenway and to/from the greenway, peak periods, slow periods, residence of users, and demographic and health characteristics of users. Developing a concrete baseline understanding of existing greenway usage will be helpful in prioritizing, funding and implementing the recommendations put forth.

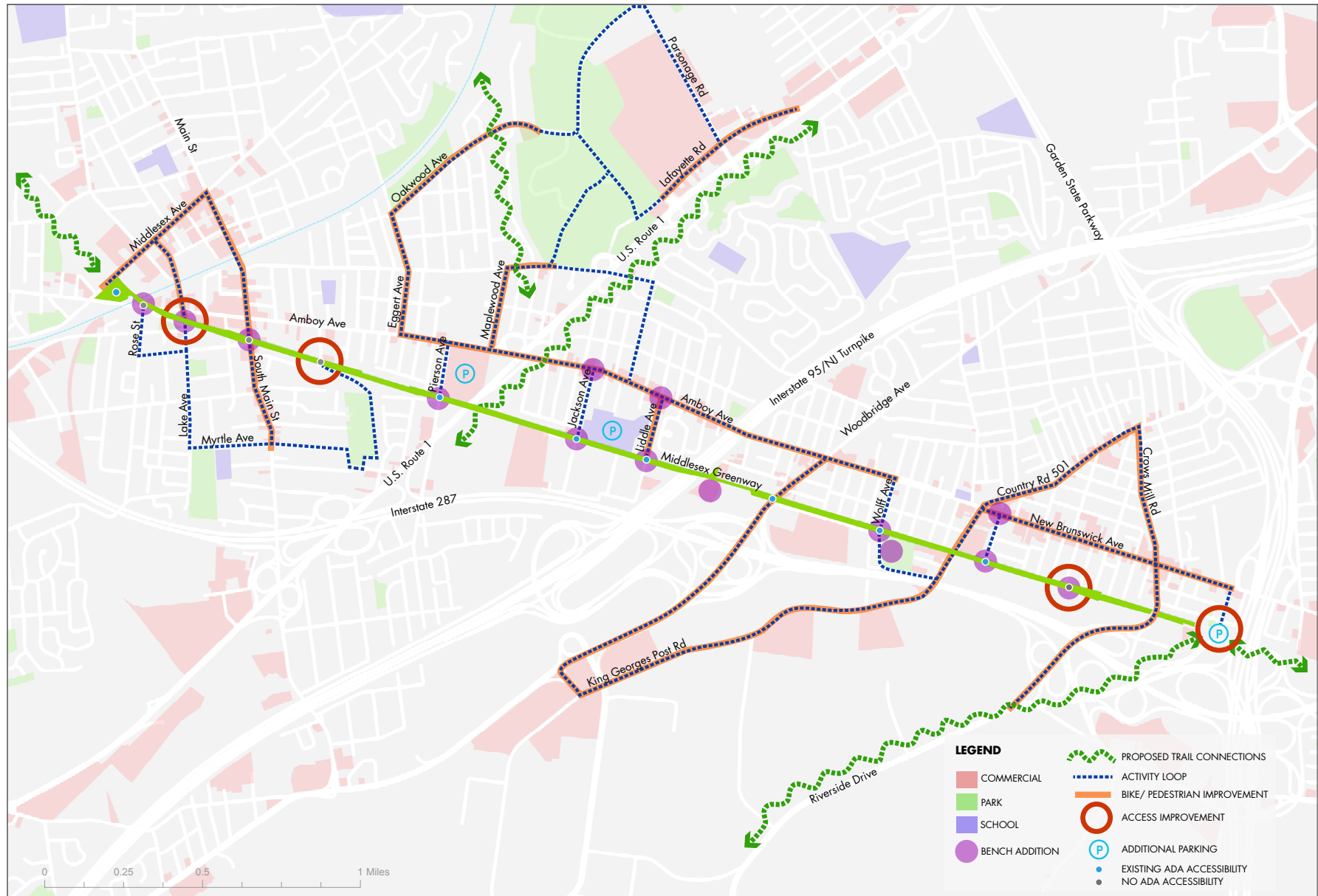
Coordinate with Middlesex County on programmed usage of the greenway by large groups

There is interest in programming the greenway for various uses; for example, a school gym class, after-school activities, or a fundraiser. Given the limited width of the trail, it is important that interested groups coordinate with the county on scheduling large-scale or programmed use of the

greenway. This can ensure optimal and communal usage of the shared outdoor resource.

Develop, implement and promote bike- and pedestrian-friendly activity loops

The illustrative plan on the following page proposes large-scale enhancements to the greenway. The bike- and pedestrian-friendly activity loops shown in this diagram connect the greenway to places of interest, including schools, parks, recreation centers, centers of employment, etc. These activity loops can be used for multiple purposes, including for exercise, local tourism, and as a general framework for planning enhancements to the trail and neighboring communities



Illustrative plan for the Middlesex Greenway. Annotated illustrative plans can be found on pages 55 and 70.

ACCESSIBLE GREENWAY

An accessible Middlesex Greenway is easy to find, easy to use and well-connected to the assets and amenities around it. While the greenway itself is a very walkable and bikeable corridor, the streets that connect to the greenway, such as Middlesex Avenue and Woodbridge Avenue, are not well suited for walking and biking. Activity centers near the greenway lack proper bike parking; similarly, vehicular parking lots near the greenway are limited to the Metuchen Trailhead and Dudash Park. Feedback from the outreach process suggests that signage and wayfinding – both to the greenway from adjacent streets and along the greenway – are inadequate. Additionally, results of outreach indicate that existing and potential greenway users would like to access more information and more frequent updates about the greenway through online and social media means. The following recommendations propose ways to make the Middlesex Greenway more accessible.

Enhance physical access to the greenway through bike and pedestrian improvements

Enhancing bicycle and pedestrian access to the greenway can mitigate the need for vehicular parking in the long term by encouraging those within a certain walk, bike, or transit shed to access the greenway by these alternative modes. Further, the

greenway could serve as a first- or last-mile connection when traveling to work. Major greenway connectors such as Amboy Avenue/ New Brunswick Avenue, King Georges Post Road and Woodbridge Avenue could benefit from bicycle and pedestrian enhancements. A cross-jurisdictional or county planning study should examine the potential for wider and better maintained sidewalks, streetscape enhancements, bicycle lanes, and shared lanes along these corridors. Similarly, as part of a larger Complete Streets program or bike/pedestrian initiative, municipalities should study safe multi-modal access along minor greenway connectors (largely local roads, such as Main Street in Metuchen, Liddle Avenue in Edison, and Crows Mill Road in Woodbridge). Middlesex County, the Borough of Metuchen and Township of Woodbridge have already adopted Complete Streets policies. This plan recommends that the Township of Edison also adopt a Complete Streets policy.

Results of community engagement suggest that bicycle usage could be better supported in the central business districts. A windshield survey validates that there are limited opportunities for bicycle parking in these major retail centers. To encourage greenway cyclists to frequent these retail areas, the municipalities, local businesses and chambers

should expand bicycle parking in places such as Downtown Metuchen, Tano Mall, Amboy Avenue in Clara Barton, and New Brunswick Avenue in Fords. This can be accomplished by completing an inventory and installing bicycle racks where necessary. Partners could consider piloting a surface parking spot for dedicated bicycle parking during off-peak hours. Bicycle parking should be incorporated into future development and redevelopment (such as along Pearl Street in Metuchen) and streetscape improvements near the greenway (including those along Amboy Avenue and New Brunswick Avenue).

Expand physical access through expanded vehicle parking

Expanded vehicular parking near the trail can attract regional visitors and encourage use of the greenway for large community events. Currently, dedicated greenway parking can be found at the Metuchen Trailhead and Dudash Park, as well as at Tano Mall to a more limited extent. However, there is an opportunity to expand vehicle parking through dual/flexible parking at Tano Mall and Herbert Hoover Middle School. Currently, just a few spaces are available near the Pierson Avenue entrance for trail users, yet surface parking at Tano Mall remains underutilized. Tano Mall store owners stand to benefit from Middlesex Greenway users parking near their

ACCESSIBLE GREENWAY

WHAT IT COULD BE

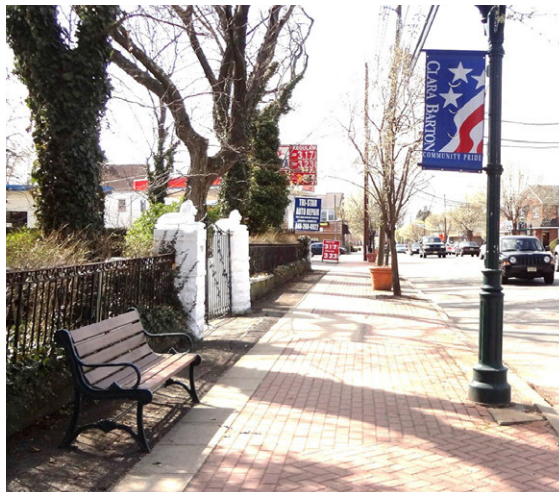


Opportunities for shared/flex parking

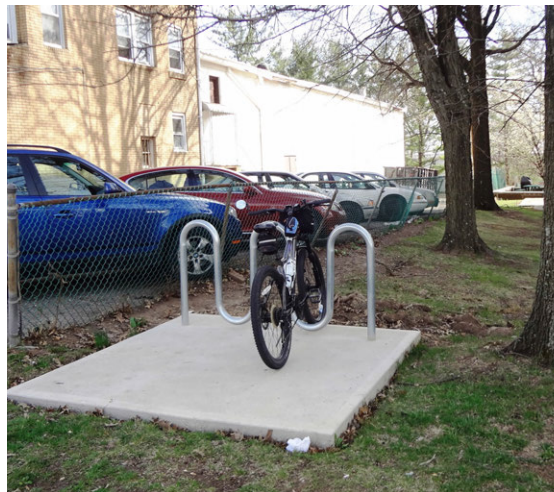


Credit: Flickr user Complete Streets

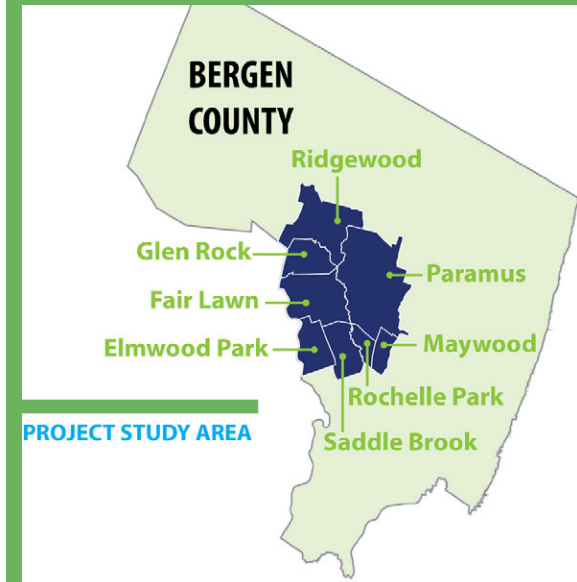
Bicycle lanes on suburban roadways



Streetscape enhancements could be implemented along a greater length of Amboy Ave/New Brunswick Ave



Trail entrances and business districts could benefit from additional bike racks, like the one pictured in Fords



Central Bergen Bike+Walk is a county and multi-municipal initiative, sponsored by NJTPA, to develop bicycle and pedestrian plans for the eight municipalities in central Bergen County. The plans will identify potential bike and pedestrian improvements for the eight municipalities and in particular, ways to create links between county/municipal roads, major destinations, and the Saddle River Path, a six-mile trail in Bergen County. A similar multi-jurisdictional effort could be conducted for the Middlesex County and the Middlesex Greenway municipalities. [Learn more at: www.centralbergenbikewalk.com](http://www.centralbergenbikewalk.com).

storefronts. Negotiating with property owners for flexible usage of parking at the mall will require collaboration between greenway supporters and these tenants. Herbert Hoover Middle School is a civic institution that neighbors the greenway; here, there are opportunities for flexible parking during hours when school is out of session. Finally, in coordination with the planned creation of a trail entrance at East William Street Park, Woodbridge and the county should explore opportunities for additional vehicular parking. Moving forward, future development and redevelopment near the greenway should incorporate flexible parking. This can be accomplished by marketing the benefits of this practice (greenway users can visit the shops near their parking location) or through developer incentives.

Enhance signage and wayfinding through structural means

Walkers, joggers, cyclists, drivers and others along the greenway should be able to easily identify where they are in relation to the neighboring communities. While each of the trail entrances has signage indicating the names of connecting streets, there is no signage in between trail entrances along the greenway. The county should consider replicating or retrofitting the existing mileposts along the greenway to reflect neighboring

street names. At existing trail entrances, the county may consider expanding upon existing signage or installing new signage that lists nearby points of interest, such as shops, parks, and transit stops along with the map of the entire greenway for reference purposes. Similarly, wayfinding and signage from points of interest to the greenway could be improved. County and municipal officials should work with transportation representatives to identify places where installation of directional signage would be most feasible. In particular, officials should consider enhanced signage along Amboy Avenue/New Brunswick Avenue and at bus stops. Finally, motorists could benefit from wayfinding signage that indicates location of parking adjacent to the trail.

Enhance digital wayfinding and marketing of greenway

Enhanced marketing of the greenway will ensure that the trail is not a hidden gem, but a well-known, well-used, connected and safe outdoor resource for all ages and abilities. A casual internet search reveals that information about the greenway can be difficult to find. Middlesex County and Edison Greenways should consider improved online navigation or redesign of their websites to ensure information is easily accessible. Website URLs should be short and easy to remember. Social

media offers a low-cost but effective way to circulate news and information about the trail. Existing social media accounts on Facebook and Twitter should be updated more frequently to reflect news about the greenway, community events, bicycle/pedestrian initiatives, and any other topics that relate to the trail. The greenway's social media reach should be expanded through Instagram, YouTube and mobile applications. Maps, photos, pamphlets and all other documents about the greenway should advertise these social media links. Further, utilizing the guidance provided in Appendix E, partners should strategically circulate the promotional videos created for this local demonstration project.

Tools like a logo and electronic press kit can support quick and easy promotion of the greenway. Middlesex County and Edison Greenways Group should explore inexpensive methods of logo development (for example a local school competition) and create a logo that integrates existing greenway design components (e.g. the trail entrance pillars and signage). Building off of the videos produced in conjunction with this local demonstration project, the county and Edison Greenways Group should develop an electronic press kit for the greenway that includes additional targeted, short clips to provide for public

ACCESSIBLE GREENWAY

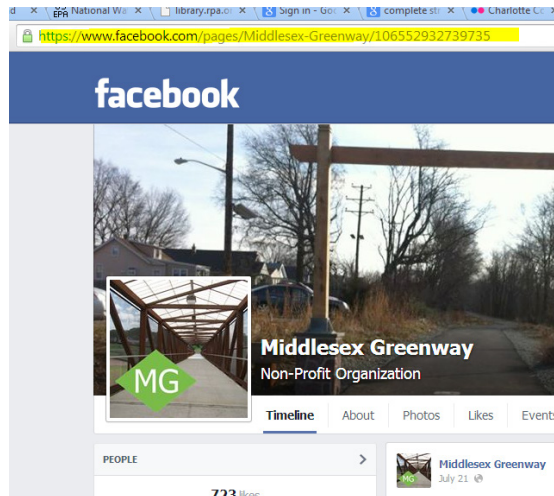
WHAT IT COULD BE



Signposts like the one pictured above could be placed more frequently along the trail to indicate adjacent street names



Build upon existing signage to indicate nearby attractions



Facebook URL could be shortened to www.facebook.com/middlesexgreenway



Consider wayfinding signage from transit stops

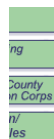


Credit: Flickr user San Francisco Bicycle Coalition

One car parking space can hold up to eleven bicycles. San Francisco has capitalized on this ratio by converting twenty-seven parking spaces into bicycle corrals – meaning they now have space for 336 bicycles to park while cyclists enjoy local businesses and activities. These corrals are usually filled to capacity, freeing up sidewalk space and keeping parked bicycles out of the path of pedestrians. The Middlesex Greenway communities could similarly pilot use of parking space for bicycle corrals. [Learn more at: sf.streetblog.org](http://sf.streetblog.org).

access television and local news stations. Stakeholders may even consider partnering with the area's hotels (such as the Marriott located adjacent to the greenway) to distribute maps and play the videos on hotel television channels. Similarly, greenway partners should collaborate with local institutions and businesses to disseminate information. For example, businesses could circulate maps and day-trip itineraries featuring the greenway and nearby attractions.

Given the Middlesex Greenway's proximity to the Metuchen rail station and bus stops along Amboy Avenue/New Brunswick Avenue, marketing via public transit could be a successful way to promote the greenway. This plan proposes that the county explore opportunities for advertising at the NJ TRANSIT bus shelters along Amboy Avenue/New Brunswick Avenue, at the Metuchen rail station, on the NJ TRANSIT bus lines that serve the area, or on the Northeast Corridor trains. While this option may be more costly than other marketing methods, it could be very effective in informing and attracting regional visitors. Similarly, greenway partners should continue dialogue with NJDOT on installing a Middlesex Greenway sign on the Route 1 overpass. As a major corridor, signage over the roadway could be effective in promoting the trail to regional visitors.



Location: Metuchen, Edison and Woodbridge

Size: 42 acres

Parking Area Address: Greenway Trailhead, Middlesex Avenue, Metuchen
GPS Coordinates: DMS 40° 32' 20.52" N; 74° 22' 6.61" W

Dudash Park, May Street, Edison Township
GPS Coordinates: DMS 40° 31' 35.12" N; 74° 19' 14.7"

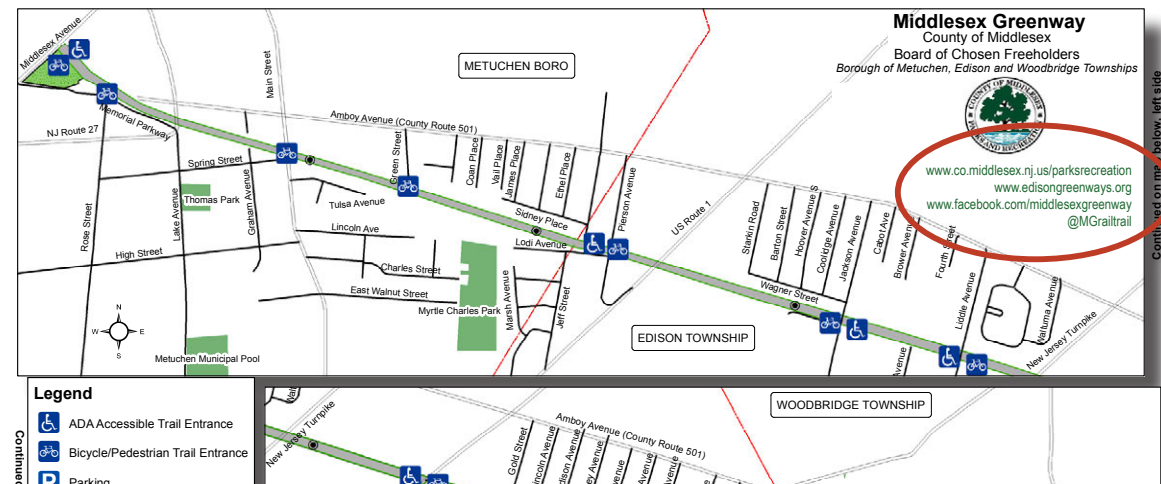
On-street parking is also available along the length of the Middlesex Greenway

The Middlesex Greenway is a **hidden** open space resource within the communities of Metuchen, Edison, and Woodbridge. Situated on an **abandoned** portion of Lehigh Valley this 3.5 mile long, 42-acre corridor was purchased by the County of Middlesex in 2002 as a rails-to-trails project for recreational use.

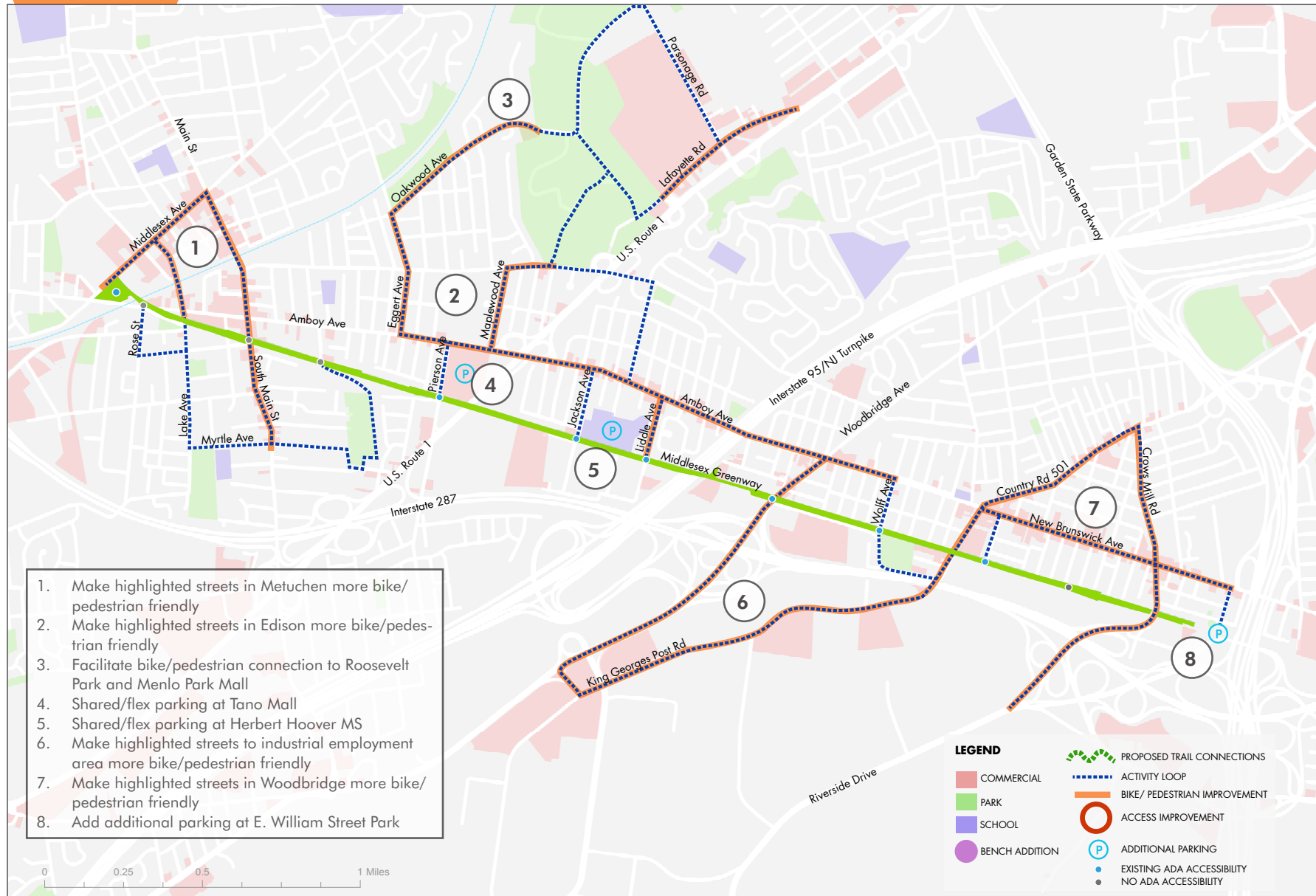
The Middlesex Greenway provides a 10-foot wide, paved trail suitable for walking, biking and jogging. Several fully accessible entrances provide access along the entire length connecting a diverse array of neighborhoods to area parks, schools and shopping.

The non-profit [Edison Greenways Group](#) was instrumental in the acquisition of the abandoned Lehigh Valley Rail corridor, bringing together local, county, state and federal agencies to secure this rail line for the M

Middlesex County Parks and Recreation website navigation could be simplified, while text can highlight greenway in a more positive and welcoming light. Replace "hidden" with "community" and "abandoned" with "historic".



Greenway maps and documents should include website URLs and social media handles



The illustrative plan highlighting activity loops, additional parking, and bicycle/pedestrian improvements

HEALTHY GREENWAY

Use of the Middlesex Greenway should improve physical fitness and mental health for all ages and abilities, and should be free from environmental hazards and pests. Traversing densely populated semi-urban communities crisscrossed with a heavily traveled network of roads and highways, the relative safety and serenity of a flat, paved 3.5-mile path offers an ideal opportunity for nearby residents to walk, jog or bike without cars zooming past, enjoying the outdoors while also exercising. The greenway offers varied health benefits including opportunities for improved fitness, reduction in obesity-related diseases and conditions, and stress reduction that results from both the natural beauty of the outdoors and from an enhanced sense of community. Results from the HIA suggest that the greenway is an important asset for physical fitness, but also that residents have some concerns about health risks from animals, insects and allergens. The following recommendations address how to maximize physical and mental health benefits for greenway users, and also minimize risks to health from environmental exposures.

Enhance usability and expand physical fitness options

To obtain maximum fitness and health benefits from the greenway, it should be designed and programmed to safely

accommodate a full range of non-motorized use options. Stairs or at-grade entrances at access points currently allow non-disabled walkers, runners and joggers easy access, but all access points should aim to accommodate people with disabilities through ADA-accessible ramps. The presence of rental stations, even temporarily on weekend or heavy use days, would encourage those who don't own bikes or rollerblades to rent them for day use. Exercise benefits can also be enhanced by promoting activity loops that include but extend beyond the greenway, particularly for bicyclists who desire a longer ride. Well-signed and accessible connections between the greenway and other nearby local parks (such as Dudash Park and Charles Myrtle Park) and corridors (East Coast Greenway) will promote more possibilities for users to both lengthen and diversify their trips, and also to consider other outdoor activities such as picnicking or playing sports. The three towns might consider installing exercise stations in close proximity to the trail and seeking local business sponsorship for the equipment. Edison Greenways and other local nonprofits can continue to encourage the formation of exercise groups and events to help to promote fitness and social interaction. Finally, use of the trail would be more conducive to varied uses with benches and picnic tables installed

in strategic locations to allow a place to rest, or to put on roller blades, for example. Benches within a comfortable proximity of the greenway (such as within a quarter mile) can ensure that the trail accommodates users of every age and level of stamina. Signs to indicate nearby restroom and refreshment locations may allow users to enjoy the trail for longer stretches of time, while supporting the local business district. While Middlesex County would need to oversee installation, the cost for benches, tables and signs could be underwritten by local sponsors. Results of engagement indicate that the public is supportive of installation of benches and exercise stations in order to increase greenway use and benefits.

Increase use and benefit by vulnerable subpopulations

The greenway's health benefits should extend to users of all ages and abilities, including vulnerable and traditionally disadvantaged populations. Vulnerable populations include those with existing health conditions or disabilities, the young and the elderly, and others with more limited ability to access or use the greenway because of poverty, ethnic or linguistic isolation or other constraints. For those with diagnosed health conditions that would benefit from regular physical activity, local health providers could prescribe use

WHAT IT COULD BE



Dudash Park could accommodate exercise stations and restrooms



Foster greater ADA accessibility in places lacking ADA access



Credit: Flickr user [opensource.com](#)

In a time when obesity, asthma, ADHD and depression are all prevalent issues in the United States, one Washington D.C. doctor prescribes nature to patients to help them fight disease. Dr. Robert Zarr has patients track their meals and activities throughout the day and prescribes exercise that fits the patient's lifestyle and neighborhood. In addition to weight reduction and increased sense of focus, patients have experienced an increased appreciation for nature. Middlesex Greenway area physicians could similarly prescribe use of the trail: Greenway Rx. Learn more at: blog.childrenandnature.org and www.healthit.gov.

of the greenway for weight reduction and overall health improvement. Assuring that all ramps are ADA-accessible will eliminate any barriers for use by those in wheelchairs or using other walking aids. Findings from engagement of senior citizens and disabled persons suggest that implementing chaperone programs would facilitate their use of the greenway. For example, young adults from local colleges could provide companions for seniors who need extra physical help to access or use the greenway. Benches would allow seniors and those with heart conditions to rest frequently. Efforts should be made to ensure that publicity about the trail is translated into Spanish, the top language for the LEP population, so that those who are linguistically isolated in these communities are aware of its location and features. Also, there is a train station and over 45 NJ TRANSIT bus stops located within a block of the trail, many within walking distance of trail access points. Facilitating better access and awareness by bus and train riders of the trail, through signage or pamphlets, could lead to more transit riders adding a walk on the trail to their trips, or using the trail as a route to or from home. For youth populations in the area, nearby schools, (particularly Herbert Hoover Middle School) could promote the greenway as both a safe route to school and also for fitness activities.

Enhance trail cleanliness and maintenance

A trail that is clean, free of litter and well-maintained creates a healthy environment for residents seeking enjoyment and health benefits. Trash strewn on or alongside the path can create odors or harbor insects or rodents that could aggravate users, in addition to being unsightly and thus discouraging use. There are no strong indications that lack of maintenance is a problem along this greenway, but members of the public suggested installation and regular emptying of additional trash and recycling cans, as well as dog refuse bags. More prominent “no littering” signs are a low-cost way to minimize littering, and local groups could organize cleanup days, or a more formal adopt-a-trail cleanup program, to foster voluntary trash pickup. Working together with the county maintenance crew, these efforts should go a long way toward keeping the trail as trash-free as possible. Forms of vandalism including graffiti can also visually disrupt the trail experience and cause distress, as reported by some members of the public in the engagement process. Through signage or public announcements, the county and local police or health departments could facilitate easy ways to report signs of vandalism or graffiti to proper authorities so that they can remove it.

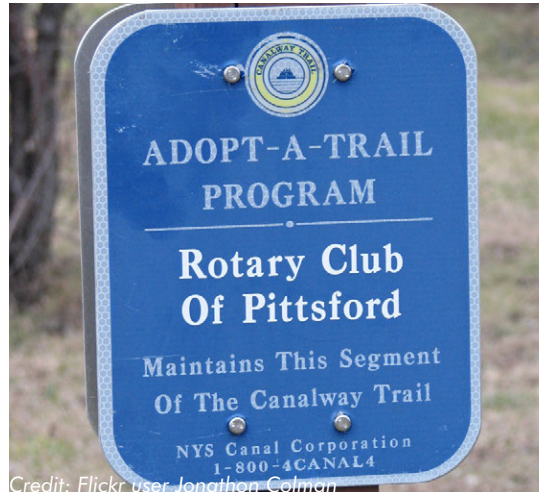
Minimize exposure to pests and noxious weeds

Vegetated paths that pass by backyards, parks and empty lots will expose users to potential hazards that can result in acute incidents (e.g. bites), diseases (Lyme disease) or allergic reactions (poison ivy). County parks and public works personnel should make every effort to improve drainage to reduce standing water where mosquitoes can breed, and continue its mosquito control program, being sure to notify users when treatments occur. The county, along with local health departments, could also monitor for presence of poison ivy and other noxious weeds close to the trail and add signage to educate users about mosquitoes, poison plants and ticks – how to identify them and guard against exposure. Continued periodic patrols for stray animals and quick response to reports of nuisance animals are also important strategies to prevent these negative impacts.

WHAT IT COULD BE



Provide dog refuse bags along the trail



Credit: Flickr user Jonathan Coleman
Consider an adopt-a-trail program



Organized walking groups have positive health and mobility benefits for elderly users and also allow time for socialization. In San Sebastian, Spain, a local club has taken over the role of organizing, promoting and planning walking excursions. To date, twenty different excursions have been organized. The number of people who have take part in each group is between 50 and 60, and as news of the initiative spread, even people who lived outside of San Sebastián began to join the walking groups. A similar initiative could be implemented for the Middlesex Greenway and especially at the senior living buildings, like the one in Fords pictured above. *Learn more at: www.eltis.org.*



Install additional trash cans along greenway



Reduce standing water along trail

SAFE GREENWAY

Use of the Middlesex Greenway should be free from crime and perception of crime, and from crashes, collisions and injury risks. While the local area police departments patrol the trail, feedback from the outreach process suggests that even without a single reported physical assault or attack, many women and elderly people have personal safety concerns and are fearful that the relative isolation of the greenway makes them vulnerable to physical attack or mugging. Likewise, accidental incidents pose injury risks for greenway users. Either en route to the trail or at places where the trail intersects a roadway, street design and crosswalks should be as safe as possible. Along the trail itself, bicyclists, joggers, people pushing strollers and people in wheelchairs are moving at different speeds and are at different levels of attention. Education for trail users about safety etiquette is important. The following recommendations address how to reduce both perceived and real crime, and to minimize accidental collisions and falls.

Improve feelings of security for greenway users

According to local officials and greenway advocates, there have not been any incidents of physical assault along the greenway since its opening. Continued local police patrol and response networks should ensure that

every effort is being made to minimize or prevent future incidents. Despite the lack of reported crime, fear of crime can deter some users, particularly women by themselves and the elderly, from using the trail. Additional police patrol rounds timed to specific user activity periods (such as after school dismissal or during senior group walks) may improve the safety perceptions of greenway users. Trail managers could consider additional locations for surveillance cameras and/or mock cameras that are marked by signs, and improved lighting at some darker locations (tunnels), or near more vulnerable populations such as the senior centers or schools. In places with dense vegetation, strategic pruning to create openings to views can help to reduce feelings of isolation. Exercise groups also have the benefit of bringing safety in numbers. A greenway watch program, modeled after successful neighborhood watch programs, could also bring additional eyes on the trail. Finally, additional “Where are you?” signs to indicate proximity to nearby intersections or landmarks would improve both the quality of response to any emergency calls, and trail users’ knowledge of their location and feelings of being prepared.

Minimize crashes and injuries along the greenway

Crashes and injury could occur along any

multiple-use trail, as bicycles could collide with walkers, or rollerbladers could collide with people pushing strollers. Additionally, where the greenway crosses two-lane or four-lane roads, collisions with motor vehicles could occur. An assessment of the safety of road intersections would help to prioritize locations for crosswalk improvements. Feedback from public engagement revealed that some residents need to travel on dangerous routes to access the trail, so crosswalk safety at intersections near trail access points and protected bicycle facilities should also be considered. Reducing potential collisions and injuries along the greenway path will require education and awareness of proper trail use (following the trail etiquette, staying to the right, yielding to pedestrians, etc.). For cyclists, defensive riding (giving the person warning you are passing, slowing speeds, obeying rules of the road, etc.) goes a long way toward making a trail ride a safe activity. Since the greenway will attract inexperienced trail users of all ages, trail guidelines are especially important. Widening the greenway path, where possible, would further reduce potential collisions. Regular trail monitoring and maintenance to address any areas with high drop-off height from paved trail to ground would also help to minimize falls and resultant injuries.

SAFE GREENWAY

WHAT IT COULD BE



Trail etiquette sign



Credit: Flickr user Dylan Passmore

Design trail intersections and roadways for safe, multi-modal usage



Credit: Flickr user sea turtle

Surveillance camera signage



Credit: Flickr user dave

A neighborhood trail watch began in Alaska in response to assaults on female joggers. The watch requires a strong community-based core to focus on keeping the trail safe and well maintained, using the Trail Watch website to submit public summaries of trail conditions and maintenance issues. A recent survey notes that 56% of respondents believe the trail has become safer due to Trail Watch volunteers and special projects. The Trail Watch volunteer roster has grown from fewer than 150 volunteers to nearly 500 in the seven years since the program's inception. While there are no reported incidents along the Middlesex Greenway, a trail watch may reduce feelings of isolation along the trail. Learn more at: www.nnw.org.

SMART GREENWAY

A smart greenway is an outdoor classroom offering multiple opportunities for people of all ages to learn about and engage with the world around them. Results of the education round table discussion and feedback from steering committee student representatives suggest that the greenway is used sporadically for classroom lessons and after-school programs. Nevertheless, educators would like to make greater use of outdoor resources in teaching, while parent teacher organizations (PTOs) are interested in leveraging the greenway for fundraisers and other school events. School administrators must be cautious in promoting the greenway as a means of transportation to school, but would support initiatives to foster safer usage of the trail by youth.

Support usage of the trail by local educational institutions

Primary and secondary school educators should incorporate more frequent use of the greenway and other outdoor resources into curriculum. The greenway is used infrequently for environmental science classes, but could also be utilized across other subject areas. For example, a history class studying the Industrial Revolution could explore the greenway as the former right-of-way of the Lehigh Valley railroad. An art class could visit the greenway for creative inspiration. Educators

should research readymade curriculum that leverages use of parks and trails in the field of study, or work with nearby higher education institutions or environmental groups to design new curriculum. Teacher training could bolster these curriculum changes by better instructing teachers how to conduct classes in an outdoor setting. In the longer term, educators should advocate for better integration of outdoor learning in the Common Core.

Outside of the classroom, students and school affiliates could use the greenway for after-school sports and clubs, for travel to and from school, for fundraising and philanthropic purposes, or for higher education research projects. Track teams and after-school running clubs in Metuchen, Edison and Woodbridge could take greater advantage of this 3.5-mile trail. PTOs may consider hosting a philanthropic walk or run to raise money. For programmed use of the greenway, schools should work with the county to schedule use and distribute liability forms to students.

Feedback from outreach suggests that parents are wary of allowing children to use the greenway alone or unsupervised. To support increased usage of the trail as a safe and healthy means of travel to school, educators and PTO representatives should partner with

Keep Middlesex Moving to organize more frequent walk and bike to school events, such as Walking Wednesdays, where students and parents walk and bike along the trail to school together. Innovative strategies used in Safe Routes to School programs, such as the walking school bus, can also be used along the greenway. The county may even consider working with willing, dependable residents or business owners near the greenway access points to establish safe havens along the trail.

Promote usage of the greenway by scouts

As an outdoor resource, community connector, and demonstration of sustainable practice, the Middlesex Greenway aligns well with the mission and projects of scouts and offers opportunities for youth involvement outside of the classroom. Feedback from outreach suggests that Girl Scouts and Eagle Scouts are interested in greater use of the greenway for scout projects. Examples of these projects include identifying and marking different plants along the trail and retrofitting existing mileposts to indicate adjacent street names. The county and partners should take advantage of this opportunity for greater youth involvement along the greenway and perhaps even develop a shortlist of potential projects that scouts can work on.

SMART GREENWAY

Promote usage of the greenway by environmental and other education groups

Outside of schools and formal educational institutions, there are a number of environmental groups - such as Edison Wetlands Association and those associated with Rutgers School of Environmental and Biological Sciences - in the area that can conduct projects along the greenway and promote trail usage. The county could develop a shortlist of projects where these groups can offer assistance as well as promote the greenway to these groups by highlighting trail benefits and shared sustainability goals.



Credit: Edison Wetlands Association

Edison Wetlands Association conducts tours of the Dismal Swamp for students



Foster greater use of the greenway by Herbert Hoover MS



Credit: Flickr user University of Salford Press Office

Consider utilizing a walking school bus for safe travel to school

WHAT IT COULD BE



Credit: Greater Newark Conservancy

The Greater Newark Conservancy (GNC) offers hands-on programs that meet state and national curriculum standards while using the environment as a means of multidisciplinary learning. Programs include creating a garden at school, monthly day-long outreach lessons, and day-long themed programs. GNC also offers Discovery Boxes (pictured above) to teachers: learning trunks readymade with one month's worth of lessons and materials. Edison Wetlands Association plays a role in environmental education in the study area and could expand upon current efforts by further incorporating the greenway in its educational tours, or creating discovery boxes for the Dismal Swamp and greenway. Learn more at: www.citybloom.org.

DESTINATION GREENWAY

A destination greenway is a well-known, well-maintained, shared amenity that is woven into the fabric of the community. With three business districts, nearly 2,000 businesses, over twenty parks, a train station, several bus stops, and many historical and cultural sites within one mile of the trail, there are opportunities to better connect the greenway to these attractions and leverage the trail for economic development purposes. Survey results indicate that greenway usage has impacted local business activity through purchase of bicycle and athletic equipment and food/beverages from nearby shops. Stakeholder feedback suggests, however, that many business owners are unaware that the greenway is within walking distance of their shops. Similarly, greenway users may be unaware of the existence of shops located within blocks of the trail. The Middlesex Greenway should not be an isolated recreation-only trail, but a multi-use resource that is integrated into the community and offers opportunities for local economic development.

Promote the greenway, nearby businesses and places as a local tourism destination

Situated in a historic area near three business districts and public transportation, there is an opportunity to build on the trail's proximity

to these amenities to foster local tourism. For example, the proposed pedestrian- and bike-friendly activity loops can also serve as tourism loops, connecting places of interest - such as transit stops, downtowns, major commercial centers, historic sites and parks - to the greenway. Greenway stakeholders, local chambers of commerce, business improvement districts and local government tourism agencies should collaborate to develop day-trip itineraries that build off of the proposed activity loops. These itineraries could be circulated in hard-copy to local businesses and information kiosks, or posted online to greenway, municipal, county, chamber, and tourism websites as well as social media platforms. A sample pamphlet can be found in Appendix N. With multiple hotels and conference centers nearby, the trail could also be promoted as a leisure amenity. A mobile application could integrate the day-trip itinerary on a user-friendly map for navigation and local tourism purposes.

Community fundraisers, festivals and events such as Junebug in Metuchen or the farmers market in Clara Barton offer opportunities for greenway-community partnerships. Building off of the inventory of events in Appendix C, stakeholders should identify opportunities where the greenway can sponsor or table to circulate promotional materials. By

incorporating the greenway into existing events, the trail can be an integral part of the community, rather than just a resource adjacent to it.

Leverage the greenway as an asset for economic development

Parks and trails are not only places for outdoor active and passive recreation, but are increasingly becoming drivers for economic development. In order to ascertain the Middlesex Greenway's full economic impact, an analysis should be completed that measures the trail's effect on real estate values and retail activity. Stakeholders should develop a marketing strategy that promotes redevelopment and attracts development of complementary uses. Infill development and occupancy of vacant storefronts can be promoted along the proposed activity loops. Future development near train stations and major bus stops should not only be transit-oriented, but should be greenway-oriented by connecting to the trail both physically, through signage and bicycle racks, and programmatically, through promotions or advertisement. All redevelopment and new construction should be required to be transit-accessible and provide bicycle and pedestrian amenities.

WHAT IT COULD BE



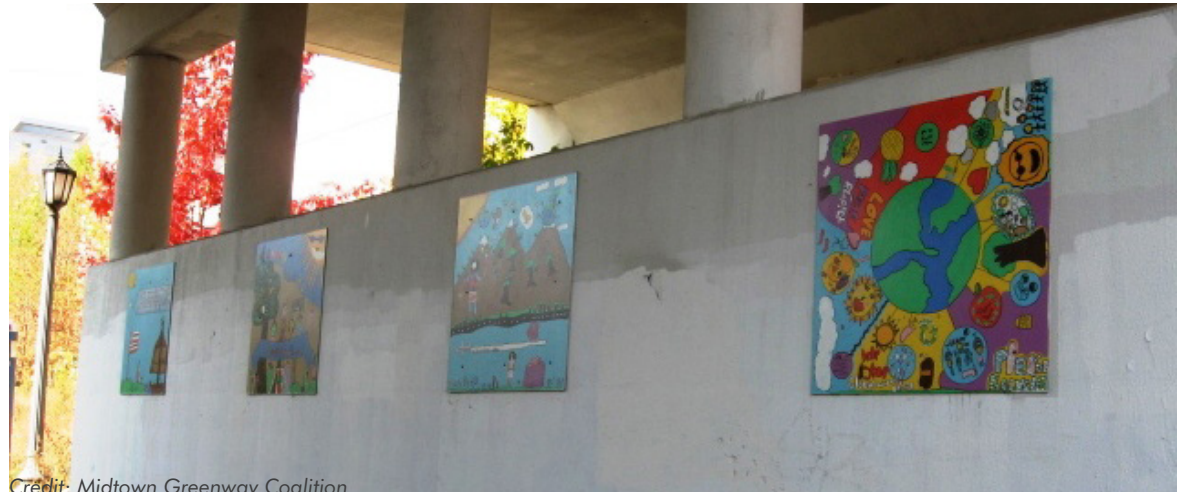
Credit: Flickr user Jon Dawson

The Trail Town Program is an economic development and community revitalization initiative to ensure that communities and businesses along the Great Allegheny Passage in Pennsylvania (a rail trail) maximize the economic potential of the trail. The program offers assistance in business development, real estate development, marketing to attract visitors to the region, and economic research to understand the trends in spending associated with trail usage. The Trail Town Program exemplifies how to leverage a community trail or greenway for economic development purposes. Middlesex Greenway partners could consider replicating a similar, smaller-scale model for the greenway communities, looking to the Trail Town Program for guidance. *Learn more at: www.trailtowns.org.*

Shown above, the Princeton Discovery Map creatively depicts Downtown Princeton in relation to neighboring communities, including nearby places: hotels, shopping centers, eateries, public transit stops, and historic attractions. A map or day-trip itinerary of the Middlesex Greenway could illustrate the greenway in relation to surrounding destinations.

Integrate art into the greenway

Art can be integrated into a public or outdoor resource in a number of ways, ranging from functional art - such as a creatively designed bench or landscape architecture - to musical performances near the greenway, sculptures, etc. Building on the case studies in Appendix D, stakeholders should identify best practices of art-trail integration and determine the community's level of comfort with various types of art. Day-trip itineraries could include nearby art venues and promote the greenway and neighboring communities as a local arts destination. Woodbridge and Perth Amboy are already actively pursuing arts-related programming; this should be marketed in conjunction with the greenway.



Credit: Midtown Greenway Coalition

The Midtown Greenway in Minneapolis features artwork, including murals along overpasses...



Credit: Midtown Greenway Coalition

...and functional art, like creative benches along the trail.

DESTINATION GREENWAY

Phase 2: Where do we want to go? 67

WHAT IT COULD BE



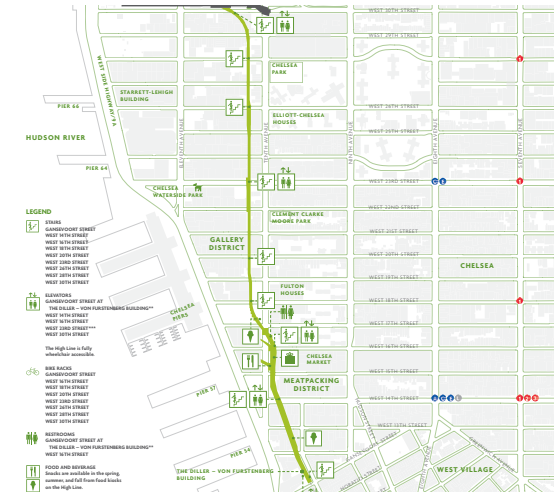
Better connect the greenway to downtowns



Link the greenway to community events



The greenway could be marketed as a leisure and fitness amenity, especially to guests at the nearby Marriott



This map of the High Line indicates nearby transit stops, attractions, and places for food and beverage.



East Coast Greenway Weekend Trip Planner: New York

Itinerary Four: Downtown Manhattan's Shoreline on Foot

Length: 12 miles. Estimated time to walk: 8.5 hours, including half an hour for lunch.

Level of difficulty: An easy, flat route.

Lunch: Picnic at Robert Wagner Jr. or Battery Park, or get take out from one of the many eateries in the nearby World Financial Center (www.worldfinancialcenter.com/dining). For a sit down meal, there are options in Robert Wagner Jr. and Battery Parks. For a later lunch, there are more possibilities at South Street Seaport.

Cautions: The southern portion of this trail can be very heavily used by walkers, joggers, inline skaters, and fellow cyclists, especially on weekends. As on all trails, it is advisable not to travel alone. Bring a cell phone.

Percentage of route on trail: 98% with the remainder on sidewalks. The East Coast Greenway Alliance is posting signs along the route in New York. Currently, NYC signage marks the route.

Trip Summary: This 12-mile walk takes you along the Hudson River, New York Harbor, and the East River on a waterfront pathway system now nearly complete around Manhattan Island. The walk down the lower West Side has a wonderful greenness and often feels far away from traffic and the hubbub of the City. Always hugging the Hudson, the route is dotted with old piers and some newly refurbished ones that accommodate a host of activities. **Battery Park City** offers several coves where visiting yachts may be seen and the Winter Garden, with a view down into Ground Zero. Historic **Battery Park** is a tourist hub where crowds gather to catch the ferry to the Statue of Liberty and Ellis Island.

The path along the **East River** is more industrial, but has spectacular views of the **Brooklyn Bridge** and a series of other East River suspension bridges. Stops at the **South Street Seaport** and a detour into the **Financial District** are recommended if time allows. At **East River Park**, sporting fields sandwiched between the FDR and the East River are alive with little leaguers and families picnicking, especially on the weekends. A walk across Midtown brings you to **Rockefeller Center** and then **Times Square**, exploding with monumental neon signs and packed with tourists all times of the year. End the tour at **Times Square** where many subways can be caught.



Bike Shops along the route

Bike and Roll (starting point)
557 12th Ave at 43rd Street
212-260-0400
www.bikeandroll.com

Liberty Bicycles
832 Ninth Ave between 55th & 56th Streets
212-757-2418
www.libertybikesny.com

Subways

Start: Subway lines A, C, E at 42nd and 8th Avenue

Return:
Subway line 1 at South Ferry
Subway lines 4 nd 5 at Bowling Green
Subways lines N and W at Whitehall Street/South Ferry
Subway lines A, C, and E at Times Square (42nd St. & 8th Ave.)

The East Coast Greenway website houses a number of itineraries for walkers and cyclists that include information on estimated time of trips, cautions, nearby attractions, and places for dining and shopping. Shown above is sample itinerary for Downtown Manhattan's shoreline. Middlesex Greenway partners could create a number of similar day-trip itineraries and advertise them online and with local businesses. Learn more at: www.greenway.org.

FUTURE GREENWAY

The Middlesex Greenway should be part of a growing network of trails – connected to amenities throughout the region – that encourages shared stewardship and integrated planning. The three Middlesex Greenway communities benefit from an existing framework of planning efforts and a robust and diverse network of partners. Unlike other strategies put forth in this plan, implementation of the below recommendations may require a timeframe of five or more years, but nevertheless strongly reflect local aspiration.

Expand access to and extend the greenway

In previous greenway planning efforts, officials have explored extension of the greenway to the Dismal Swamp in Edison and South Plainfield, and to Perth Amboy. The proposed greenway extension offers a number of benefits, including enhanced public transportation connections in Perth Amboy, access to the Raritan River waterfront, access to the Raritan Center employment center, and connection to the Dismal Swamp Conservation Area. This access plan recommends building off of the 2010 Middlesex Greenway Extension Plan to conduct more robust public outreach and planning to explore how to connect the extended greenway to the commercial

districts, employment centers, and transit stops around it. In terms of public outreach, partners should utilize a number of engagement methods, ranging from use of social media and online surveys to a pop-up workshop along the trail. Youth, elderly, and other traditionally underengaged populations should be an integral part of the public outreach process. In conjunction with the outreach process, Middlesex County officials, municipal officials and greenway partners should continue to engage Conrail on the possibility of acquiring the inactive rail right-of-way or getting an easement. In addition to extending the greenway, access can also be improved along the existing length of the greenway by expanding access points – Green Street and Hillside Gardens, for example – to serve neighborhoods both north and south of the trail. Plans are already underway to create access at Lake Avenue in Metuchen as well as enhance access in Fords through construction of a trail entrance at East William Street Park.

Develop connectors to local and regional parks, trails, open spaces and neighborhoods

The greenway is a multi-community resource that should be part of a larger regional network of trails and open spaces. A portion of the Middlesex Greenway is already part

of the existing East Coast Greenway (ECG) route; the future proposed route of the ECG will comprise the full extent of the Middlesex Greenway. This plan supports continued collaboration between Middlesex Greenway stewards and the East Coast Greenway Alliance to implement a connection to the proposed future route of the ECG, to promote this trail not only as a community resource, but a regional resource.

The Middlesex Greenway is proximate to a number of regional destinations along Route 1, such as Roosevelt Park, Menlo Park Mall and Woodbridge Center Mall. However, as a heavily auto-oriented corridor, Route 1 presents mobility barriers for those on foot or bicycle. Stakeholders expressed interest in connecting the greenway to these and other destinations along Route 1 via PSE&G-owned utility right-of-ways in Edison. This plan proposes that greenway partners conduct a planning study on the use of these right-of-ways as bicycle and pedestrian trails, while coordinating with PSE&G on an easement and lease agreement. Stakeholders should engage PSE&G not only as the owner of these right-of-ways, but as a neighbor to and potential corporate partner of the greenway.

FUTURE GREENWAY

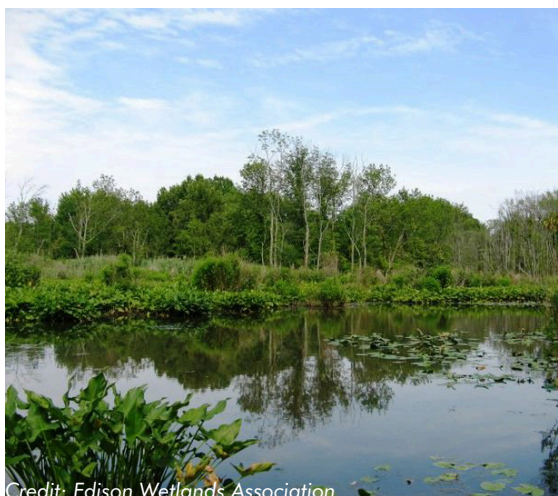
Facilitate collaborative, regional partnerships to plan for the future use and stewardship of the greenway

The Middlesex Greenway benefits from a strong collaborative network of supporters and advocates. Edison Greenways, the primary non-profit group that supports trail initiatives and improvement efforts, could be further bolstered as the stewardship organization of the greenway. Building on the case studies of trail stewardship non-profits in Appendix D, this plan proposes that Edison Greenways explore different business models as well as models for the most effective means of government-non-profit collaboration. The vision is to bolster Edison Greenways as an organization that can hire additional staff or consultants to conduct marketing of the greenway, launch a capital or major gifts campaign, establish relationships with nearby employers, and coordinate maintenance of the greenway.

With several greenway and trail initiatives in the region (including the Henry Hudson Trail and Morris Canal Greenway project), there are opportunities to learn from as well as advise multiple regional partners. Middlesex Greenway advocates should continue collaboration through the East Coast Greenway Alliance, and with each other to ensure implementation of the shared vision.



Greenway extension could link east to Perth Amboy waterfront



Credit: Edison Wetlands Association

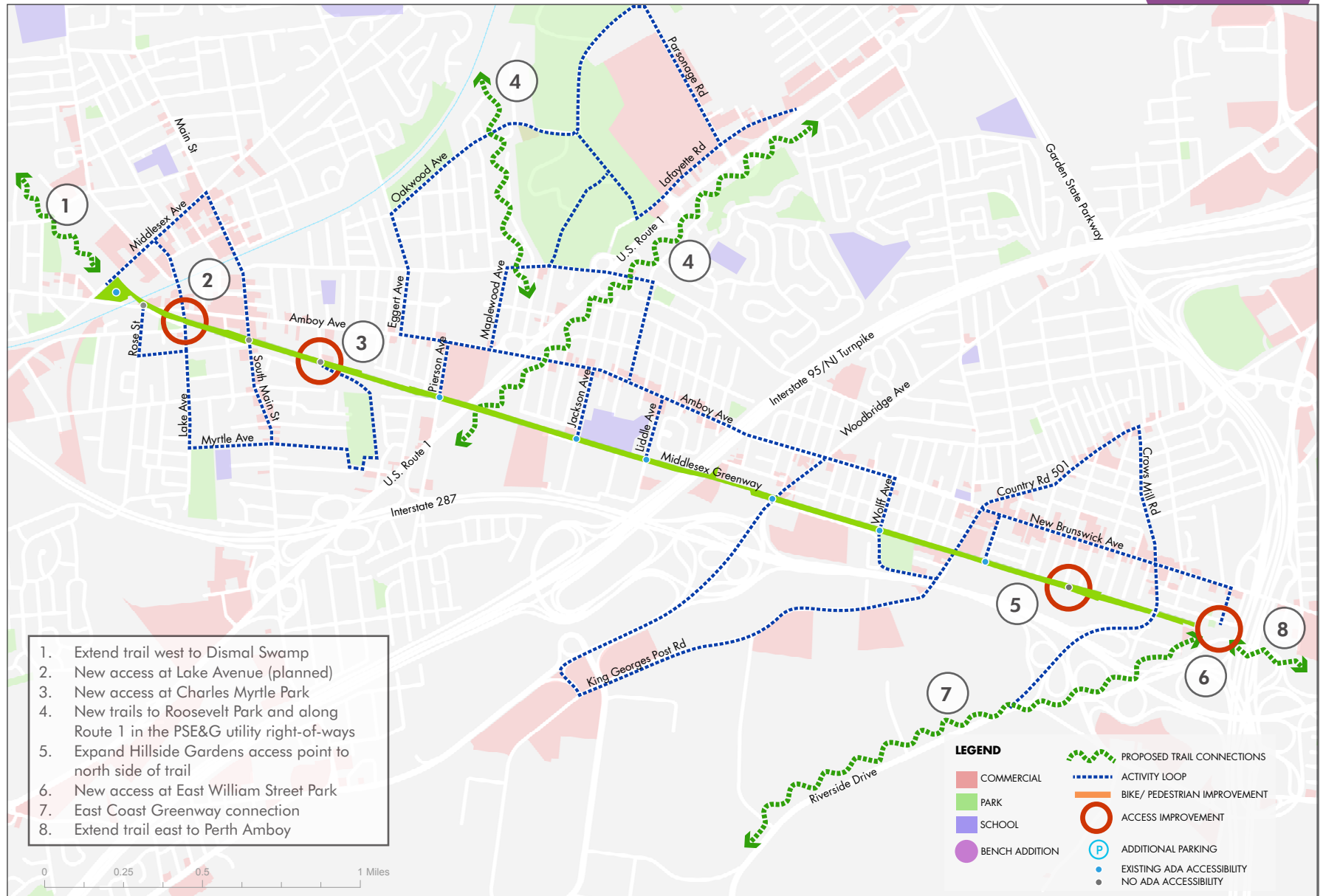
Greenway extension could link west to Dismal Swamp

WHAT IT COULD BE



Courtesy of West Windsor Bicycle and Pedestrian Alliance

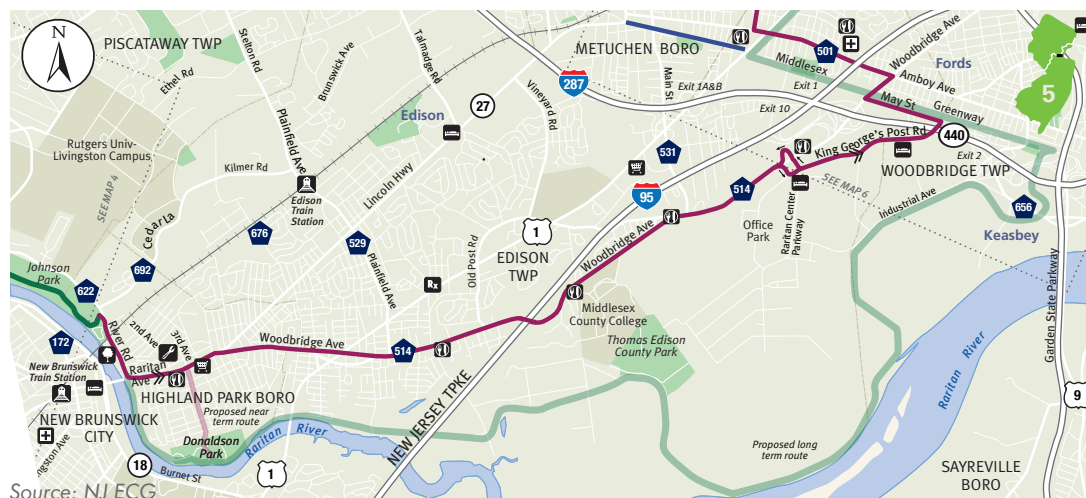
The Trolley Line Trail is a 2.5-mile paved trail in West Windsor that passes through West Windsor Community Park - which features athletic fields, picnic facilities, swimming pools, dog parks, and a skateboard park - residential areas, wetlands, and Big Bear Brook. Formerly a fast line electric trolley right-of-way, the trail now sits beneath PSE&G utility lines. Middlesex Greenway partners should engage PSE&G on the potential for bicycle and pedestrian paths along Route 1 in Edison under the utility right-of-ways, citing the Trolley Line Trail as a successful local precedent. See Appendix N for necessary documents and learn more at: www.wwbpa.org.



The illustrative plan with proposed trail connections, activity loops and long-term access improvements at trail entrances

FUTURE GREENWAY

WHAT IT COULD BE



Source: NJ ECG

Proposed future alignment of the East Coast Greenway along Industrial Avenue and the Raritan River

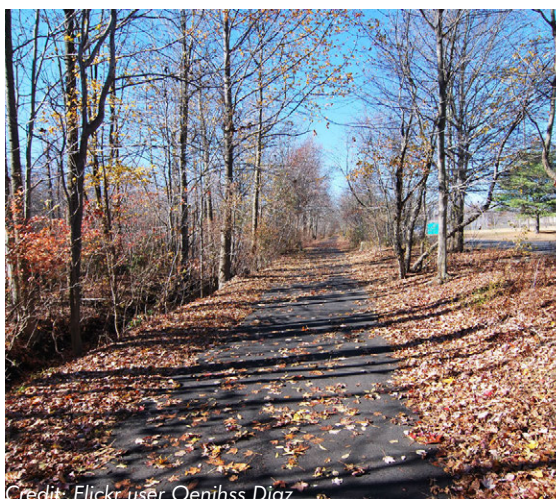


The Brooklyn Greenway Initiative (BGI) is the primary non-profit steward of the Brooklyn Waterfront Greenway. What began as a volunteer task force now comprises eight full-time employees working on greenway maintenance, programming and sponsorships. Guided by a ten-person board of directors and funded by various levels of membership, BGI benefits from support across a broad range of sectors, including government, advocacy groups, business partners, and landowners. Today, BGI coordinates donations and volunteer initiatives, including an adopt-a-greenway program. Middlesex Greenway partners should bolster Edison Greenways Group to undertake similar activities and expand its role as the non-profit steward of the trail. [Learn more at: www.brooklyngreenway.org](http://www.brooklyngreenway.org).



Source: NJTPA

Potential route of Morris Canal Greenway



Credit: Flickr user Oenihss Diaz

Henry Hudson Trail

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PHASE 3: HOW DO WE GET THERE?



IMPLEMENTATION

Now and in the future, the greenway should be a model for collaboration, stewardship and sustainability in the region. The Middlesex Greenway benefits from a strong, existing network of supporters and partners. Implementation of recommendations put forth in this access plan will require continued partnership between stakeholders and continued public engagement. Middlesex County, as the owner of the resource, and Edison Greenways Group, the primary non-profit advocate for the resource, cannot be the sole implementing partners of these recommendations. Municipal representatives, bike/ped organizations, transportation providers, small businesses, large employers, health officials, community organizations and residents will need to stay involved to achieve an accessible, safe, healthy, smart, destination and future greenway. The plan implementation agenda that begins on page 75 offers objectives, strategies, actions, lead implementing partners and actors to advance this vision.

Implementation timeline

Short	3-6 months
Medium	6-18 months
Long	18+ months

● ● ● Indicates objectives prioritized at June open house



Strategies	Actions	Timeframe	Lead Partner	Actors
Enhance physical access to the greenway through bike and pedestrian improvements ●●●				
Resources/Sources of Funding: NJTPA, NJDOT Bicycle & Pedestrian Planning Funds, NJ Bicycle & Pedestrian Resource Center, Property Owners, Business Owners				
Plan and implement bike and pedestrian improvements along main thoroughfares including CR-501, CR-616, CR-514, and King Georges Post Road	Conduct a planning study on the potential for bike and pedestrian improvements along major thoroughfares, including bike lanes, shared lanes, and wider, better maintained sidewalks	Medium	MC Planning	Middlesex County Planning, Middlesex County Transportation, Middlesex County Engineering, Borough of Metuchen, Township of Edison, Township of Woodbridge, NJTPA, NJ Department of Transportation
	Secure funding	Medium	MC Planning	
	Implement improvements	Long	MC Transportation	
	Adopt or implement Complete Streets policy (Edison)	Long	Edison Planning Department	
Enhance bike and pedestrian accessibility on local/other roadways that connect to the greenway and transit stops	Conduct a planning study on the potential for bike and pedestrian improvements along local roadways, especially those that connect to greenway access points	Short	Local Planning Departments	Borough of Metuchen, Township of Edison, Township of Woodbridge
	Secure funding	Long	Local Planning Departments	
	Implement improvements	Long	Local Transportation Departments	
Expand availability of secure bicycle parking at key destinations including commercial districts, schools, transit stops, parks along the greenway, etc.	Inventory bike racks and bike parking availability in downtown and commercial districts, access points near the greenway, near schools, near transit stops, and at centers of employment	Short	Local Planning Departments	Middlesex County Planning, Borough of Metuchen, Township of Edison, Township of Woodbridge (ABC Committee), Keep Middlesex Moving, Bike/Walk Metuchen, Chambers of Commerce, Property Owners, Developers, NJ TRANSIT
	Install bike racks in key places based on inventory	Medium	Local Planning Departments	
	Pilot use of a surface vehicle parking spot for bike parking during off-peak hours	Short	Municipal Parking Authorities	
	Encourage or incentivize developers to incorporate increased bike parking in new developments	Long	Local Planning Boards	
Enhance physical access to the greenway through expanded vehicle parking				
Resources/Sources of Funding: Property Owners, Business Owners				
Expand parking space by encouraging dual/flex parking space for local business/institutional use and greenway use	Work with Tano Mall tenants (highlight potential for increased customer base) to negotiate with Tano Mall property owners on use of underutilized surface parking space for greenway parking	Short	Edison Greenways Group	Middlesex County Parks and Recreation, Edison Greenways Group, Tano Mall Tenants, Tano Mall Property Owner, Herbert Hoover Middle School Administration, Edison Board of Education
	Coordinate with Herbert Hoover Middle School to use parking space for greenway parking during off-peak hours	Short	Edison Greenways Group	
Incorporate dual/flex parking strategies into future development and redevelopment near the greenway	Encourage developers to incorporate dual/flex parking for greenway users by highlighting benefits (increased customer base) or through incentives	Long	Local Planning Boards	Borough of Metuchen, Township of Edison, Township of Woodbridge, Chambers of Commerce, Middlesex County Economic Development, Middlesex County Planning
	Adopt a policy that encourages or incentivizes dual/flex parking	Long	Local Planning Boards	

Strategies	Actions	Timeframe	Lead Partner	Actors
Enhance signage and wayfinding through structural means				
Resources/Sources of Funding: NJ Travel & Tourism Cooperative Marketing Grant, NJ Historic Trust Garden State Historic Preservation Trust Fund, Middlesex County Open Space Trust Fund, Private Partner Sponsors				
Enhance signage and wayfinding along the trail	Secure funding for signposts (use design of existing mileposts) on the greenway that indicate names of adjacent streets	Medium	Edison Greenways Group	Middlesex County Parks and Recreation, Edison Greenways Group
	Install signposts or retrofit existing mileposts to reflect street names	Medium	MC Parks & Recreation	
Enhance signage and wayfinding to trail from key community places and transit stops	Consider redesign of greenway map to make access points easier to find in relation to nearby public transit and places of interest	Short	MC Parks & Recreation	Middlesex County Planning, Middlesex County Transportation, Middlesex County Engineering, Middlesex County Parks and Recreation, Borough of Metuchen, Township of Edison, Township of Woodbridge, NJ TRANSIT
	Identify places where installation of bike/pedestrian and vehicle parking directional signage would be most feasible (such as along Amboy Avenue near trail access points or near bus stops)	Short	MC Planning	
	Design signage that reflects the Middlesex Greenway logo	Medium	Edison Greenways	
	Secure funding	Medium	MC Parks & Recreation	
	Install signage	Medium	Local Engineering Departments	
Enhance digital wayfinding and marketing of greenway				
Resources/Sources of Funding: NJ Travel & Tourism Cooperative Marketing Grant, NJ Historic Trust Garden State Historic Preservation Trust Fund, Middlesex County Open Space Trust Fund, Chambers of Commerce, Area Schools, Private Partner Sponsors, NJ Trails Association, Volunteers				
Enhance social media presence of greenway (website, online navigation, video, etc.)	Enhance navigation on existing webpages to make information easier to find, or consider website redesign	Short	MC Parks & Recreation, Edison Greenways Group	Middlesex County Parks and Recreation, Edison Greenways Group, Steering Committee Members
	Advertise Facebook webpage, Twitter handle, and other existing social media pages at all events and on all photos, maps, documents, videos, etc.	Short	Edison Greenways Group	
	Create accounts/pages/handles on other social media platforms, such as YouTube and Instagram	Short	Edison Greenways Group	
	Circulate Middlesex Greenway video on social media platforms (see Appendix E for further guidance)	Short	Edison Greenways Group	
	Post updates more frequently on the greenway, related articles, and events using social media (e.g. daily updates on Twitter)	Short	Edison Greenways Group	
Develop a logo for the greenway	Explore creative methods to develop logo, including a school competition or artists competition	Short	Edison Greenways Group	Middlesex County Parks and Recreation, Middlesex County Planning, Edison Greenways Group, Schools, Artists
	Explore ways for the community to weigh in on logo design, such as public voting	Short	Edison Greenways Group	
	Create logo that integrates existing design components of greenway, such as entrances	Medium	Edison Greenways Group	
	Use the logo on social media, photos, maps, documents, videos, signage, etc. to foster a brand for the greenway	Medium	Edison Greenways Group	

ACCESSIBLE GREENWAY

Strategies	Actions	Timeframe	Lead Partner	Actors
Develop an electronic press kit for the greenway (including videos)	Work with a video producer to develop targeted, short clips to provide to public access television, local news stations and hotel TV channels, amongst others	Short	MC Parks & Recreation	Middlesex County Parks and Recreation, Edison Greenways Group, Middlesex County Regional Chamber of Commerce, Middlesex County Cooperative Extension, Metuchen Chamber of Commerce, Edison Chamber of Commerce, Woodbridge Metro Chamber of Commerce, New Brunswick Avenue SID, Local Businesses
Partner with local institutions and businesses to disseminate information about the greenway	Circulate maps and day-trip itineraries that contain information about the greenway, including on social media webpages	Medium	Edison Greenways Group	Middlesex County Parks and Recreation, Edison Greenways Group, Middlesex County Regional Chamber of Commerce, Metuchen Chamber of Commerce, Edison Chamber of Commerce, Woodbridge Metro Chamber of Commerce, New Brunswick Avenue SID, Local Business Owners, Middlesex County Economic Development, Middlesex County Cultural and Heritage Commission
Leverage public transit to advertise the greenway	Research opportunities for advertisements at NJ TRANSIT train stations and bus stops, particularly Metuchen train station and bus shelters along Amboy Avenue	Medium	Edison Greenways Group	Middlesex County Parks and Recreation, Edison Greenways Group, NJ TRANSIT, Borough of Metuchen, Township of Edison, Township of Woodbridge
	Secure advertising space and funding	Medium	MC Parks & Recreation	
Install promotional signage on the U.S. Route 1 greenway overpass	Continue dialogue with NJDOT on installing signage, noting similar precedents (such as the Delaware and Raritan Canal State Park sign in Lawrence Township)	Short	MC Parks & Recreation, MC Planning	Middlesex County Parks and Recreation, Middlesex County Planning, Edison Greenways Group, Township of Edison, NJ Department of Transportation
	Design and install sign	Medium	MC Parks & Recreation	
	Continue to maintain sign	Long	Edison Greenways Group	

Strategies	Actions	Timeframe	Lead Partner	Actors
Enhance usability and expand physical fitness options ●●●				
Resources/Sources of Funding: NJDOT Local Municipal Aid, Federal Transportation Alternatives Program, Federal Recreational Trails, NJTPA, Private Partner Sponsors, Corporate Giving, NJDEP Green Acres, BIDs/SIDs, Middlesex County Open Space Trust Fund, NJDOH Small Community Grants, NJDOT Pedestrian & Bicycle Planning Funds, Volunteers				
Improve access and use for bicycles	Improve/widen bike side-ramps with anti-skid surfaces, where possible, alongside stairs	Medium	MC Parks & Recreation	Middlesex County Parks and Recreation, Middlesex County Improvement Authority, Local Chambers, Municipal Public Works, Bike Walk Metuchen, Woodbridge ABC Committee, Edison Greenways Group, NJ TRANSIT, Keep Middlesex Moving
	Provide/improve secure bicycle parking	Medium	MC Parks & Recreation	
	Consider bike repair and air fill kiosks	Medium	Edison Greenway	
	Install new access ramps at strategic access points where feasible	Long	MC Parks & Recreation	
Consider rental stations for bikes and rollerblades	Assess which local businesses are interested.	Short	Local Chambers (BID, Economic Development)	Middlesex County Parks and Recreation, Middlesex County Economic Development, Local Chambers, Local Economic Development, Bike Walk Metuchen, Keep Middlesex Moving, Woodbridge ABC Committee, Edison Greenways Group, Marriott Hotel
	Identify times/locations for temporary rental station, or active promotion of rental locations	Medium	Local Chambers (BID, Economic Development)	
Provide benches and picnic tables in strategic locations	Identify strategic locations	Short	Edison Greenways Group	Middlesex County Parks and Recreation, Local Chambers, Keep Middlesex Moving, Bike Walk Metuchen, Woodbridge ABC Committee, Edison Greenways Group
	Research and evaluate bench options - costs, types, and ways to minimize loitering (e.g. CPTED)	Medium	Edison Greenways Group	
	Install benches (considering sponsorship program)	Medium	MC Parks & Recreation	
Encourage use of activity loops for exercise	Select safe bike and pedestrian activity loops	Short	Edison Greenways Group	Middlesex County Parks and Recreation, Middlesex County Planning, Middlesex County Public Safety and Health, Municipal Parks and Planning Depts., Keep Middlesex Moving, Bike Walk Metuchen, Woodbridge ABC Committee, Edison Greenways Group
	Promote selected activity loops for exercise	Medium	Edison Greenways Group	

Strategies	Actions	Timeframe	Lead Partner	Actors
Encourage local groups to use greenway for exercise	Develop short pamphlet on greenway features and exercise options and benefits	Short	Edison Greenways Group	Middlesex County Parks and Recreation,Middlesex County Planning, Middlesex County Public Safety and Health, Municipal Health and Senior Services Depts., Keep Middlesex Moving, Bike Walk Metuchen, Woodbridge ABC Committee, Edison Greenways Group
	Distribute and promote use of greenway with local organizations.	Short	Edison Greenways Group	
Link greenway to exercise stations	Identify strategic locations (e.g. Dudash Park)	Short	Edison Greenways Group	Middlesex County Parks and Recreation, Middlesex County Planning, Local Chambers, Municipal Public Works, Bike Walk Metuchen, Woodbridge ABC Committee, Edison Greenways Group, NJ TRANSIT, Edison Parks and Recreation, Local sports clubs that use nearby parks
	Research and evaluate options - costs, types	Medium	Edison Greenways Group	
	Install stations (considering sponsorship program)	Long	Edison Greenways Group	
Facilitate connections between greenway and other parks and trails	Inventory all nearby park and trail resources	Short	MC Parks & Recreation	Middlesex County Parks and Recreation, Middlesex County Planning, Municipal Parks and Planning Depts., Keep Middlesex Moving, Bike Walk Metuchen, Woodbridge ABC Committee, Edison Greenways Group
	Assess ability to provide safe connection	Short	MC Planning	
	Build or facilitate connecting path or trail	Long	MC Planning	
Provide signs indicating access to restrooms and refreshments	Identify restroom and refreshment facilities within 1/4 mile of greenway	Short	Edison Greenways Group	Middlesex County Parks and Recreation, Local Chambers, Municipal Planning and Public Works, Bike Walk Metuchen, Edison Greenways Group
	Create and install signage to direct users to these facilities	Medium	MC Parks & Recreation	
Increase use and benefit by vulnerable subpopulations				
Resources/Sources of Funding: NJDOT Local Municipal Aid, Federal Transportation Alternatives Program, NJTPA, Pascale Sykes Foundation, NJDOT Safe Routes to School, Private Partner Sponsors, Hospital Foundation, Volunteers				
Involve local health providers to prescribe greenway use for weight reduction/health improvement	Contact local physicians to discuss	Short	Local Health Departments, MC Public Safety and Health, local health-related non-profit	Middlesex County Parks and Recreation, Local Health Depts., Middlesex County Public Safety and Health

Strategies	Actions	Timeframe	Lead Partner	Actors
Increase the number of ADA-accessible ramps	Identify strategic locations to add ramps at access points	Short	MC Parks & Recreation	Middlesex County Parks and Recreation, Municipal Public Works, Municipal Senior Services, Bike Walk Metuchen, Woodbridge ABC Committee, Edison Greenways Group, NJ TRANSIT
	Research and evaluate options - costs, types	Medium	MC Parks & Recreation	
	Install ramps	Long	MC Parks & Recreation	
Create chaperone program for seniors and disabled	Identify potential chaperones and work with senior living and rehabilitation centers on timing and location	Short	Senior Center	Middlesex County Parks and Recreation, Middlesex County Human Services, Municipal Senior Services, Municipal Police Depts., Edison Greenways Group, Senior Centers
	Implement program	Medium	Senior Center	
Increase access and awareness of greenway by public transportation riders	Investigate nearby stops for ability to facilitate signs or markings to greenway	Medium	Edison Greenways Group	NJ TRANSIT, Municipal Planning Depts.
	Install signage or markings and promote "transit to greenway" usage	Medium	NJ TRANSIT	
Encourage safe use of the greenway for school students	Implement walk and bike to school events	Medium	Keep Middlesex Moving	Boards of Ed., Teachers' Associations, Middlesex County Parks and Recreation, Middlesex County Planning, PTOs/PTAs, Keep Middlesex Moving, Local Scout Troops
	Encourage other safe and/or supervised school uses and activities	Short	Keep Middlesex Moving	
	Consider natural interpretive signs (tree and wildflower ID, etc.)	Medium	MC Parks & Recreation	
Enhance trail cleanliness and maintenance				
Resources/Sources of Funding: Middlesex County Improvement Authority, NJDEP Community Forestry Program, Geraldine R. Dodge Foundation, Private Partner Sponsors, Business Owners, Middlesex County Open Space Trust Fund, Volunteers				
Install additional garbage and recycling cans, and dog refuse bags	Identify strategic locations for cans and bag dispensers	Short	MC Parks & Recreation	Middlesex County Parks and Recreation, Middlesex County Improvement Authority, Municipal Public Works, Local Health Depts., Edison Greenways, NJ TRANSIT
	Research and evaluate options - costs, types	Medium	MC Parks & Recreation	
	Install cans (consider sponsorship program)	Medium	Edison Greenways Group	
Install "no littering" signs	Add to existing signage or install new signs at strategic locations	Medium	MC Parks & Recreation	Middlesex County Parks and Recreation, Middlesex County Improvement Authority, Middlesex County Planning

Strategies	Actions	Timeframe	Lead Partner	Actors
Partner with local groups on a cleanup program, such as adopt-a-trail	Canvas local groups or businesses for interest	Short	Edison Greenways Group	Middlesex County Parks and Recreation, Middlesex County Planning, Middlesex County Improvement Authority, Edison Greenways Group, Local Chambers, Rutgers University, Local Scout Troops
	Research best practices on adopt-a-trail programs	Short	Edison Greenways Group	
	Organize and implement program	Long	MC Parks & Recreation, Edison Greenways Group	
Facilitate easy ways to report graffiti	Provide contact number or email on signs, pamphlets and website	Short	MC Parks & Recreation	Middlesex County Parks and Recreation, Middlesex County Public Safety and Health, Local Police Depts., Municipal Public Works, Edison Greenways Group
Minimize exposure to noxious weeds and animal and insect pests				
Resources/Sources of Funding: Middlesex County Mosquito Extermination Commission, Middlesex County Public Safety and Health, Municipal Health Departments				
Improve drainage to reduce standing water	Identify locations with standing water after rain	Short	MC Parks & Recreation, MC Planning	Middlesex County Parks and Recreation, Middlesex County Planning, Middlesex County Improvement Authority, Middlesex County Mosquito Extermination Commission, Local Public Works
	Study possible improvements in drainage and flow	Medium	MC Parks & Recreation, MC Planning	
	Implement improvements	Long	MC Parks & Recreation	
Notify greenway users of mosquito treatments	Provide announcement through Facebook, Twitter, local public announcements	Short	MC Parks & Recreation	Middlesex County Parks and Recreation, Middlesex County Public Safety and Health, Middlesex County Mosquito Extermination Commission
Institute periodic animal patrols for stray or nuisance animals	Select appropriate times/intervals and allocate patrols	Medium	MC Parks & Recreation	Middlesex County Parks and Recreation, Middlesex County Public Safety and Health, Local Animal Control
Add signage/education about ticks	Develop appropriate information about tick awareness and bite prevention	Short	MC Public Safety & Health	Middlesex County Parks and Recreation, Middlesex County Public Safety and Health, Local Health and Animal Control
	Distribute information (online info, put onto a sign)	Medium	MC Parks & Recreation	
Notify greenway users of management plan for poison ivy and other noxious weeds	Develop appropriate information about avoiding contact with noxious plants and distribute information	Short	MC Public Safety & Health	Middlesex County Parks and Recreation, Middlesex County Public Safety and Health
	Monitor for presence of noxious weeds and reduce exposure, where possible	Medium	MC Parks & Recreation	

Strategies	Actions	Timeframe	Lead Partner	Actors
Improve feelings of security for greenway users ● ● ●				
Resources/Sources of Funding: Private Partner Sponsors, Local Businesses, Corporate Giving, PSE&G, NJ Turnpike Authority, Middlesex County Open Space Trust Fund, NJDOH Small Community Grant				
Consider additional locations for surveillance cameras	Prioritize locations for additional cameras (tunnels, more isolated areas)	Short	Middlesex County	Middlesex County Parks and Recreation, Middlesex County Planning, Middlesex County Public Safety and Health, Local Emergency and Rescue Depts., Local Police/Public Safety Departments, Edison Greenways Group
	Explore options for purchasing more cameras, including responsibility for monitoring, or possible mock cameras	Medium	Edison Greenways Group	
Improve signage along greenway for emergency preparedness	Include clear emergency contact information on signage	Short	MC Parks & Recreation	Middlesex County Parks and Recreation, Middlesex County Public Safety and Health, Local Emergency and Rescue Depts., Edison Greenways Group
	Indicate location along greenway in relation to nearby roads and sites for assurance in reporting emergencies	Medium	Edison Greenways Group	
Improve lighting and fences in strategic locations like bridges and schools	Identify locations in need of additional lighting	Short	MC Parks & Recreation	Middlesex County Parks and Recreation, Middlesex County Planning, Local Planning and Engineering, Edison Greenways Group, NJ Turnpike Authority, Local Police/Public Safety Departments
	Install lighting options, including bluelight posts	Medium	MC Parks & Recreation	
Consider strategic vegetation maintenance and management to promote eyes on the greenway	Identify locations where vegetation might be pruned or removed to reduce feeling of isolation	Medium	MC Parks & Recreation	Middlesex County Parks and Recreation, Middlesex County Planning, Middlesex County Public Safety and Health, Local Planning and Parks/Recreation, Edison Greenways Group
	Manage vegetation for multiple objectives	Medium	MC Parks & Recreation	
Foster walking groups through local civic groups and employers to bring safety in numbers	Identify key local groups that could form walking groups and provide greenway information to them	Short	Edison Greenways Group	Edison Greenways Group, Local Health Depts., Local Residents and Businesses
	Create a "trail watch" program	Medium	Edison Greenways Group	
Increase police patrols at certain times of day/days of week	Identify appropriate and feasible times and allocate personnel for patrol	Medium	Local PDs	Middlesex County Parks and Recreation, Local Police/Public Safety Depts.

Strategies	Actions	Timeframe	Lead Partner	Actors
Minimize crashes and injuries for pedestrians and bicyclists accessing or using the greenway				
Resources/Sources of Funding: NJDOT Municipal & County Aid, Middlesex County Planning, Middlesex County Open Space Trust Fund, Recreational Trails Program, Federal Transportation Alternatives Program				
Improve crosswalks at road intersections	Identify most dangerous intersection crossings	Medium	MC Planning	Middlesex County Parks and Recreation, Middlesex County Planning, Middlesex County Planning, NJDOT, Edison Greenways Group, Municipal Engineering and Planning
	Research and evaluate options to improve safety - costs, types	Long	MC Planning	
	Make improvements	Long	MC Planning	
Improve crosswalk safety near trail access points	Identify most dangerous crosswalks near trail access points (e.g. Amboy Ave and Pierson Ave)	Medium	MC Planning	Middlesex County Parks and Recreation, Middlesex County Planning, NJDOT, Edison Greenways Group, Municipal Engineering and Planning, Middlesex County Planning
	Research and evaluate options to improve safety - costs, types (e.g. reduced crossing length, improved signaling)	Long	MC Planning	
	Make improvements	Long	MC Planning	
Install greenway etiquette/safe use signs (e.g. yield to pedestrians, pass with care, keep right)	Develop list of etiquette/educational use signs	Medium	MC Parks & Recreation	Middlesex County Parks and Recreation, Middlesex County Planning, Municipal Public Works, Local Health Depts., Edison Greenways Group
	Install at strategic locations	Medium	MC Parks & Recreation	
Where feasible, widen greenway	Monitor and assess locations with potential for widening	Short	MC Parks & Recreation	Middlesex County Parks and Recreation, Middlesex County Planning, Edison Greenways Group
	Widen and stripe lanes where feasible	Long	MC Parks & Recreation	
Identify areas with high drop-off from paved trail to ground and seek to reduce drop-off height	Monitor and assess locations with more than normal drop-off heights	Short	MC Parks & Recreation	Middlesex County Parks and Recreation, Middlesex County Planning, Edison Greenways Group
	Mitigate with sloping pavement or other material to lessen drop-off	Medium	MC Parks & Recreation	

Strategies	Actions	Timeframe	Lead Partner	Actors
Support usage of the greenway by local educational institutions ●●●				
Resources/Sources of Funding: US Department of Education Green Ribbon Schools, Geraldine R. Dodge Foundation, NJDOT Safe Routes to School (via Keep Middlesex Moving), Rutgers University, Other Research Institutions, Private Partner Sponsors, Corporate Giving (like the Macy's Foundation)				
Develop outdoor-themed curricula for multiple fields of study, including athletics, history, social studies and science amongst others, that promotes sustainability	Conduct research to find packaged/readymade sustainability or outdoor themed curricula across multiple fields of study	Short	Local Educators	Middlesex County Education, NJ Department of Education, Rutgers University, Middlesex County College, Middlesex County Cultural and Heritage Commission, Schools, Boards of Education
	Design teacher training on how to conduct educational classes in an outdoor setting	Medium	NJDOE	
	Work with higher education institutions to secure grants for curricula-writing	Short	Local Educators	
	Work with higher education institutions to design curricula that leverages outdoor resources in the classroom, across multiple fields of study	Medium	Local Educators	
	Explore ways to and advocate for better integration of outdoor learning in the Common Core	Medium	NJDOE	
Leverage the greenway for after school sports and clubs	Work with the county to create and distribute release/liability forms to students	Short	PTOs/PTAs	Middlesex County Parks and Recreation, Schools, PTOs/PTAs
	Work with the county to schedule use of the greenway for after school sports and clubs	Short	PTOs/PTAs	
Support usage of the greenway for travel to and from schools	Circulate information to parents on all methods of travel to and from school that includes the greenway	Short	Keep Middlesex Moving	Keep Middlesex Moving, Schools, Middlesex County Parks and Recreation, Middlesex County Planning, Edison Greenways Group, PTOs/PTAs
	Organize more frequent walk and bike to school events like Walking Wednesdays where students and parents walk and bike along the trail to school together	Short	Keep Middlesex Moving	
	Create walking school buses or cycle trains where groups of children can walk or bike to school with one or more adults (similar to Safe Routes to School)	Short	Keep Middlesex Moving	
	Work with willing residents and businesses near greenway access points on establishing safe havens	Medium	MC Parks & Recreation	
Leverage the greenway for fundraisers and philanthropy	Work with the county to schedule use of greenway for philanthropic walks/runs or other community events	Short	PTOs/PTAs	Middlesex County Parks and Recreation, Schools, PTOs/PTAs
Leverage the greenway for research purposes	Develop and implement research projects, ranging from health impacts of the greenway and environmental studies to economic development impacts, that can benefit students and the county/greenway users	Medium	MC Parks & Recreation	Middlesex County Parks and Recreation, Middlesex County Planning, Schools, Rutgers University, Middlesex County College, Edison Wetlands Association, Other Research Institutions

Strategies	Actions	Timeframe	Lead Partner	Actors
Promote usage of the greenway by scouts				
Resources/Sources of Funding: Private Partner Sponsors, Girl Scouts of America, Boy Scouts of America				
Create or expand a process whereby scouting groups can formally submit applications for projects along the greenway	Develop a shortlist of potential projects that scouts can work on	Short	Edison Greenways Group	Girls Scouts, Boy Scouts, Middlesex County Parks and Recreation, Edison Greenways Group, Other Environmental and Education Groups
	Coordinate with scouts to implement projects	Short	Edison Greenways Group	
Work with scouting groups to promote the greenway	Create materials about the greenway that are easy for young scouts to understand	Short	MC Parks & Recreation	Girls Scouts, Boy Scouts, Middlesex County Parks and Recreation, Edison Greenways Group, Other Environmental and Education Groups
	Consider guest speaking at a scouts meeting to distribute materials and promote greenway usage	Short	Edison Greenways Group	
	Develop a scout project on greenway promotion	Short	Edison Greenways Group	
Support usage of the greenway by environmental and other education groups				
Resources/Sources of Funding: Private Partner Sponsors, Edison Wetlands, Other Environmental and Educational Groups				
Create or expand a process whereby environmental and other educational groups can formally submit applications for projects along the greenway	Develop a shortlist of potential projects that environmental and other educational groups can work on	Short	Edison Wetlands Association	Middlesex County Parks and Recreation, Edison Greenways Group, Edison Wetlands Association, Lower Raritan Watershed Partnership, Other Environmental and Educational Groups
	Develop an application or cosponsorship form for projects	Short	MC Parks & Recreation	
	Coordinate with groups to implement projects	Short	MC Parks & Recreation	
Work with environmental and other educational groups to promote the greenway	Circulate maps and information to environmental and educational groups that highlight benefits of greenway and shared sustainability goals	Short	Edison Wetlands Association	Middlesex County Parks and Recreation, Edison Greenways Group, Edison Wetlands Association, Lower Raritan Watershed Partnership, Municipal Planning Departments, Other Environmental and Educational Groups
	Consider guest speaking at meetings or events about the greenway	Short	Edison Greenways Group	

Strategies	Actions	Timeframe	Lead Partner	Actors
Promote the greenway, nearby businesses and places as a local tourism destination ●●●				
Resources/Sources of Funding: NJ Bicycle & Pedestrian Resource Center, NJ Travel & Tourism Cooperative Marketing Grant, NJ Historic Trust Garden State Historic Preservation Trust Fund, Central Jersey Convention & Visitor's Bureau, Property Owners, Business Owners, Private Partner Sponsors, Chambers of Commerce, BIDs/SIDs, NJ Trails Association, Hackathon				
Leverage the greenway to increase patronage of local businesses	Promote activity loops to bring greenway users to businesses and customers to the greenway	Medium	Chambers of Commerce	Middlesex County Parks and Recreation, Edison Greenways Group, Middlesex County Regional Chamber of Commerce, Metuchen Chamber of Commerce, Edison Chamber of Commerce, Woodbridge Metro Chamber of Commerce, New Brunswick Avenue SID, Local Business Owners, Middlesex County Economic Development, Middlesex County Cultural and Heritage Commission, NJ Business Action Center, NJ Travel and Tourism
	Circulate day-trip itineraries that contain information about the greenway (include social media handles and URLs) that businesses can keep for their customers	Medium	Chambers of Commerce	
	Foster greater communication with local chambers	Short	Edison Greenways Group	
Increase use of greenway by clubs	Promote greenway as a tool for social cohesion	Short	Edison Greenways Group	Middlesex County Parks and Recreation, Edison Greenways Group, YMCA of MEWSA, Girl Scouts, Boy Scouts, Local Clubs
Incorporate the greenway into community festivals, events and fundraisers	Build upon inventory of events to identify opportunities where the greenway stewards can partner or table	Short	Edison Greenways Group	Middlesex County Parks and Recreation, Edison Greenways Group, Middlesex County Regional Chamber of Commerce, Middlesex County Cultural and Heritage Commission, Metuchen Chamber of Commerce, Edison Chamber of Commerce, Woodbridge Metro Chamber of Commerce, New Brunswick Avenue SID, Event Coordinators
	Coordinate with event managers to secure opportunities for spreading the word, such as tabling, distribution of maps and day-trip itineraries, etc.	Short	Edison Greenways Group	

Strategies	Actions	Timeframe	Lead Partner	Actors
Foster enhanced usage and promotion of the greenway by hotels and conference centers	Circulate greenway information and videos to hotels and conference centers	Short	Chambers of Commerce	Middlesex County Parks and Recreation, Edison Greenways Group, Middlesex County Regional Chamber of Commerce, Middlesex County Economic Development, Metuchen Chamber of Commerce, Edison Chamber of Commerce, Woodbridge Metro Chamber of Commerce, Hotels, Conference Centers, NJ Travel and Tourism, Central Jersey Convention & Visitor's Bureau
	Promote greenway as a leisure amenity	Short	Chambers of Commerce	
Market public transportation options to access the greenway	Include location of bus stops and train stations on greenway map and day-trip itinerary	Short	MC Parks & Recreation	Middlesex Greenway Parks and Recreation, Edison Greenways Group, Keep Middlesex Moving, Bike/Walk Metuchen, Woodbridge ABC Committee, NJ TRANSIT
	Make transit schedules or links to schedules readily available on greenway websites and social media pages	Short	MC Parks & Recreation	
	Encourage use of public transportation when advertising greenway-related events	Short	Edison Greenways Group	
Create day-trip itineraries of the greenway and surrounding areas for tourism purposes, highlighting the greenway as a community and ecotourism destination	Research similar precedents (such as the High Line and Henry Hudson Trail)	Short	Edison Greenway Groups	Middlesex County Parks and Recreation, Edison Greenways Group, Middlesex County Regional Chamber of Commerce, Metuchen Chamber of Commerce, Edison Chamber of Commerce, Woodbridge Metro Chamber of Commerce, New Brunswick Avenue SID, Event Coordinators, Middlesex County Economic Development, Middlesex County Cultural and Heritage Commission, NJ Travel & Tourism, Central Jersey Convention & Visitor's Bureau
	Building off of activity loops, work collaboratively to create visually appealing and user-friendly online and print version itineraries that include the greenway in relation to commercial districts, shopping centers, historic attractions, arts attractions, music and theatre, parks/trails, and transit stops; and list major community events	Short	Chambers of Commerce	
	Promote online version of itinerary through websites and social media	Short	Chambers of Commerce	
	Consider development of a mobile application that integrates the day-trip itinerary on an easy-to-read map for navigation and local tourism purposes	Medium	Edison Greenways Group	
	Circulate print version itineraries as pamphlets by partnering with local businesses and other attractions	Short	Edison Greenways Group	
	Continue to update itinerary seasonally	Long	Chambers of Commerce	

Strategies	Actions	Timeframe	Lead Partner	Actors
Leverage the greenway as an asset for economic development				
Resources/Sources of Funding: Research Institutions, Private Partner Sponsors, Property Owners, Developers, Business Owners, NJ TRANSIT, NJTPA				
Develop a marketing strategy to approach potential developers on value of greenway	Collect and analyze literature on the impact of greenways and open spaces on real estate and economic activity in communities	Short	Edison Greenways Group	Middlesex County Parks and Recreation, Middlesex County Planning, Edison Greenways Group, Research Institution or Consultant, Middlesex County Economic Development, Middlesex County Regional Chamber of Commerce
	Complete an analysis on the impact of the greenway on real estate values	Medium	Edison Greenways Group	
	Complete an analysis on the impact of the greenway on commercial and retail activity	Medium	Edison Greenways Group	
	Use research and analysis to develop a marketing strategy to attract developers for complementary uses	Medium	MC Economic Development	
	Market greenway to communities as an economic driver	Long	MC Economic Development	
Develop a strategy to connect greenway and nearby transit to development and redevelopment	Require multi-modal and transit-ready access in all development and redevelopment (add language to code)	Long	Local Planning Boards	Middlesex County Planning, Middlesex County Transportation, NJDOT, Borough of Metuchen, Township of Edison, Township of Woodbridge, Local Planning Boards, Local Redevelopment Agencies, NJ TRANSIT
	Adopt or implement Complete Streets policy (Edison)	Long	Edison Planning Board	
	Incentivize developers to connect to the greenway through bicycle parking, greenway signage, etc.	Long	Local Planning Boards	
Leverage bike- and pedestrian-friendly activity loops for infill, transit-oriented and greenway-oriented development	Inventory vacant storefronts and vacant lots in commercial districts near the greenway and particularly along activity loops, including information on ownership, length of vacancy, average rent, etc.	Short	MC Planning	Middlesex County Planning, Middlesex County Economic Development, Edison Greenways Group, Middlesex County Chamber of Commerce, Borough of Metuchen, Township of Edison, Township of Woodbridge, Middlesex County Improvement Authority, NJ TRANSIT
	Promote occupancy of vacant storefronts and development of vacant lots by marketing as part of bike- and pedestrian-friendly activity or tourism loops	Medium	MC Economic Development	
	Promote transit-oriented uses and development that link to greenway and bus stops and/or train stations	Long	MC Planning	
Integrate art into the greenway				
Resources/Sources of Funding: NJ State Council on the Arts grants, Geraldine R. Dodge Foundation, Private Partner Sponsors, Corporate Giving, Rutgers University Mason Gross School of the Arts, National Endowment for the Arts, Mid Atlantic Arts Foundation				
Explore best practices for integration of arts into parks and trails	Building on case study inventory of art in greenways, identify cases that best relate to Middlesex Greenway	Short	Edison Greenways Group	Middlesex County Parks and Recreation, Middlesex County Planning, Middlesex County Cultural and Heritage Commission, Edison Greenways Group
	Consult with other places on integration, installation and maintenance of art along greenways	Short	Edison Greenways Group	



Strategies	Actions	Timeframe	Lead Partner	Actors
Work with local artists, schools and organizations to creatively integrate art into greenway (ranging from functional art, like a bench, poetry plaques and musical performances near the greenway, to tours with nearby art studios, sculptures and landscape architecture)	Inventory arts-related programs in the area	Short	Township of Woodbridge	Middlesex County Parks and Recreation, Middlesex County Planning, Middlesex County Cultural and Heritage Commission, Edison Greenways Group, Middlesex County Engineering, Borough of Metuchen, Township of Edison, Township of Woodbridge, NJ Arts Council, COLab Arts, 4H Expressive Arts, Barton Arts Center
	Determine suitability of greenway and adjacent neighborhoods for different types of art and art programming	Medium	Edison Greenways Group	
	Issue a request for proposals or a create a process by which artists can submit project proposals	Medium	MC Parks & Recreation	
Promote greenway as a local arts destination	Expand arts inventory to include nearby museums, art shows, art venues, exhibitions, musical performances, etc.	Short	Township of Woodbridge	Middlesex County Parks and Recreation, Middlesex County Planning, Middlesex County Cultural and Heritage Commission, Edison Greenways Group, Middlesex County Engineering, Borough of Metuchen, Township of Edison, Township of Woodbridge, Chambers of Commerce, COLab Arts, 4H Expressive Arts, Barton Arts Center
	Integrate arts-related destinations into day-trip itineraries	Short	Edison Greenways Group	
	Consider developing an art walk that includes the greenway	Medium	Township of Woodbridge	

Strategies	Actions	Timeframe	Lead Partner	Actors
Expand access to and extend the greenway ●●●				
Resources/Sources of Funding: NJDEP Green Acres, USEPA Brownfields and Land Revitalization grants, Middlesex County Open Space Trust Fund, Private Partner Sponsors, Corporate Giving				
Expand existing access points and/or add new ones and ensure they are ADA accessible	Secure funding to open access at Green Street access point to connect to Charles Myrtle Park	Medium	Borough of Metuchen	Middlesex County Parks and Recreation, Middlesex County Planning, Middlesex County Engineering, Borough of Metuchen, Hillside Garden Property Owner/Manager, Township of Woodbridge
	Examine feasibility of creating dual-side access at the Hillside Garden-installed access point	Short	MC Parks & Recreation	
	Secure funding to open access at E. William Street Park in Fords to create eastern trail entrance	Medium	Township of Woodbridge	
	Implement enhanced access	Long	MC Parks & Recreation	
Extend the greenway east to Perth Amboy	Building off of 2010 Middlesex Greenway Extension Plan, conduct robust public outreach and planning to explore how greenway can connect to nearby transit, commercial districts, centers of employment, and other places west; and explore owner willingness to provide easements, environmental impacts, value determinations, preliminary cost estimate, geotech work, etc.	Medium	MC Planning	Middlesex County Parks and Recreation, Middlesex County Planning, Middlesex County Engineering, Middlesex County Transportation, Borough of Metuchen, Township of Edison, Township of Woodbridge, City of Perth Amboy, Conrail, NJ Department of Environmental Protection, Middlesex County Improvement Authority, NJ Department of Transportation, East Coast Greenway Alliance, Steering Committee Members
	Leverage this local demonstration project, other greenway efforts, and public outreach efforts to foster a strong grassroots coalition for a greenway extension	Medium	Edison Greenways Group	
	Negotiate with Conrail on right-of-way acquisition	Long	Middlesex County	
	Secure funding to acquire right-of-way	Long	MC Parks & Recreation	
	Implement extension that connects to transit stops, commercial districts, centers of employment and other key places in Woodbridge and Perth Amboy	Long	MC Parks & Recreation	

FUTURE GREENWAY

Strategies	Actions	Timeframe	Lead Partner	Actors
Extend the greenway west to the Dismal Swamp	Building off of 2010 Middlesex Greenway Extension Plan, conduct robust public outreach and planning to explore how greenway can connect to nearby transit, commercial districts, centers of employment, and other places east; and explore owner willingness to provide easements, environmental impacts, value determinations, preliminary cost estimate, geotech work, etc.	Medium	MC Planning	Middlesex County Parks and Recreation, Middlesex County Planning, Middlesex County Engineering, Middlesex County Transportation, Borough of Metuchen, Township of Edison, Township of Woodbridge, City of Perth Amboy, Borough of South Plainfield, Dismal Swamp Preservation Commission, Conrail, NJ Department of Environmental Protection (Green Acres), Middlesex County Improvement Authority, NJ Department of Transportation, East Coast Greenway Alliance, Steering Committee Members
	Leverage this local demonstration project, other greenway efforts, and public outreach efforts to foster a strong grassroots coalition for a greenway extension	Medium	Edison Greenways Group	
	Negotiate with Conrail on right-of-way acquisition	Long	Middlesex County	
	Secure funding to acquire right-of-way	Long	MC Parks & Recreation	
	Secure funding for easement across Middlesex Ave	Long	MC Parks & Recreation	
	Implement extension that connects to transit stops, commercial districts, centers of employment and other key places in South Plainfield, Edison and Metuchen	Long	MC Parks & Recreation	
Consider winter programming (such as cross country skiing) for the trail	Explore precedents for winter maintenance or programming of greenways and paved trails, including associated costs and environmental impacts	Short	MC Parks & Recreation	Middlesex County Parks and Recreation, Middlesex County Planning, Middlesex County Engineering, Edison Greenways Group, Borough of Metuchen, Township of Edison, Township of Woodbridge
	Circulate information to users on safe winter usage of greenway	Medium	MC Parks & Recreation	

Strategies	Actions	Timeframe	Lead Partner	Actors
Develop connectors to local and regional parks, trails, open spaces and neighborhoods				
Resources/Sources of Funding: NJDEP Green Acres, USEPA Brownfields and Land Revitalization grants, Middlesex County Open Space Trust Fund, PSE&G, Private Partner Sponsors, Corporate Giving, National Park Foundation, NJTPA				
Implement connection to proposed future route of East Coast Greenway	Leverage the coalition formed around the Middlesex Greenway to negotiate with property owners to acquire or share the right-of-way	Long	East Coast Greenway Alliance	Middlesex County Parks and Recreation, Middlesex County Planning, Middlesex County Engineering, Middlesex County Transportation, Township of Edison, Township of Woodbridge, NJ Department of Environmental Protection (Green Acres), NJ Department of Transportation, East Coast Greenway Alliance, Steering Committee Members
Facilitate connections to Roosevelt Park and other parks; Menlo Park Mall, Woodbridge Center Mall, and other regional destinations	Make bicycle and pedestrian improvements along streets to connect to Roosevelt Park and other parks	Medium	MC Planning	Middlesex County Parks and Recreation, Middlesex County Planning, Middlesex County Engineering, Middlesex County Transportation, Borough of Metuchen, Township of Edison, Township of Woodbridge, Borough of South Plainfield, City of Perth Amboy, Middlesex County Improvement Authority, PSE&G, NJTPA, NJ Department of Environmental Protection (Green Acres), NJ Department of Transportation
	Research NJ and other precedents of use of utility right-of-ways for pedestrian and bicycle trails (including North Brunswick and West Windsor) to determine circumstances and agreements	Short	Edison Greenways Group	
	Conduct a planning study on the use of PSE&G utility right-of-ways (along Route 1 and to Roosevelt Park) for bicycle and pedestrian trails	Medium	MC Planning	
	Submit application to PSE&G and negotiate on an easement and lease agreement for use of utility right-of-ways for trails	Long	MC Parks & Recreation	
	Implement trail connections	Long	MC Parks & Recreation	

FUTURE GREENWAY

Strategies	Actions	Timeframe	Lead Partner	Actors
Facilitate collaborative, regional partnerships to plan for the future use and stewardship of the greenway				
Resources/Sources of Funding: Private Partner Sponsors, Corporate Giving				
Enhance collaboration between the county, three municipalities, Edison Greenways, and other stakeholders	Communicate regularly on matters related to the greenway, including implementation of these strategies	Long	Edison Greenways Group	Middlesex County Parks and Recreation, Middlesex County Planning, Edison Greenways Group, Municipalities, Steering Committee Members
Bolster Edison Greenways as a greenway stewardship organization through expanded support, membership and partnerships	Use Edison Greenways and the Middlesex Greenway Alliance as a forum to continue collaboration from the Middlesex Greenway Access Plan local demonstration project	Short	Edison Greenways Group	Middlesex County Parks and Recreation, Middlesex County Planning, Edison Greenways Group, East Coast Greenway Alliance, Middlesex County Chamber of Commerce, Steering Committee Members
	Continue to foster network of greenway supporters by distributing information, leveraging greenway videos and utilizing social media	Short	Edison Greenways Group	
	Research precedents and models of other non-profit trail stewardship organizations to determine best practices, most effective business model, and most effective government-non-profit collaboration model	Short	Edison Greenways Group	
	Hire consultant or employee to launch a capital/major gifts or sponsorship campaign to encourage nearby large businesses and institutions to make large donations that can be managed by Edison Greenways Group and Middlesex County Parks and Recreation for programs like adopt-a-trail	Medium	Edison Greenways Group	
	Financially support and expand Edison Greenways Group to maintain and serve as steward of the greenway	Long	Edison Greenways Group	

Strategies	Actions	Timeframe	Lead Partner	Actors
Foster a network of greenway planning and stewardship groups to support similar efforts throughout the region (Morris Canal Greenway, East Coast Greenway, Hudson River Walkway, etc.)	Participate in meetings of other trail and greenway efforts	Short	Edison Greenways Group	Edison Greenways Group, Middlesex County Parks and Recreation, Middlesex County Planning, Middlesex County Improvement Authority, NJ Department of Environmental Protection (Parks and Forestry), East Coast Greenway Alliance, NJTPA, Together North Jersey, Trail Stewardship Groups, Greenway Planning Efforts
	Advise and support when needed	Short	Edison Greenways Group	
	Partner with the East Coast Greenway Alliance to launch bike/walk/run events across the region	Medium	Edison Greenways Group	
	Continue to collaborate through East Coast Greenway Alliance or another network	Long	Edison Greenways Group	

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