



VILLAGE OF HAVERSTRAW, NEW YORK

Comprehensive Plan - Volume 1
Haverstraw Forward/Adelante!

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Comprehensive Plan - Volume 1 **Haverstraw Forward/Adelante!**

***Recommended by Comprehensive Plan Committee:
December 2019***

Adopted by Village Board: July 2021

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The Village of Haverstraw Comprehensive Plan Committee

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ACKNOWLEDGMENTS

The Village of Haverstraw gratefully acknowledges the State of New York for providing funding support for the preparation of its Comprehensive Plan and Local Waterfront Revitalization Plan. The opinions, results, findings and/or interpretations of data contained herein are solely those of the Village of Haverstraw and do not necessarily represent the opinions, interpretation or policy of the State of New York. This project has been funded in part by the Climate Smart Community Grant Program, Title 15 of the Environmental Protection Fund through the New York State Department of Environmental Conservation. The Village also acknowledges the members of the Joint Committee and consulting team who made the Village of Haverstraw Comprehensive Plan possible.

The Steering Committee dedicates this Comprehensive Plan to the residents, stakeholders, organizations and businesses that tirelessly participated in the public workshops, charettes and events and without whose contributions this document would not have been possible.

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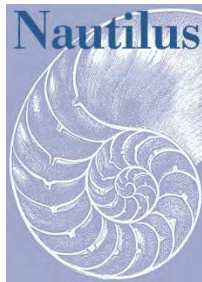
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Credit: *Village of Haverstraw, 2017 (except Chapter 10)*



1 INTRODUCTION



This document constitutes the first comprehensive review, analysis and plan for the Village of Haverstraw's land use policies in 26 years. It is intended to guide continued growth and revitalization of the Village, but in a more sustainable and climate resilient manner. Through this document, the Village is committing to the social welfare of its residents and stakeholders, stewardship of environmental resources and improvement of economic conditions.

1 INTRODUCTION

1.1 THE PROCESS

The Village of Haverstraw (hereafter also referred to as the “Village”) embarked on the process of updating its Comprehensive Plan and Local Waterfront Revitalization Program in March of 2018 with the overall goal of developing guidelines for a resilient, sustainable community that will achieve its potential as a regional economic driver. The process is being funded in part with a generous grant from the New York State Department of Environmental Conservation and was prepared in parallel with an update to the Village's Local Waterfront Revitalization Program (LWRP) which is being funded in part with a grant from the New York State Department of State.

In March of 2018, the Village appointed a Comprehensive Plan Task Force which also served as the Waterfront Steering Committee for preparation of the LWRP and was known as the “Joint Taskforce.” A request for proposals by qualified planning firms that could assist the Village in preparing the plan was issued by the Village in April of 2018, and interviews of qualified consultants proceeded over the summer of 2018. Nelson, Pope & Voorhis, LLC in partnership with Nautilus International Development Consulting, Inc., and Edward M. Weinstein Architecture & Planning was chosen to assist the Village in preparing the Comprehensive Plan and LWRP in September of 2018, and the first “kick-off” meeting of the Joint Taskforce was conducted on October 30, 2019.

The process to prepare this Plan was a grassroots endeavor built upon substantial public outreach. The Comprehensive Plan Committee was assembled from Trustees, Planning Board members, residents, business owners and local institutional stakeholders. The Comprehensive Plan Committee also served as the Waterfront Advisory Committee for preparation of the LWRP update and this Committee is hereafter referred to as the Joint Taskforce, the Comprehensive Plan Committee, CPC and in some instances, “The

Committee.” The Joint Taskforce conducted monthly meetings open to the public and held six public outreach meetings over a span of six months in order to solicit input and form the vision, policies and strategies of the plan. These public outreach meetings were publicized in both English and Spanish Language periodicals, social media and the Village's reverse 911 notification system. Banners were also posted at Village gateways, and cards left in local shops, places of worship, and public buildings. All meetings were conducted on weekday evenings, except as otherwise noted below, and Spanish speaking committee members facilitated special meeting groups for those with limited English-language fluency. These public outreach meetings included:

Workshop 1 – Visioning, Inventory & Analysis (January 30, 2019)

This meeting was conducted to disclose existing conditions information to the public and to collect broad input from the public. The meeting consisted of a 40-minute presentation of existing conditions followed by small group breakout discussions, followed by reporting of results and voting by attendees on what they felt were the most critical issues. This meeting was attended by 46 stakeholders.

Workshop 2 – Transportation & Land Uses (February 27, 2019)

This meeting was conducted for the purpose of collecting more detailed input from the public on transportation and land use. The meeting consisted of a brief 20-minute presentation instructing attendees on existing conditions, as well as the format and topics of breakout groups. The public then rotated through six topical groups designed to solicit input on where stakeholders “live, work, play, learn and shop.” Following the small group breakout, each facilitator reported key takeaways back to the reassembled gathering. This meeting was attended by 58 stakeholders.

Workshop 3 – Downtown Charrette (March 27, 2019)

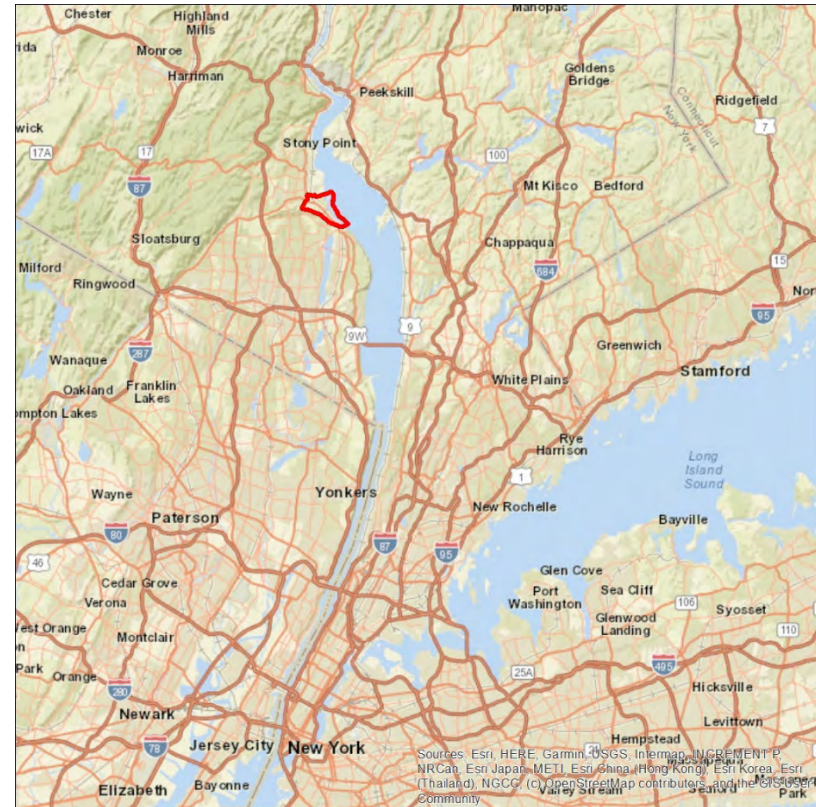
This meeting was conducted for the purpose of gathering input on the physical layout and design of downtown and manners in which it should be preserved or improved. The meeting began with a brief introduction and then immediate breakout groups on the topics of authenticity and historic preservation; connections and gateways; parking and transportation alternatives; safety – perception and reality; diversity, social cohesion and potential gentrification; vitality and quality of life. This meeting was attended by 72 stakeholders.

Workshop 4 – Sustainability & Climate Change (May 1, 2019)

This meeting was conducted for the purpose of educating the public on the causes of climate change, its impacts on the Village, especially coastal areas, and to solicit feedback on how the Village can adapt to climate change and lower greenhouse gas emissions. A gallery of was arranged at the entrance of the meeting space containing exhibits educating the public on various topics relating to climate change, sustainability, sea level rise, storm intensification, and existing government sustainability programs such as composting, recycling and energy efficiency. The meeting began with a session educating the public to sustainability programs, as well as coastal vulnerability modelling. Stakeholders were then invited to participate in small group breakouts on the following subjects: energy efficiency and use reduction; recycling and materials management, green and sustainable infrastructure, climate resilience, and food systems. After the breakout groups, key takeaways and recommendations were developed and attendees were asked to vote on their top priorities. This meeting was attended by 38 stakeholders.

Workshop 5 – Downtown: Flavors of Haverstraw (June 2, 2019)

This workshop was a “pop-up” meeting conducted at the fifth annual Flavors of Haverstraw food crawl event. The festival was attended by over 1,000 residents and visitors who attended primarily to sample



Regional Location

Credit: Nelson, Pope & Voorhis

many of the Village's restaurants as well as area breweries. The purpose of the meeting was to reach a broader audience with the materials created for the comprehensive plan, most importantly those elements regarding sustainability and climate change. Several exhibits were posted around a tent, and several consultants and committee members were on hand on Saturday from noon to four to solicit input from event attendees as they passed by. The event resulted in the submission of 39 resident surveys, 27 visitor surveys, 12 “Big Idea” suggestion box submissions, and input on whether residents would use a conceptual loop bus. Countless stakeholders were engaged through this event.

Workshop 6 – Waterfront Charrette (June 12, 2019)

The final meeting was conducted for the purpose of gathering input on the layout, appropriate use and design of the Village's many waterfront sites. The meeting was composed of three design exercises for the former Empire Chair Factory site, also referred to as "Site C"; other waterfront growth and preservation areas; and recreational uses of the waterfront. All attendees rotated through all three of these exercises in small groups. Additionally, resident surveys and "Big Idea" forms developed for Workshop 5 were also collected at this meeting. This meeting was attended by 31 stakeholders.

All meeting minutes, agendas and work products were posted for public review on the Village website. Approximately 14 months following commencement of its work, the Joint Taskforce recommended adoption of this updated Comprehensive Plan to the Village Board of Trustees.

1.2 THE VILLAGE

Haverstraw is an urban village located along the Hudson River approximately 25 miles north of New York City. It was incorporated as the Village of Warren from the Town of Haverstraw in 1854 and changed its name to Haverstraw several years later. The Town of Haverstraw was formed from Orange County in 1788, but both the Village and Town are now entirely located in Rockland County, New York which was established in 1798. Historically, the Village developed as the center of government in the town, and the primary link between agriculture throughout North Rockland and the Hudson River. In the 1800s a vibrant brickyard industry would spring up along the Hudson River and come to define the Village's geography and character.

Today, Haverstraw's rich history is evident in the impressive architecture and wealth of structures constructed between the early 19th and early 20th century. The impressive architecture of the Village is complemented by the scenic vistas of High Tor Mountain and the Hudson River and lend the Village a historic and scenic character,

which are discussed further in Chapter 8. The presence of the mountain and river at the eastern and western edges of the Village provides a strong boundary between urban neighborhoods and open space, without transitional suburban districts, which is unique in the region.

The U.S. Census Bureau estimated a 2018 population of 12,034. The most notable demographic attribute of the Village of Haverstraw is its proportion of residents of Hispanic origin (68.7%). The prevalent Hispanic population has a strong influence on the character and culture of the Village, from its festivals to its businesses and institutions. More demographic information is available from the demographic inventory and analysis chapter in Volume 2 of this plan.

The Village maintains a strong relationship with the river today, with a commuter ferry providing regular weekday service to Ossining, NY where access to New York City is available via transfer to the Metro-North's East Shore rail service. Routes 9W and 202 provide regional motor vehicle access to the Village. Bus service provides access to multiple points throughout Rockland County and New York City. Regional bike and pedestrian paths also provide regional access to the Village as well as recreational resources. Transportation resources are further detailed in Chapter 5.

The Hudson River and High Tor Mountain provide a diversity of habitat and open space resources. High Tor Mountain is located within High Tor State Park, which is administered by the Palisades Interstate Park Commission and is part of a complex of over 100,000 acres and more than 20 miles of uplands along the Hudson River. The Haverstraw Bay of the Hudson River has been designated a "Significant Coastal Fish and Wildlife Habitat," and provides vital habitat for the endangered Shortnose Sturgeon (*Acipenser brevirostrum*) and the threatened Bald Eagle (*Haliaeetus leucocephalus*) among other species. A network of village, town and state parks provides access to the river at Haverstraw Beach State Park in the south, the Hudson River esplanade in the Harbors neighborhood, Emeline Park at the foot of Main Street, the

Henry Hudson Quadricentennial Park at Bowline Pond, and Bowline Point Town Park at the north edge of the Village. Chapter 6 provides more information on natural resources and open space.

The Village possesses a strong industrial presence at its southern and northern ends, with the Tilcon mine processing area at the south and the Bowline energy generation facility and vacant former “Blue Beverage” bottling facility at the north. The Village has a vibrant downtown at its core, providing a wide range of retail, service, office and restaurant uses, but there is relatively frequent turnover in occupancy and a modest vacancy rate. A second commercial corridor is present along the Route 9W frontage, and is dominated by auto-accessible retail, office and restaurant uses and a preponderance of motor vehicle services. A wide variety of housing types and price points are available throughout several neighborhoods in the Village. Nevertheless, demographic data and public input indicates the need for quality affordable housing, especially owner-occupied housing. More information on land use is available in Chapter 4.

1.3 THE 1993 PLAN, SUBSEQUENT PLANNING & DEVELOPMENT

The preceding Comprehensive Plan was prepared in 1993, 26 years ago. That 1993 Plan largely recommended a land use plan that reflected the pattern of uses in existence at the time. The exception to this was recommendations for transformational changes to the waterfront as a path to revitalization. The Village's waterfront, which was previously used for a range of waterfront industry (fuel oil storage, concrete pipe manufacturing and furniture manufacturing among others) had largely fallen into blighted conditions. The waterfront would come to occupy the majority of planning attention since adoption of the 1993 plan.

Working with a private development partner, the Village refined its vision for the waterfront, culminating in the adoption of an Urban Renewal Plan in 2003 and a Local Waterfront Revitalization Program in 2005.



Haverstraw Waterfront circa 2000
Credit: Saccardi & Schiff, 2003



Haverstraw Waterfront circa 2019
Credit: Nelson, Pope & Voorhis, 2019

The 2005 LWRP and Urban Renewal Plan set the stage for the transformation of the Village's waterfront, replacing dozens of acres of deteriorated industrial brownfields with a planned mixed-use development project proposing 890 units of single-family attached and multifamily dwellings, ferry landing, marinas, and close to 100,000 square feet of restaurant, inn, retail, museum and other non-residential uses. To date 537 units have received building permits.

The planning work done between 2000 and 2005 would correspond with a national and regional surge in home prices. The median monthly home sale in the Village of Haverstraw would increase from around \$120,000 in the beginning of 2000 to \$300,000 in 2005.

The first phase of the waterfront development, known as "Harbors at Haverstraw", proceeded at a brisk pace, inducing a rise in Village single-family sales prices to reach a monthly average peak of almost \$600,000.

During this time, the waterfront development partner assisted the Village by providing lobbying, grant-writing assistance and funding for a number of planning initiatives. The Haverstraw-Ossining Ferry was started from a landing point near the Harbors at Doctor Girling Drive. Funding was also received to construct a waterfront walkway in the vicinity of the Harbors, and to construct a 500-car parking deck and relocate the ferry landing to the foot of Main Street. A brownfield off of Mackenzie Avenue was remediated and transformed into the Manny Lopez Municipal Ballfield. The waterfront redeveloper, as part of its affordable housing commitment, renovated a number of downtown apartments, provided funding for façade renovations, and partnered with the Rockland Housing Action Coalition to construct the Murphy Manor Apartments, which contain 26 units of family housing meeting HUD income eligibility guidelines.

With the "Great Recession" of 2007 and 2008, home sales would plummet until average prices returned to 2000 levels by 2014. This stalled a number of pre-recession planning initiatives including the ferry re-location and Main Street parking structure, which ultimately was abandoned due to cost. Nevertheless, the Short Clove Road overpass, which provided the Village with an improved full-time access point across the CSX railroad right-of-way at the south end of the Village, was completed.

The Village completed a number of other initiatives including construction of comprehensive streetscape improvements,

improvement of the Henry Hudson Quadricentennial Park and improvement of Clocktower Park. The Haverstraw Center was founded and later expanded to provide after-school programs and a recreational outlet to children.

The Village also has undertaken several climate smart initiatives including the installation of an electric car charging station, and efficiency improvements to government facilities and street lighting.

Housing prices have more recently recovered to 2004 levels within the Village, although the market for for-sale housing in the region remains limited. The waterfront developer has slowed the construction of for-sale housing and concentrated strictly on the construction of rental housing. Additionally, the waterfront developer has relinquished its status as the Village's exclusive redevelopment partner for a portion of the waterfront known as Sites C and D, which is located north of Emeline Park along Bowline Pond.

1.4 WHAT IS A "COMPREHENSIVE PLAN"?

A comprehensive plan is a document prepared by a local government that looks at the interrelated functions of a community, establishes aspirations based on public and stakeholder input and establishes strategies to achieve those aspirations by coordinating the efforts of local government staff, departments and regulatory boards, and to a lesser extent, those efforts of higher layers of government such as the County, State and Federal governments. At its core, a comprehensive plan is a document that sets a destination for a community and maps a course to get there.

A comprehensive plan is not required under New York State law. However, New York State law requires that zoning, if adopted by a Village, be in harmony with a "well considered plan." Generally, all actions of the Board of Trustees, departments and regulatory boards should be consistent with the Comprehensive Plan. New York State legislative statutes enacted since 1993 have required local and state

government review of local actions to determine whether they are consistent with the Comprehensive Plan. Additionally, other government agencies, whether they be adjoining communities or higher levels of government, must consider the policies and goals of the Comprehensive Plan when considering actions that may impact the Village.

Before the Board of Trustees adopts a new plan or any amendments to the existing plan, the Village will hold a public hearing in order to allow for comments from Village residents and other interested parties. This updated Comprehensive Plan will be subject to the provisions of the State Environmental Quality Review Act (SEQRA) under Article 8 of the New York State Environmental Conservation Law. Once the plan is adopted by the Board of Trustees it will remain on file in the Village Clerk's Office and County Planning Department. The adopted Comprehensive Plan shall be reviewed for relevance **REGULARLY** to ensure the document continues to adequately meet the needs of the Village.

This plan sets forth goals and objectives for the Village as a whole, divides the Village into several neighborhoods with recommendations relevant to each, and focuses further on several "strategic sites" within the Village.

This plan balances the three "E"s of sustainability – environment, economics and social equity. Balancing economic development and environmental protection while retaining and fostering the highest quality of life for the Village's residents is of the greatest importance in this planning effort. Chapter 3 of the report summarizes sustainable policies and measures proposed or promoted throughout the plan.

1.5 NAVIGATING THE COMPREHENSIVE PLAN

This comprehensive plan is arranged into 12 chapters.

Chapter 2 – Vision

Identifies the outcomes that the Village is aiming to achieve by promoting the policies and actions recommended herein.

Chapter 3 – Sustainability

Summarizes the sustainable policies and actions recommended throughout the plan, especially policies intended to mitigate greenhouse gas generation or adapt to climate change.

Chapter 4 – Land Uses & Zoning

Provides an overall land use plan, prescribing uses and scale of development on a geographic basis.

Chapter 5 – Transportation

Establishes policies and recommendations impacting how people and goods move through the community and access the region.

Chapter 6 – Natural Resources & Open Spaces

Establishes policies and recommendations for the preservation and stewardship of natural resources in the Village including wetlands, the Hudson River, the Minisceongo Creek and upland habitat. Open spaces include private open spaces such as cemeteries, institutional open spaces such as recreational fields accessory to schools, and public open spaces such as parks. While this chapter includes discussions of parks, recommendations specific to improvement of recreational facilities is generally covered in Chapter 11 (Community Services and Facilities) and recommendations regarding linear networks of open space or "greenways" are discussed in Chapter 5 (Transportation).

Chapter 7 – Economic Development

Establishes policies and recommendations for strengthening commercial and industrial activity within the Village, especially in the downtown.

Chapter 8 – Historic & Scenic Resources

Establishes policies and recommendations for the preservation and stewardship of historic and scenic resources within the Village.

Chapter 9 – Infrastructure & Utilities

Establishes policies and recommendations for the maintenance and enhancement of Village systems designed to support the various land uses around the Village including storm sewers, wastewater sewers, shoreline stabilization infrastructure, and water distribution networks.

Chapter 10 – Social Systems

Establishes policies and recommendations for improving the quality of life and social equity among the Village's diverse population.

Chapter 11 – Community Services & Facilities

Establishes policies and recommendations for the maintenance and enhancement of Village-provided services and facilities including recreation programs, public works, Village government and emergency services.

Chapter 12 – The Future

Provides recommendations for implementing, regularly reviewing and updating this Comprehensive Plan document over time.

Chapters 4 through 11 are further formatted to provide an introduction on background work conducted by the Committee in preparing this plan. The Goals to be served by the policies of each section are described. Analysis of existing conditions follows as well as broad geographic-based policies. Lastly goals are broken into topic-relevant objectives and recommendations.



2 V I S I O N



2 VISION

2.1 INTRODUCTION

VISION STATEMENT

2.2 GOALS & OBJECTIVES

Long range planning begins with a community's vision for its future. The Vision Statement provides a succinct statement against which all policies and proposals can easily be tested and is further divided into a series of Goals and Objectives around which the recommendations of this plan are arranged. While previous planning efforts looked at evolution and refinement of the Village's existing land use pattern, incorporating standard suburban practices from the region, the hallmark of this plan is a revolution and departure from such suburban development patterns in favor of re-urbanization.

2 VISION

2.1 INTRODUCTION

On January 30, 2019 the Joint Taskforce held a public workshop for the purpose of collecting background data, views and opinions from community residents and stakeholders. **Workshop 1 – Visioning, Inventory & Analysis** was the first public meeting at the outset of the Comprehensive Planning and Local Waterfront Revitalization Plan (LWRP) update process and was intended to identify public and stakeholder sentiment regarding existing conditions within the Village and also to share ideas and discover areas of shared values. This meeting was well-attended by roughly 46 members of the public and local media. Following introductory presentations by the Mayor and consultants, members of the public broke out into small groups and discussed what they believed were the Village's strengths, weaknesses, opportunities and threats.



Spanish language breakout group at Workshop 1

Credit: Nelson, Pope & Voorhis, January 2019

The key areas receiving the most expressed stakeholder interest were:

Strengths

- Diversity - class, cultural/ethnic, professional
- History
- Hudson River
- Bowline Park/parks and park access
- School district
- Vitality
- Haverstraw center
- Natural physical beauty

Weaknesses

- Perceptions of crime/poverty
- More streetlights - safety, soccer field
- No diversity of businesses/retail variety
- Outdoor soccer field needed for community
- Taxes too high/NRG lawsuit/lack of financial resources
- Downtown needs facelift/ not kept up by shopkeepers and landlords
- Litter/ home maintenance
- Lack of marketing information for residents
- Transportation to Village from NYC & Westchester
- Lack of affordable housing
- Upkeep & absentee landlords/low housing quality
- Parking/ overnight parking

Opportunities

- Riverfront/downtown redevelopment
- Connecting history, culture and art
- Leverage waterfront and Hudson River to full potential
- Tourism opportunities - history, ferry

- Opportunity to expand services - address needs of youth and families
- Diversify retail
- Sports “bubble” or indoor soccer
- Cross cultural integration

Threats

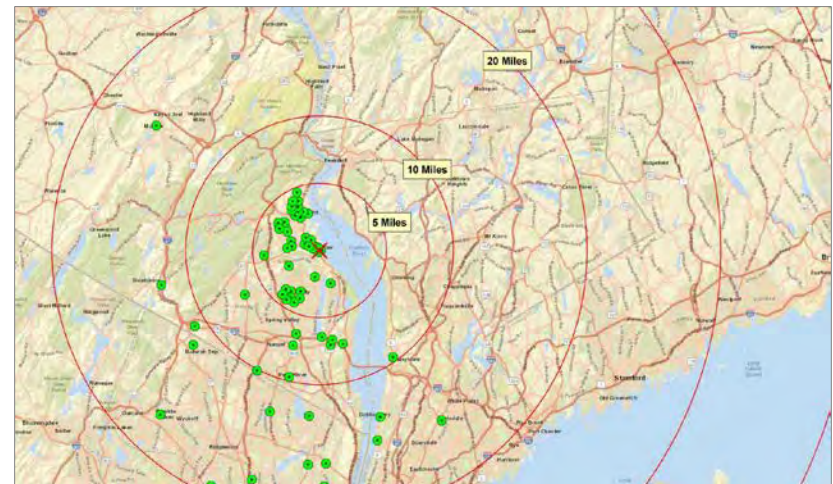
- Taxes & financial threats
- Influx of people & overdevelopment (gentrification)
- Competing interest from surrounding political jurisdictions
- Climate change, storm surge, flooding
- Lack of momentum
- Latino community's access to quality/affordable housing
- Bad reputation
- Lack of plan or incentive to invest here

A second public workshop meeting was held on February 27, 2019 to further refine the input received at the first workshop. Particularly, the Committee and consultants designed **Workshop 2 – Transportation & Land Uses** to promote input on where and how Village residents and stakeholders live, work, play, shop and learn. This second meeting was attended by 58 members of the public, who cycled among four breakout groups engaging members on their thoughts on various elements of village life.



Attendees voting on outcomes at Workshop 1
Credit: Nelson, Pope & Voorhis, January 2019

This information was then distilled by the consultant team into a Draft Visioning Report containing a series of Goals and Objectives for consideration by the Joint Committee. Also included in the Draft Visioning Report were a number of initial strategies already identified through the course of two public workshops and six meetings of the Joint Taskforce. The Joint Taskforce would continue to conduct four more public workshop on sustainability and resiliency, downtown design, waterfront opportunities, and a pop-up event at the well-attended Flavors of Haverstraw Food Crawl. This outdoor event reached out to the public for the purpose of soliciting input from a broader range of stakeholders including tourists and visitors and providing education and information to a broader community audience regarding sustainability and climate smart actions.



Excerpted portion of map showing origins of Food Crawl attendees
Credit: Nelson, Pope & Voorhis, June 2019

Also, over the eight to nine months of public outreach, the consultant team distilled several inventory and analysis reports detailing existing conditions within the Village including land use and zoning, demographics, transportation resources, natural resources and open space, utilities and infrastructure, historic and cultural resources, scenic resources, and community services and facilities.

VISION STATEMENT

The Village of Haverstraw will proudly be a culturally, economically, religiously and socially diverse and vibrant community providing outstanding housing, recreational and employment opportunities for all.

It will seek to foster interaction between diverse groups through expanded recreational, social, and educational services. It will encourage a land use pattern focused around downtown as a vibrant, multiethnic center for industry, culture and commerce.

The urban energy of the past will be re-created by fostering integration of ethnicities and cultures via development of workforce and market rate housing to meet growing demand; by inducing growth of existing and new business sectors; by generating collaborative efforts between local non-profit organizations, other nearby municipalities, the private sector and local startups; and by capitalizing on the immense natural and built environmental resources that surround and support the Village.
Haverstraw's downtown will be an urban center that allows residents and visitors alike to live, work and play locally within walking distance. Gaps in the urban fabric will be filled to round out services that residents need, like jobs and fresh food access, and increased housing and retail opportunities.

Through recognition, marketing and hospitality, Haverstraw will seek to become a premier destination for historic interpretation and cultural tourism among historic Hudson River communities.
The Village will honor and accentuate its proud past by restoring, maintaining and emphasizing its historic architecture; respecting its human scale streetscape and building massing; remembering its historical connections to the Hudson River; and preserving and expanding views of High-Tor and the Hudson River.

Haverstraw will respect its place in the world environmentally and ecologically and seek to become more climate smart - striving for increased energy efficiency and reduction of greenhouse gas emissions both due to government operations and the actions and decisions of residents and business owners within the community.
Development patterns will be promoted that are walkable, resilient and economically robust.

Opportunities for non-motorized transportation and public transit will be prioritized providing benefits to greenhouse gas emissions, public health and recreation. The Village will promote and encourage water dependent and water enhanced uses of the Hudson River including uses for recreation, transportation, industry, commercial use and enhanced residential use, while planning for increasing sea level elevations and storm intensification/rainfall.
Not only will the Village plan for higher tidal waters, but also will ensure the safety, security and resiliency of its residents by expanding local sources of food, providing heating and cooling opportunities for at-risk population and improving drainage infrastructure to disperse upland floodwaters efficiently.

Based on these existing conditions reports, public input from the six public workshops, input from surveys, and deliberations at its nine Joint Taskforce meetings, the Joint Taskforce refined and finalized its draft vision as described on the previous page, and goals and objectives as follows:

2.2 GOALS

The Vision Statement serves as the overall aspirational statement on what the Village wishes to achieve over the next ten to twelve years. Based on the statement, the plan promotes the following additional specific goals. Each broad goal is further broken into several more concrete objectives, which are presented throughout the various chapters of this comprehensive plan.

- 1. Nurture and protect the Village's authenticity as a unique place that is a product of its history and people and that serves both the Village and the region. (See also Chapters 4, 5, 8 and 10)*
- 2. Highlight the identity of the Hudson River to the Village of Haverstraw by enhancing scenic and physical connections to the river. (See also Chapters 5 and 8)*
- 3. Improve access to natural and recreational resources to all Village residents and visitors. (See also Chapters 5 and 6)*
- 4. Promote the Village's many strengths and improve the perception of the Village to the region. (See also Chapters 8 and 10)*
- 5. Improve the diversity, marketability and profitability of downtown and other Village businesses. (See also Chapters 5, 7, and 8)*
- 6. Maintain and enhance the sustainability of Village life. (See also Chapters 3, 4, and 6)*
- 7. Strengthen transportation connections, alternatives and gateways. (See also Chapter 5)*
- 8. Provide quality community services and facilities adequately to serve the needs of residents and businesses within the Village and ensure that the services are adaptable for future growth in an environmentally responsible manner. (See also Chapter 11)*
- 9. Develop and maintain a stormwater management plan, encourage a stronger waterfront with softer shoreline structures, provide support for green infrastructure and alternative energy generation. (See also Chapter 9)*



3

S U S T A I N A B I L I T Y

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- 3.4.2 Diversity & Inclusion
- 3.4.3 Community Services & Facilities
- 3.4.4 Cleaner, Greener Communities (CGC) Program
- 3.4.5 Complete Streets
- 3.4.6 Community Resilience

The Village of Haverstraw is setting its course for a more sustainable and resilient future.

This chapter summarizes how sustainability provides the foundation for all dimensions of the Comprehensive Plan, highlights key recommendations, and provides information on what the Village is already doing, such as working towards becoming a Climate Smart Community. It also describes the Village's priorities: shifting to a greener economy, protecting natural resources, reducing climate vulnerabilities, improving energy efficiency, and developing in an inclusive and vibrant way.

3 SUSTAINABILITY

3.1 INTRODUCTION

When the Village of Haverstraw decided to update their previous Comprehensive Plan from 1993, they set out as the main goal of the project “to develop guidelines for a resilient, sustainable village that will achieve its potential as a regional economic driver.”¹ The Village’s planners were requested to integrate planning for sustainability into current revitalization plans and projects and make recommendations for ensuring that sustainability is incorporated into all future planning and project implementation. As a result, this Comprehensive Plan grounds itself in sustainability in every aspect of its recommendations. Each of the areas it covers - from land use and transportation to economic development and social systems – is founded on sustainable principles. Many of its chapters also directly address planning for climate change. This chapter on Sustainability is intended to highlight some of the key recommendations for both sustainability and resiliency.

What is “sustainability?”

The United Nations (UN) articulated the most broadly accepted definition:

“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”²

As a multi-generational community where families put down roots and stay together, this definition is the one that has guided the Comprehensive Plan for the Village of Haverstraw.

3.1.1 Components of Sustainable Development

Another definition from the United States’ National Environmental Policy Act states that sustainability means “to create and maintain conditions under which humans and nature can exist in productive harmony, that permit fulfilling the economic, social and other requirements of present and future generations.”³ This definition helps distinguish what the UN calls the “three pillars of sustainability:” economic growth, environmental protection and social inclusion.* This chapter is organized around these three components of sustainability.



3.1.2 Sustainability & Climate Change Workshop: Priorities for the Village of Haverstraw

A public Sustainability & Climate Change Workshop was held on May 1, 2019 by the Joint Comprehensive Plan/Local Waterfront Revitalization Program (LWRP) Committee as part of the series of workshops and events engaging the community in the planning process. The workshop opened with information from Mayor Michael Kohut on the wide variety of sustainability programs that are already underway in the Village. Those programs range from energy efficiency, recycling, stormwater management and composting to membership in the Climate Smart Communities (CSC) program. The Coordinator of the CSC program for the Village followed by introducing the members of the newly formed CSC Committee and describing the CSC pledges and key goals. (See Section 3.1.3 Climate Change and the Village of Haverstraw below.) Then the President of Nautilus International, a member of the consulting team, provided background information about the definitions of “sustainable development” and climate “mitigation” versus “adaptation.” Mitigation means reducing the sources of climate change by decreasing the flow of greenhouse gases into the atmosphere; whereas, adaptation means adapting to life in a changing climate by adjusting to current or expected future climate.⁴



Voting at the Sustainability Workshop

Credit: NPV, May 2019

For the majority of the workshop, the community participated in breakout groups which discussed five key topics: 1) Increase Energy Efficiency: Decrease Energy Use, 2) Recycling and Materials Management, 3) Green and Sustainable Infrastructure, 4) Climate Resilience, and 5) Food Systems. (See Volume 2 for detailed information about the Community Participation Plan and Workshops.) Each participant was able to rotate to at least three of the breakout groups during the course of the evening. The workshop wrapped up with reports from each of the breakout tables on the many ideas that were discussed to create a more sustainable future for the Village.

To close out the results of the Sustainability Workshop, participants were then asked to vote on “What are your priorities today? What is most important to you and your family as we plan for the future?” The voting was weighted to distinguish items that were high priority, medium priority, low priority, and “No Thanks!” Out of the abundance of ideas, a total of 50 received at least one vote and 31 of those received at least one “high priority” vote. The top dozen community priorities overall emerged as:

1. Adopt advisory flood elevations
2. Restore Minisceongo Creek – Original stream bed and marsh
3. Expand on schools educating about reducing, reusing and recycling
4. Put a solar facility in Village – Micro grid
5. Solar panels on the School
6. Build community greenhouse
7. Protect existing/remaining wetlands
8. Centralized energy plan (NYSERDA)
9. Promote farm cooperatives: CSA=Community Supported Agriculture
10. Educate public on food sustainability
11. Educate community on growing in urban environment
12. Green roofs on institutions.

3.1.3 Climate Change and the Village of Haverstraw

How is climate change challenging the way the Village does things, and how can it become more sustainable in an uncertain future?

The Village of Haverstraw is committed to planning for the future in a way that reconsiders everything from the government's own facilities and operations to how new development opportunities are reviewed and how citizens commute to work. Within every chapter of this Plan, the specific challenges for the Village are discussed. For example, the chapter on Transportation describes how some Village streets are increasingly susceptible to flooding because of rises in sea levels as well as more severe and frequent storms. The goals of the Comprehensive Plan are to help mitigate the causes of climate change, adapt to the changes it produces, and decrease vulnerabilities to its impacts in both the short and long-terms.

Climate Smart Communities (CSC)

As part of their commitment to sustainability, the Village has embarked on a process to become a "climate-smart community." The New York State (NYS) Climate Smart Communities (CSC) program helps local governments act to reduce greenhouse gas emissions and adapt to a changing climate. The program provides technical assistance and grants to communities that have adopted the climate smart communities pledge stating their commitment to fighting and mitigating against the root causes of climate change as well as adapting to its impacts to form more sustainable and resilient communities.

The Climate Smart Communities program, which is overseen by the NYS Department of Environmental Conservation (DEC), provides a list of ten overarching climate goals:

1. "Build a climate-smart community
2. Inventory emissions, set goals and plan for climate action
3. Decrease energy use
4. Shift to clean, renewable energy
5. Use climate-smart materials management
6. Implement climate-smart land use
7. Enhance community resilience to climate change
8. Support a green innovation economy
9. Inform and inspire the public
10. Engage in an evolving process of climate change"⁵

Within each overarching climate goal, a series of more specific climate actions or "priority elements" are listed for which communities can receive points. Some of these climate actions, such as completing a "Comprehensive Plan with Sustainability Elements," are eligible for funding through the program. Throughout this document we have indicated proposals that qualify for CSC points by adding "(CSC #___)" which indicates the specific action involved.

The Village of Haverstraw has adopted the Climate Smart Pledge and is on its way to becoming a certified community. A Climate Smart Task Force and Coordinator (CSC 1.1 and CSC 1.2) has been appointed and multiple other actions have been completed, though not formally submitted for certification. This Comprehensive Plan will be submitted for consideration of CSC 6.1 - Develop and adopt a comprehensive plan with sustainability elements.

Some certified communities have even gone beyond the CSC pledge by completing and documenting a series of actions that will help the community mitigate against and adapt to climate change even further. The Village's proposed *Climate Smart Action Plan* is similarly ambitious and can be found in the Appendix B at the end of this volume. It creates a roadmap of implementation strategies and proposes timing for completing actions needed for CSC certification.

3.1.4 Recent Legislation

Two important pieces of legislation have been enacted since the Sustainability Workshop and will help the Village advance the priorities that the community identified. The first is the Climate Leadership and Community Protection Act, a far-reaching law passed by the New York State (NYS) Legislature which directly affects the Village. The second, the Climate Mobilization Act, Local Law 97 of 2019 passed by New York City, can be anticipated to have an indirect effect in the Village because it has the potential to create new jobs in the NYC metro area.

New York State Climate Leadership & Community Protection Act

This legislation, enacted on June 20, 2019, is expected to have an “extraordinary impact on virtually every sector of the State economy”⁶ because it requires that greenhouse gas emissions be reduced to 60% of 1990 levels by 2030 and 15% of those levels by 2050 across New York State. It also requires that those reductions be achieved without burdening its disadvantaged communities. The goal is net zero emissions in all sectors of the economy.⁷

According to NYS Assemblymember and Environmental Conservation Committee Chair Steve Englebright, “This bill sets New York on a course for a sustainable future by transitioning our state to clean renewable energy, unleashing the genius of American industry, and ensuring good paying jobs that work for all New Yorkers.”⁸

Some immediate implications are that fossil fuels – currently used extensively to generate electricity, heat and cool buildings, and power vehicles - will need to be discontinued in favor of renewable energy sources while at the same time energy efficiency will need to be significantly improved.

In order to implement the reductions, a Climate Action Council has been established to prepare proposals and plans about specific policies and regulations that will be put in place across all agencies.

The Council will be co-chaired by DEC and the New York State Energy Research and Development Authority (NYSERDA) with 20 other members from sectors ranging from transportation and health to economic development and community renewal. Some of the mechanics of the law are that the NYS Department of Environmental Conservation (DEC) will be issuing annual reports of emissions in terms of tons of carbon dioxide equivalents emitted and comparing those to the 1990 baseline year.

In addition, the law establishes a Climate Justice Working Group, with representatives from communities, DEC and the NYS Departments of Health and Labor. There is a methodology established in the law to identify “disadvantaged communities” and DEC is authorized to select communities for emission-reduction programs and adopt implementing regulations. There is a process to allocate a minimum of 35% of investments from clean energy and energy efficiency funds in disadvantaged communities. NYS DEC will also be monitoring air quality in disadvantaged communities and preparing a strategy to reduce emissions of toxic contaminants and pollutants.

New York City Climate Mobilization Act, Local Laws of 2019

New York City's Climate Mobilization Act, passed in May 2019 with further amendments in June 2019, limits carbon emissions on buildings over 25,000 square feet in phases by 2024 and 2030 and requires a total of 40% reductions from a 2005 baseline by 2030. Buildings account for approximately two-thirds of NYC's greenhouse gas emissions. According to Urban Green, “New York City's building emissions law, Local Law 97 of 2019, is arguably the largest disruption of the NYC real estate industry. In order to meet the challenges ahead, we must do retrofits differently, and at scale. New technologies and new business models will be needed, and labor and professional services must significantly ramp up.”⁹

With almost 60% of the City's buildings, or 50,000 buildings, affected, there is enormous potential for workforce growth in the metro area,

including in the Village of Haverstraw. David Hsu at MIT estimates that the building energy improvement industry will create 15,000 new jobs by 2024 and an additional 126,000 jobs by 2030.¹⁰ Those jobs will include workers in the building trades and HVAC technicians. (See Chapter 7, Economic Development.)

3.1.5 Overview of Previous Sustainability Planning

In addition to the CSC program at the state level, this Comprehensive Plan builds upon other plans that have been put in place to improve the sustainability of the Mid-Hudson region and earlier plans by the Village itself. These plans are described in the next two sections.

Mid-Hudson Regional Sustainability Plan¹¹

The *Mid-Hudson Regional Sustainability Plan* (the *Mid-Hudson RSP*) provides vision and performance guidance for promoting economic development, environmental sustainability and quality of life for the Mid-Hudson Region of New York State (NYS) consisting of seven counties: Westchester, Rockland, Orange, Putnam, Dutchess, Ulster and Sullivan.



An aerial view of the Mid-Hudson region with the Hudson River
Credit: Mid-Hudson RSP, 2013

As an important center in the Mid-Hudson region, the Village of Haverstraw has already committed to many of the *Mid-Hudson RSP's* key objectives: strengthening transit-supported development, implementing smart growth, shifting transportation modes to an efficient and multi-modal transit system that all users can access, achieving greater energy efficiency, and reducing fossil fuel consumption and greenhouse gas emissions. The Village is currently working within the *Mid-Hudson RSP* and has prioritized the following goals for the future:

- Increase carpool, transit and non-motorized vehicle work trips;
- decrease single-occupancy vehicle trips;
- reduce annual vehicle miles traveled;
- reduce Hudson River bridge crossings per registered vehicle;
- reduce transportation greenhouse gas (GHG) emissions per capita; and
- reduce stationary fuel consumption GHG emissions.

The *Mid-Hudson RSP* was developed based on the region's unique social, cultural and natural history and baseline conditions to summarize a great deal of research, discussion, debate and activities, and determine the meaning of "sustainability" for the region. The *Mid-Hudson RSP* was released in 2013 with the support of the Cleaner Greener Communities program (CGC) administered by NYSEDA. (See Section 3.4.3 below.) In order to adapt the overall goals of CGC and help guide the region toward a sustainable future, innovative solutions in terms of five focus areas are included: 1) land use, livable communities, and transportation; 2) energy; 3) materials management; 4) agriculture and open space; and 5) water.

Land Use, Livable Communities and Transportation

The *Mid-Hudson RSP's* goals for land use, livable communities, and transportation are to strengthen transit-supported centers by concentrating development in areas with existing services, infrastructure, employment opportunities, and multiple transportation options. It aims to create "complete" communities with conventional

characteristics by ensuring each has an appropriate balance of housing and employment opportunities, diverse services and activities, appropriate access to recreational facilities, open space, and affordable transportation options, as well as decent living environments. Reducing fossil fuel consumption and greenhouse gas emissions from transportation can be supported through creating a safe, efficient, multi-modal transit system that all users can access. Additionally, to improve the safety, integrity and adaptability of regional infrastructure, the community's existing infrastructure would be maintained while all hazards, including those related to climate change, would be taken into account in all future investments.

Energy

To improve the resilience of the energy system, the *Mid-Hudson RSP* promotes less energy and fossil fuel-intensive development while enhancing the regional economy; exponential renewable energy generation; and a resilient regional energy delivery system.

Material Management

In terms of material management, the *Mid-Hudson RSP* focuses on regional solutions to maximize material value and extend its lifecycle to achieve a self-sufficient and "zero-waste" future. Strategies include: decreasing waste generation; reducing the impact of materials transportation for disposal and recovery; increasing reuse, recycling and composting; and strengthening local market to improve materials recovery results.

Agriculture & Open Space

The vision of the *Mid-Hudson RSP* for agriculture and open space is to increase agricultural and afforestation activities in the region; improve access to sustainable agriculture and afforestation training and technology; increase food and fiber; reduce energy use and greenhouse gas emissions from farm-related activities; strengthen the economic viability of agriculture and afforestation; increase open space; and protect wildlife and biodiversity.



The Mid-Hudson RSP aims to maintain and improve water quality and aquatic ecosystems along the Hudson River.

Credit: Mid-Hudson RSP, 2013

Water

The *Mid-Hudson RSP's* goals for maintaining and improving water quality and aquatic ecosystems in the region can be achieved by reducing water use and improving the efficiency of water harvesting, treatment, and distribution systems to increase the availability of water; reducing energy use and greenhouse gas emissions at water and wastewater treatment infrastructure; improving the reliability of water treatment and distribution systems and wastewater treatment and collection systems; reducing impervious surface coverage and connecting permeable surfaces to infiltrate and treat stormwater; protecting habitat and water quality; and encouraging watershed management planning¹².

Local Waterfront Revitalization Program (LWRP) - 2004

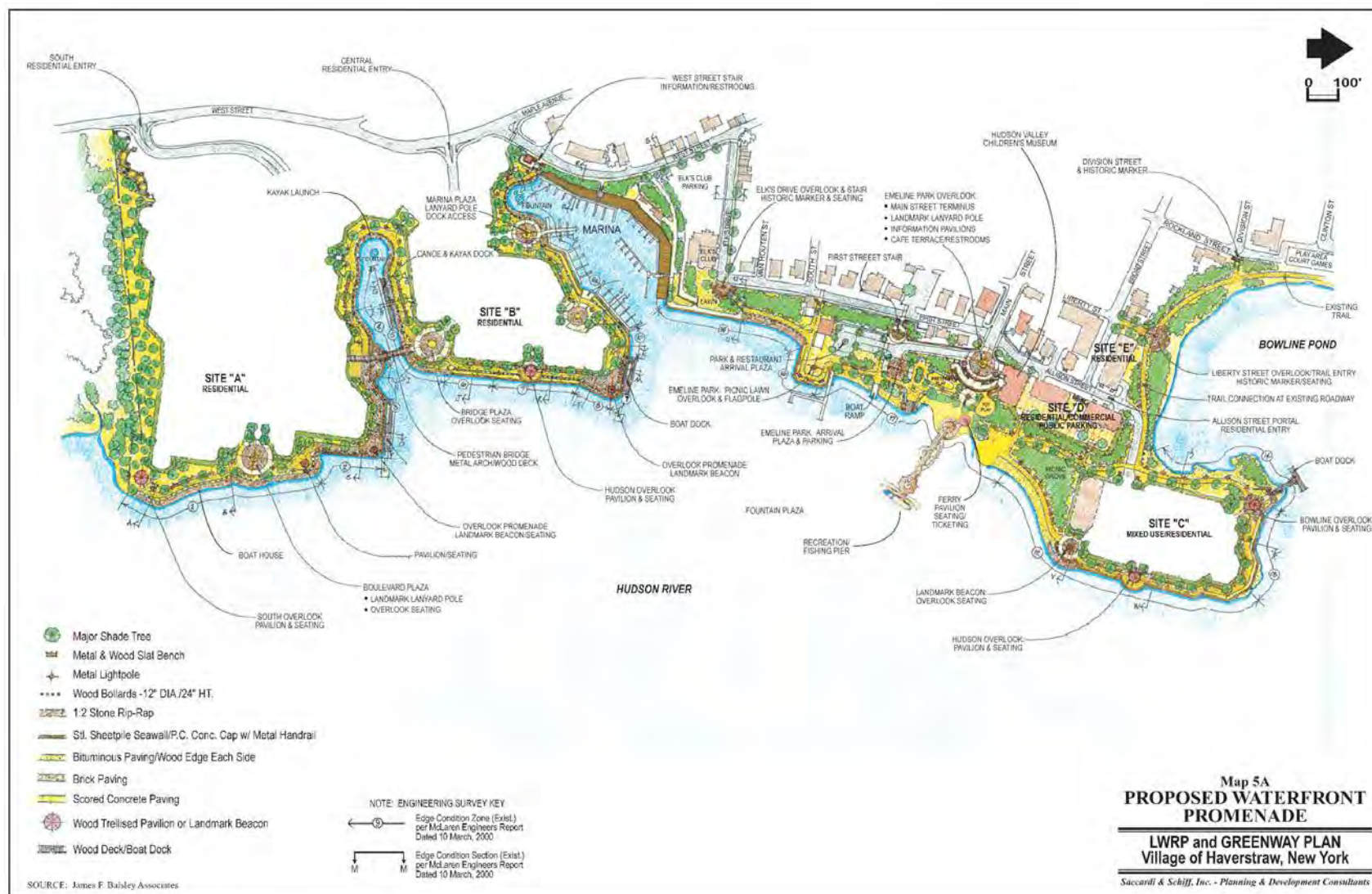
Concurrently with this Comprehensive plan, the 2004 LWRP is also being updated with the intention that the two efforts can be coordinated. The main goals of the Village of Haverstraw's 2004 Local Waterfront Revitalization Plan (LWRP) are for the Village to take advantage of its increasing public access to underutilized waterfront areas for new water-dependent and water-enhanced uses. In addition, the 2004 LWRP prioritizes revitalizing downtown areas and developing greenways. (See Chapters 4 and 5, Land Uses & Zoning and Transportation.)

The 2004 LWRP promotes waterfront promenades, recreational piers, and necessary linkages between the central business district in downtown and the riverfront for different users including pedestrians, anglers, bikers, boaters and vehicular drivers. This will provide an opportunity to utilize the waterfront as a new resource for alternative transportation modes (non-vehicular) and to attract new people to the Village and its waterfront. The Village's vision to protect natural resources such as Haverstraw Bay, a State-designated Significant Coastal Fish and Wildlife Habitat, and the High Tor area emphasize its goals of achieving sustainability in the area. The goals of local waterfront revitalization also include preventing source pollution, such as sheet erosion, and providing for all appropriate efforts to be made to ensure harmony between natural landscape and human activities.

Specifically, the 2004 LWRP establishes policies related to sustainability to protect the Village's historic culture, scenic resources, and maritime identity through: renovating historic sites, protecting significant natural resources, developing a compatible public recreation pier and waterfront at suitable sites, and providing public access. Through its policies, the LWRP also emphasizes that the program should:

- prioritize the development of existing undeveloped land or unutilized buildings;

- use non-structural measures for new development to minimize its impacts on natural resources including setbacks, vegetation planting, bluff reshaping, and flood-proofing of buildings;
- minimize the damage to human lives, natural resources and property caused by flooding and erosion hazards;
- develop continuous waterfront pedestrian and biking trails with public green space and fishing piers to promote human activities along the River;
- improve and enhance accessibility for different users to the parks, River and its water-related resources and recreational activities;
- ensure any construction or reconstruction along the riverfront (including the development of boathouses, public access facilities and other riverside structures) protect against the destruction of wave action and ice movement;
- protect and restore the viability of the significant coastal fish and wildlife habitats identified in the program and its renewable fish and wildlife resources;
- prevent hazardous materials and other possible pollutants that might cause lethal damage to the coastal or mountain resources;
- maintain shoreline stabilization along Village's waterfront and the Hudson River frontage and ensure the shoreline is not impacted by waterfront mining, excavation and dredging;
- encourage alternative innovative sanitary waste systems in the Village to avoid the high cost of conventional waste management facilities;
- consider marine waste pump-out facilities, stormwater runoff and sewer overflow draining systems during the Village's revitalization; and
- protect and improve water quality in accordance with the state coastal area policies, management objectives and relevant water quality standards as well as preserve the quality and quantity of tidal, groundwater and surface water supplies from rail transport and land development.



Original Plan of Waterfront Promenade from 2004 LWRP Identifying the Five Waterfront Development Sites (A-E)
Credit: Village of Haverstraw, 2004

Another significant component of the Village's 2004 LWRP is the recommendation of proposed land uses to revitalize undeveloped sites within the Village; provide additional public water-related recreational facilities and public access; conserve historical and scenic resources; enhance community history and character; promote economic growth for the Village; design alternative water-based transit modes; and diversify the Village's housing and employment opportunities. In addition, the Village committed in the 2004 LWRP to meet the State's goals of creating Hudson River Valley Greenway – facilitating compatible economic growth while conserving the historic and natural resources of the Hudson River Valley¹³.

Bringing together the Comprehensive Plan and LWRP, it is clear that the future sustainability of the Village – in all the interconnected aspects of its planning and growth – creates the common foundation for both to build on as they move forward concurrently.

3.2 ECONOMIC GROWTH

The Village of Haverstraw has its history rooted in being a historic regional center for the brick-building industry in the nineteenth and early twentieth centuries. This history has allowed it to prosper in the past, but also caused it to suffer from some environmental tragedies like the 1906 landslide. With today's uncertainties, it is critical for the Village to think about its economic future through the lens of sustainability. Tomorrow's economy holds many opportunities in participating in the emerging green economy and sustainable industries through retooling and attracting key resources that provide training, workforce development, equitable employment and products that allow for continued prosperity along with environmental stewardship. In addition, the Village should work to find opportunities for local entrepreneurs to integrate more into the local and regional hospitality and tourism economies.

3.2.1 Regional Economic Development Strategy

The Regional Economic Development Council (REDC) for the Mid-Hudson developed a Strategic Plan in 2011 for improving the quality of life while advancing economic development. The plan has evolved into a strategy of balancing “Live, Work, Play” in the region. The Village of Haverstraw is working within these goals and is well-positioned to contribute to their success. (See Chapter 7, Economic Development for details and more information.)

3.2.2 Land Uses & Economic Growth

A key to assessing the Village of Haverstraw's prosperity is how it develops its land. As a traditional pre-war village, most of the Village's development pattern is dense and walkable with a variety of urban and suburban housing stock. These developmental patterns are based around its history of maritime and rail industrial hubs, creating the historic characteristics of its downtown. These characteristics are shared by many Hudson River towns and communities that were all vital to the river's role in the shipping of goods to and from NYC.



Main Street on a summer afternoon

Credit: Nautilus International, June 2019

Today, the Village's waterfront has been transitioning from an industrial waterfront into a residential waterfront with public open spaces. This development has brought new residents and services but at the same time placed developmental pressures on the Village, as well as located new residents in some of the most climate-vulnerable areas. Moving forward it is critical to guide land use development to ensure equitable benefits to all villagers while responsibly protecting the investments of newly arriving residents and business owners. (See Chapter 4, Land Uses & Zoning.)

Continue to promote a sustainable mixed-use, walkable, compact-scale land use pattern. Continue the village's historic pattern of mixed-use development and walkable streetscapes. At the same time, expand access to bus and ferry stops while also enhancing the quality of service. Corner retail should be incorporated into future development along with infrastructure to support a variety of modes of transportation (transit, bikes and cars).

Preserve the hard urban/open space boundary around the periphery of the Village. The Village's hard boundary between urban and open space should be preserved. The desire to zone outlying private parcels for single-family detached housing at low densities should be avoided. The Village should work with Rockland County, Scenic Hudson and other governmental and quasi-governmental organizations to promote the preservation of outlying private parcels through acquisition or conservation easements.

Redevelop appropriate sites in the downtown with higher density multifamily residences. Allow for additional housing density in and around downtown. Several redevelopment sites (e.g. Graziosi) exist in the vicinity of downtown and would provide opportunities to grow the Village in a sustainable fashion. The Village should allow for multifamily housing at a broad range of price points in and around downtown.

Research possibilities for liveaboards and floating home communities. Liveaboard vessels and floating homes offer an opportunity for the Village to adapt to various types of housing demands while also responding to climate change. Depending on the housing market, the Village could host a variety of housing types that could range from seasonal vacation homes to permanent residences. A floating community would also create innovative opportunities to adapt to future changes of sea level and coastal erosion.

Continue to reach out and educate the community. Engage Haverstraw residents of all ages with a multilingual education initiative. Such an initiative could inform residents of rules and Village policies regarding litter, property maintenance, trash collection, street noise ordinances, recycling, community gardens and programs and opportunities available through the Village or other governmental and quasi-governmental providers. (See Chapter 4, Land Uses & Zoning.)

3.2.3 Smart Growth & Transit-Oriented Development

The Village of Haverstraw can create vibrant and lasting places by combining progressive approaches to transportation and land use planning. Growth and development should be strategically focused along key corridors and hubs that create a strong mix of commercial, residential, and work spaces with jobs in accessible locations. This density and mixed development intensity should be especially concentrated around transit hubs that have the density to generate a strong demand for diverse uses. (See Chapter 5, Section 5.2 and Map 5-2, Transportation Corridors, Opportunity Areas and Open Spaces.)

The intersections at Maple Avenue and West Street and Maple Avenue and New Main Street have the greatest potential to become new focal points for the Village. At the center of these hubs is the preservation and strengthening of the downtown, with its heart being at Main Street and Broadway. (See Chapter 5, Section 5.2.8 Maple Avenue Corridor and Hub.)

3.2.4 Wayfinding of the Future

To support economic development and growth, the Village of Haverstraw's web infrastructure needs to be modernized so that it is easier for visitors to access and enjoy all of its many businesses, restaurants and amenities. The Village should work with its businesses and other stakeholders to make sure popular online platforms like Google Maps/Open Maps are up to date and easily allow visitors to find parking and attractions when using GPS and other forms of online navigation.

3.3 ENVIRONMENTAL PROTECTION



*Painting Haverstraw Bay at the Music Festival
Credit: Haverstraw Riverwide Arts, September 2018*

The Village of Haverstraw currently does not have sustainability development principles or regulatory bylaws incorporated in existing utility and infrastructure systems; however, this Comprehensive Plan proposes that the Village immediately undertake sustainability initiatives to reduce energy and water consumption, protect its natural resources including the air, water and soils, and protect the

environment. While there is much the Village can do at a local level, it is also important to understand the environment in a broader context and to consider how the Village fits into the larger ecosystems of the Hudson River Valley, the watershed and its biodiversity.

3.3.1 Energy

At a regional level, the Regional Plan Association's (RPA) *Fourth Regional Plan* recommends using a comprehensive approach to reducing greenhouse gas emissions. "RPA recommends strengthening and expanding the existing carbon pricing system, the Regional Greenhouse Gas Initiative (RGGI), to include emissions from the transportation, residential, commercial, and industrial sectors..."¹⁴ They go on to recommend replacing carbon-intensive systems via "...a comprehensive plan to utilize emerging renewables such as wind, solar, and storage technology; integrate distributed generation; and make the grid smarter and more efficient."¹⁵

Providing energy to the Village requires a sustained energy infrastructure that mitigates emissions while providing a resilient and reliable power supply. The Village should work closely with utility providers and distributors to ensure that its electrical distribution networks are energy efficient while also redundant enough to provide grid resiliency. Identifying and relocating key at-risk energy infrastructure along with developing microgrids are also recommended. Both private and public consumers should be encouraged either to climatize their properties (insulation), invest in upgrading properties to have renewable energy generation (solar and wind power), or purchase energy from renewable sources. (See Chapter 9, Infrastructure and Utilities.)

- Develop a Village-specific energy conservation plan and green building guidelines.
- Reduce energy consumption by incorporating green building practices and alternative generation systems.

- Identify development opportunities for encouraging private and public solar panels and other forms of renewable energy generation.
- Encourage residential buildings to invest in solar water heaters to reduce the need for natural gas hot water systems.
- Work with energy utilities to safeguard distribution and generation infrastructure from potential climate vulnerabilities in the future.
- Conduct studies to determine opportunities and feasibility for district and neighborhood-scale microgrids/smartgrids and distributed energy networks to improve energy resilience Village-wide.
- Explore opportunities for district heating and cooling systems for downtown district.



Bowline Generating Station

Credit: Nautilus International, March 2019

Clean Energy Communities Program

The New York State Energy Research and Development Authority (NYSERDA) oversees the Clean Energy Communities (CEC) program to address energy challenges by providing local governments with a powerful and flexible framework to guide them in implementing high-impact clean energy projects.¹⁶ The CEC program will help local governments earn recognition and grant funding to demonstrate their clean energy leadership in implementing clean energy actions through tools, resources, and technical assistance and leadership rewards for completing clean energy projects. The CEC program is designed to help save energy costs, create employment opportunities, and improve the environment.¹⁷

NYSERDA has identified ten high-impact actions for local governments to take, including benchmarking, clean energy upgrades, LED street lights, clean fleets, solarized clean heating and cooling, unified solar permit, energy code enforcement training, Climate Smart Community certification, community choice aggregation, and Energize New York. By completing four of the ten actions, a local authority can earn the Clean Energy Community designation and apply for a grant of between \$50,000 and \$250,000 to fund additional clean energy projects. Nearly 200 communities have earned the Clean Energy Community designation.¹⁸

3.3.2 Utilities and Infrastructure

The Comprehensive Plan discusses effective planning objectives and recommendations to upgrade and manage the Village's infrastructure and utilities in order to progress towards a sustainable community. (See Chapter 9, Infrastructure & Utilities.) The Plan identifies how utilities and infrastructure can be enhanced and benefit from considering sustainable practices such as stormwater management. Details are provided on sustainability practices that the Village can progressively incorporate in its utilities and infrastructure

management plans. Some of the key practices and recommendations discussed include:

- Develop a stormwater management plan based on a watershed assessment to reduce runoff and improve runoff quality entering the Hudson River.
- Reduce net water use by incorporating practices such as rainwater harvesting.
- Encourage softer shoreline stabilization structures such as riprap, vegetated edges offering environmentally friendly options of shoreline protection.
- Develop public awareness and education programs for residents, business owners, school students, developers and Village staff.

3.3.3 Water

The Village of Haverstraw is positioned at a strategic location in the watershed. Along its south and west borders, High Tor's ridge marks a boundary where water runs off toward the Village, stepping down a series of plateaus before running off to Minisceongo Creek, Bowline Pond and ultimately the Hudson River.

Low Impact Development and Green Infrastructure principles should be adapted into urban design and streetscape design standards to create buildings, streets, and parks that can harvest and reuse rainwater for irrigation and other uses. Wastewater systems should be assessed, upgraded and monitored to ensure that wastewater effluents are not escaping the system and contaminating the water system.

Access to clean and potable water should be seen as a right to every resident in and around the Village. To achieve this goal, the Village will have to focus on finding ways to prevent pollutants from entering the water system, reduce unnecessary consumption of potable water, and find opportunities to harvest and reuse stormwater and greywater through building systems and landscape. The Village can begin by

working with its water providers and distributors to improve efficiencies in the potable water system to ensure potable water is not being wasted.

3.3.4 Air

Residents in the Village need clean air to ensure public health. Locating emission-producing land uses away from residential neighborhoods is essential. It is still possible to have employers and industry near residential communities as long as they are monitored to ensure they are not producing any harmful emissions. For areas that do suffer from high mining activities, energy-generating and transportation-related emissions, it is recommended to plant trees and vegetation that can mitigate dust and other air-borne pollution. An added benefit of pursuing a greening policy is that it will help combat the heat island effect, which will make the village a "cooler" place during heat waves.

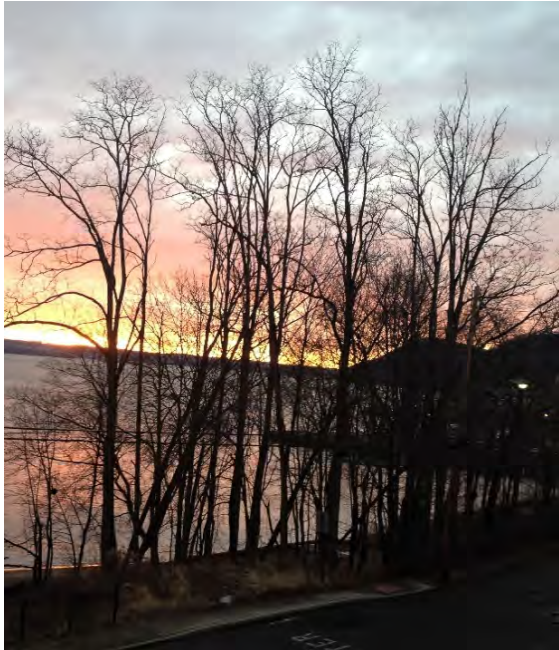
3.3.5 Soils

The Village of Haverstraw has a dichotomy of pristine areas such as High Tor as well as heavily industrialized areas along the Hudson River. Many of the industrial areas, such as the Tilcon Yards, will need their soils to be remediated. Proper management and development of these sites offers opportunities to build new public spaces that remediate soils while providing a network of new green-blue parks and recreation for the Village.

3.3.6 Haverstraw's Natural Resources

The Village's location has given it the benefit of having both the majestic mountains of High Tor and the scenic Hudson River. These two life-sustaining assets form the Village's core natural identity. If developed properly they can create a community that has the ability to enjoy both mountain and water recreation. The Village should protect all of its mountains, forests, rivers and creeks. To do this, any development that is allowed should be guided to safeguard open space and enhance public access while protecting natural resources.

Part of building truly sustainable management of natural resources includes developing a culture of community stewardship in enjoying but also caring for their environment. To build this stewardship, environmental education and engagement must be established within the community to create the appreciation needed to defend resources from unsustainable development.



*The Hudson River and High Tor at dawn
from First Street*

Credit: Nautilus International, January 2019

The Village of Haverstraw contains many significant natural resources and open space areas, primarily the Hudson River Estuary, High Tor State Park, Bowline Pond and the Minisceongo Creek; as well as both passive and active recreation areas throughout the Village. The Comprehensive Plan discusses planning objectives and recommendations to improve access to, use of and the quality of these existing natural, recreational and open space resources. (See Chapter 6, Natural Resources and Open Spaces.) By improving bicycle and

pedestrian access along with safety and connectivity to and through these resources, the Village will contribute positively to their community greenhouse gas reduction targets by reducing vehicle miles traveled, and by eliminating or reducing short car trips to access trailheads like the ones at High Tor State Park, Haverstraw Beach State Park and the Harbors Promenade.

The Comprehensive Plan also discusses the improvement and stewardship of existing natural resources through the development of an environmental education center; replanting of key floodplains, wetlands and riparian areas along Minisceongo Creek, Bowline Pond and the Harbors/Tilcon Quarry; and the incorporation of green infrastructure within streets, pocket parks and parking lots. (See Chapter 5, Transportation and Chapter 6, Natural Resources and Open Spaces.) These efforts will help to reduce the intensity of flood events and impacts of erosion, improve stormwater quality, reduce pollutants carried into the Hudson River Estuary, and reduce the impacts of climate change-induced heat events by creating shade and lowering ambient temperatures through evapotranspiration.

Details on sustainability practices that the village can progressively incorporate in its Natural Resource and Recreation management plans can be found in Chapter 6. Some of the key practices and recommendations discussed include:

- Invest in a multi-purpose environmental education center adjacent to Manny Lopez Ballfield which can run hands-on programs such as kayak and canoe outings or hands-on ecology exploration of Bowline Pond.
- Incentivize the use of living shorelines and regenerative riparian ecosystems for private waterfront development to retain, preserve, restore and enhance the existing shoreline environment.
- Involve organizations such as Hudson Riverkeeper, Cornell Cooperative Extension, NYS Office of Climate Change, NYS

Department of Environmental Conservation, Lamont Doherty Earth Observatory and other local groups to invest in the health of the Minisceongo Creek floodplain and wetland habitat.

- Discuss with High Tor State Park the feasibility of improving wayfinding to the unmarked trailhead on Dowd Street.
- Improve wayfinding signage and parking accommodations for the trail that connects to High Tor at Short Clove Road/Old Route 304.
- Improve wayfinding for Haverstraw Beach State Park at the Riverside Ave/Short Clove intersection, West Street and Maple Avenue and other areas downtown.
- Retain, preserve and restore natural environments within the Village, particularly at street ends, parking lots, shorelines and other viable public areas.
- Devise development strategies to address potential risks associated with Wildland-Urban Interface along High Tor. This can protect the Village from any potential future wild fires that could arise from changing precipitation patterns due to climate change.

3.3.7 Street Trees

Trees are one of the most effective tools to combat global warming and climate change. Streets are one of the most effective locations for a municipality to plant them. By pursuing an aggressive street tree program, the Village can mitigate carbon emissions, slow and harvest stormwater, improve air quality, provide shade to keep neighborhoods cool, reduce noise pollution, and improve the quality of life for its residents.

3.3.8 Transportation

The Village of Haverstraw has been developed in a pattern that is dense and walkable for residents. But at the same time, the Village is

not easily accessible from the region due to a combination of its mountains and rivers and its roads and freight rails. The Village will develop a transportation system that preserves and enhances its existing walkable and bikeable mobility while allowing greater ease of regional access. Both the bus and ferry systems will be developed so that they are more convenient and reliable than driving. Streets should be designed and developed so that they are safe and pleasant for biking and walking to encourage low-carbon mobility. Low-emission vehicles should be encouraged in the Village, for example, by allowing for more e-vehicle charging stations at municipal parking lots. (See Chapter 5, Transportation.)

3.3.9 Architecture and the Built Environment

The way we have designed and built our physical environment has had the greatest impact on the planet. How we plan our neighborhoods and design our buildings has serious repercussions on air and water quality, as well as public health and wellbeing. It is important that the Village adopts sustainable best practices in its building codes and design guidelines to ensure green site planning, net-zero building materials and construction techniques, and passive architectural designs. In addition, the Village should invest in training its planning officials to have a better understanding of sustainable urban design and architecture and incorporate those into the Village's design review process. (See Chapter 4, Land Uses and Zoning and Chapter 8, Historic and Scenic Resources.)

The NYSEDA RetrofitNY program also provides opportunities for implementing new solutions for renovating older buildings to save on heating and lighting costs and lowering energy usage. It should never be assumed that just because a building is old, it cannot be retrofitted in a manner that will make it as energy efficient as new construction. (For more on preservation of existing buildings, see Chapter 8, Section 8.2.4, Sustainability and Historic Preservation.)

3.4 SOCIALLY-INCLUSIVE DEVELOPMENT

The Village of Haverstraw is deservedly proud of its broad cultural, ethnic, economic, religious, generational and social diversity. Already there is a wide variety of recreational, social and educational services available in the Village to encourage interaction and inclusiveness among its residents. However, with inequality continuing to rise both nationally and regionally, the Village's current diversity cannot be taken for granted.



*The Faces of Haverstraw 2017, Community Tile Project, Village Hall
Credit: Haverstraw Riverwide Arts, September 2018*

Some of the keys to socially inclusive development and broad-based prosperity in the future will be affordability of housing, protection from displacement, educational resources, job opportunities, access to healthcare, and pathways to wealth for everyone. Many pieces of the equity puzzle are embedded throughout this Comprehensive Plan. (See Chapters 4, 5, 6, 7, 8, 9, 10, 11 and 12.) Summing up the interconnections, RPA says, "Increasing incomes is essential to solving the affordability challenge, and that requires a diverse economy with

good jobs in accessible locations for people with a variety of skills and education levels."¹⁹

Socially inclusive development also requires that there will be a process as plans are implemented going forward that builds on the success of the public community workshops and events which were part of this Comprehensive Plan's participation process. As defined by 100 Resilient Cities, being "inclusive" means to "prioritize broad consultation to create a sense of shared ownership in decision making."²⁰ Creating a permanent planning process that engages a broad range of voices in the Village is highly recommended. (See Chapter 12, The Future.)

3.4.1 Historic and Cultural Resources

Reusing a historic building, rather than replacing it with a new modern one, may be the "greenest" type of construction. Over a period of 75 years, buildings that are reused and retrofitted rather than demolished and rebuilt produce between 7% and 25% less carbon.²¹ Disposal of demolition waste and the manufacture of new building products consume a tremendous amount of materials and energy during production and transport. Recommendations in Chapter 8 include better informing Board members and staff about the benefits of building reuse, versus new construction.

Other sustainability recommendations include providing incentives for developers to use U.S. Green Building Council standards and achieve LEED certification when updating historic buildings. (See Chapter 8, Historic & Scenic Resources and Section 8.2.4 Sustainability & Historic Preservation.)

3.4.2 Diversity and Inclusion

An important sustainability objective is to make sure that changes in the Village of Haverstraw do not weaken the economic and social

diversity of Haverstraw, and that all its citizens can continue to live in the community if they so wish. (See Chapter 10, Social Systems.)

Key sustainability recommendations in this category include:

- Ensuring that a variety of housing types are available at all price and size levels;
- Offering on-street or free overnight parking remains available for residents who do not have off-street parking available to them at their residences;
- Providing opportunities for grocery shopping and more diverse retail offerings to residents within walking distance of the Village center;
- Creating a Downtown Village Business Group to serve as an umbrella organization for promotion and organization of downtown commerce;
- Provide cooling centers and/or assistance to obtain air conditioning, to ensure safety of residents during high heat events.
- Encouraging participation in Village life and governance to all members of the community.



*AfricanAmerican Connection in Emeline Park
Credit: Haverstraw Riverarts, September 2017*

3.4.3 Community Services and Facilities

The Village currently operates a variety of municipal offices including the Building Department, Justice Department, Assessor, Public Works, Fire Department, Youth & Family Services and Parks & Recreation Departments. None of these operations have existing sustainable practices. The Comprehensive Plan discusses objectives and recommendations that would encourage sustainable practices in operations and maintenance of existing community facilities and services. (See Chapter 11, Community Services & Facilities.) Practicing and incorporating principles of sustainability would also set standards and examples of sustainable operations. Some of the key objectives and recommendations include:

- Reduce operations and maintenance cost of community services and facilities by incorporating practices such as periodic energy audits to identify areas of inefficiency and alternatives for reducing energy consumption.
- Explore feasibility of generating renewable energy such as installing solar panels at large Village-owned buildings.
- Provide facilities that are environmentally responsible, equitable and adaptable.

3.4.4 Cleaner, Greener Communities (CGC) Program

The Cleaner, Greener Communities (CGC) Program empowers regions to develop sustainability plans, implement projects that significantly improve their community economies, and develop regional strategies for sustainable growth in fields like carbon emissions reduction, energy efficiency, renewable energy, and low-carbon transportation development.²²

The CGC Program was established by the New York State Energy Research and Development Authority (NYSERDA) at the regional level in 2013 to improve the environmental and economic health of the counties, enhance smart sustainable development across New York,

support communities for a more dynamic future while in the meantime reducing development impacts on natural resources and the environment. The CGC Program could be used as a regional decision-making and investment guidance for local authorities at different levels in terms of land use, housing, transportation, infrastructure, energy and environmental practices. It aims to support projects with less greenhouse gas emissions and more energy saving. Additionally, the CGC Program aligns with the strategy of the Regional Economic Development Board (REDC) to create more prosperous New York communities and improve people's quality of life in New York.²³



Yarn Art

Credit: Haverstraw Riverwide Arts, September 2018

3.4.6 Complete Streets

The Complete Street Act (the Act) requires state, county, and local authorities to consider the accessibility of all users when developing state and federally funded transportation projects. The Act provides opportunities to expand existing programs and work with cyclists, pedestrians, people with disabilities and others to identify the best transportation approaches and facilities²⁴. (Also see Chapter 5, Transportation.)

The Village of Haverstraw is located within Rockland County and is subject to the County's Complete Streets Policy, whose purpose is to create active life opportunities which promote health, safety and

quality of life across the county through building a complete street or transportation network. The policy also considers high-risk groups such as low-income people, adolescents, the elderly, the disabled and others.²⁵ All users of all abilities should benefit from all modes of transportation on the roads of Rockland County. The policy can be used to guide decision-makers to formalize the planning, design, implementation, operation and evaluation of street projects.

3.4.7 Community Resilience

When all three aspects of sustainable development - economic growth, environmental protection and social equity - come together resilient communities are one of the many rewards. What does "resilience" mean when it is applied to a village?

100 Resilient Cities (100RC) defines urban resilience as "the capacity of individuals, communities, institutions, businesses, and systems within a city to survive, adapt, and grow no matter what kinds of chronic stresses and acute shocks they experience."²⁶ The Village of Haverstraw can plan ahead for many types of events like fires and flooding, and for cycles like economic and development downturns. It can also create redundancy in systems such as energy generation and critical infrastructure. But other challenges can arise without warning, like a severe storm, or can creep up unnoticed over time like rising addiction rates. What matters most in these cases is the resilience of the community to respond resourcefully and robustly so everyone can continue to adapt and grow.

The benefits of resilient communities are described by 100RC as a "resilience dividend." Whether the development cycle is up or down in the Village, "Applying a resilience lens leads to better designed projects and policies that address multiple challenges at one time, improving services and saving resources. This is known as the resilience dividend – the net social, economic and physical benefits achieved when designing initiatives and projects in a forward-looking, risk aware, inclusive and integrated way."²⁷

¹ Village of Haverstraw, Request for Proposal: Preparation of Update of the Village of Haverstraw Comprehensive Plan: Climate Smart Planning for the 21st Century, page 2. May 2018.

² United Nations. Our Common Future, Brundtland Report. 1987.

³ United States Environmental Protection Agency, National Environmental Policy Act, 1969.

⁴ NASA Global Climate Change. Solutions: Mitigation and Adaptation. <https://climate.nasa.gov/solutions/adaptation-mitigation/>. Accessed May 2019.

⁵ New York State Department of Environmental Conservation (DEC). Climate Smart Communities Program.

⁶ Healy, J. Kevin and Philip Karmel of Bryan Cave Leighton Paisner. New York State Climate Leadership and Community Protection Act. www.jdsupra.com/legalnews/new-york-state-climate-legislation. June 24, 2019. Accessed September 30, 2019.

⁷ Heastie, Carl E., Assembly Speaker. New York State Assembly. Press Release, "Assembly Passes Climate Leadership and Community Protection Act," June 20, 2019.

⁸ Ibid, pg. 1.

⁹ Urban Green. "Retrofit Market Analysis," June 18, 2019.

¹⁰ Hsu, Ph.D., David. Massachusetts Institute of Technology. Estimate made using the U.S. Bureau of Economic Analysis's economic impact model (RIMS 11).

¹¹ Mid-Hudson Planning Consortium. Mid-Hudson Regional Sustainability Plan. 2013.

¹² Ibid.

¹³ Village of Haverstraw. New York State Department of State, Division of Coastal Resources. Village of Haverstraw Local Waterfront Revitalization Program. Adopted October 25, 2005.

¹⁴ Regional Plan Association (RPA). The Fourth Regional Plan, "Key Recommendations." 2018, page 10.

¹⁵ Ibid, page 13.

¹⁶ Renewable Energy World. NYSERDA's Clean Energy Communities Program Provides Funding and Technical Assistance to Support Local Clean Energy Development.

<https://www.renewableenergyworld.com/ugc/articles/2018/06/29/nyserdas-clean-energy-communities-program-provides-funding-and-technical-assistance-to-support-local.html>. Accessed 1 August 2019.

¹⁷ Ibid.

¹⁸ New York State Energy Research and Development Authority (NYSERDA). Clean Energy Communities Program Guidance Document http://www.co.ontario.ny.us/AgendaCenter/ViewFile/Agenda/_09212016-732?MOBILE=ON. Accessed August 2019.

¹⁹ Regional Plan Association. The Fourth Regional Plan. "Executive Summary," page 14.

²⁰ 100 Resilient Cities. "Characteristics of Resilient Systems." <https://www.100resilientcities.org/resources/>. Accessed October 27, 2019.

²¹ Sefaira. "Why Retrofitting Historic Buildings Is Well Worth It." <https://sefaira.com/news/why-retrofitting-historic-buildings-is-wellworthit/#> Accessed October 2019.

²² The New York State Energy Research and Development Authority (NYSERDA). CLEANER, GREENER COMMUNITIES PROGRAM Initiative Level Logic Model Report, Accessed August 1, 2019.

²³ Ibid.

²⁴ New York State Department of Transportation. New York State Complete Street Report. https://www.dot.ny.gov/programs/completestreets/repository/Complete%20Streets%20Final%20Report_NYSDOT.pdf. Accessed 1 August 2019

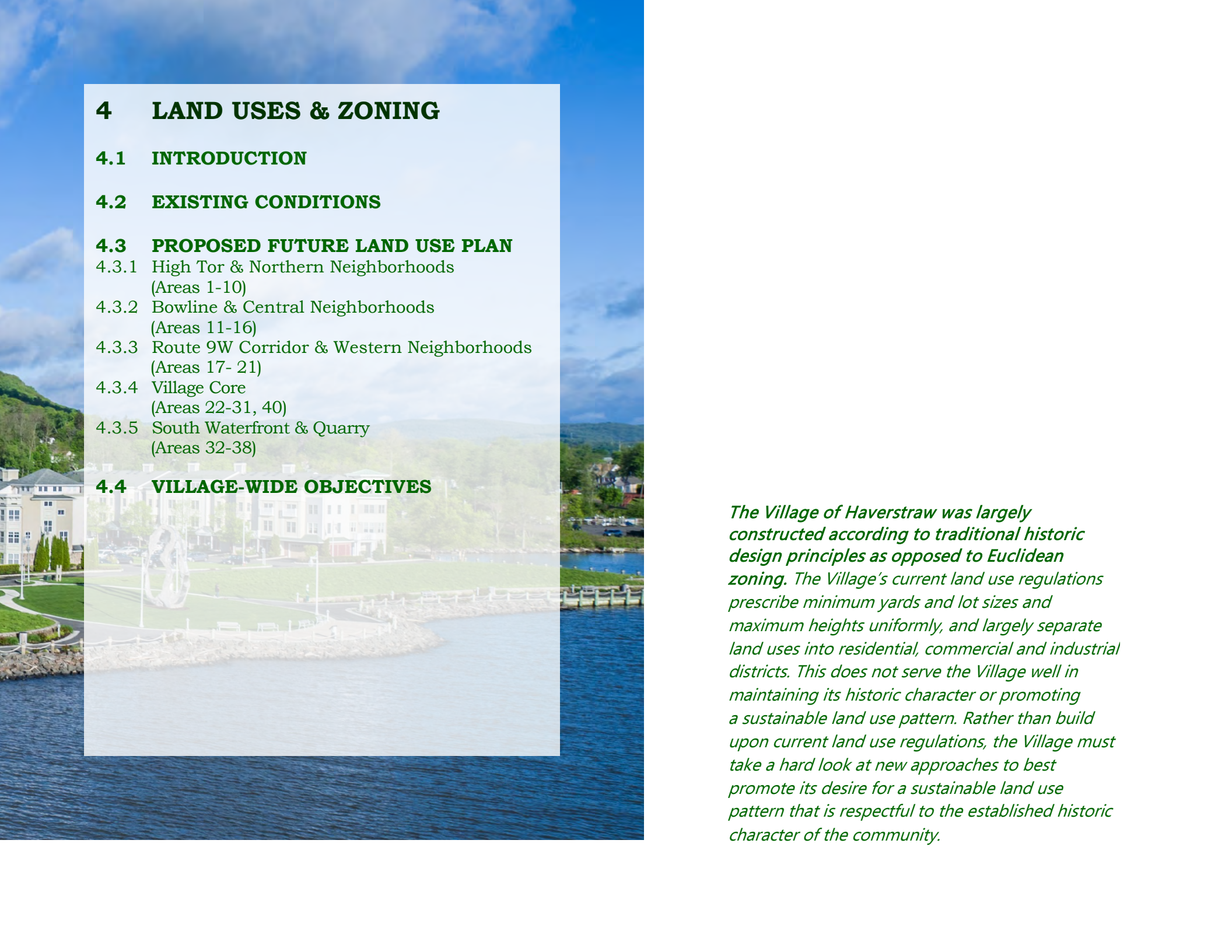
²⁵ County of Rockland, New York: Complete Streets. <http://rocklandgov.com/departments/health/programs-and-services/complete-streets/>. Accessed 15 August 2019.

²⁶ 100 Resilient Cities. "Characteristics of Resilient Systems." <https://www.100resilientcities.org/resources/> Accessed October 27, 2019.

²⁷ Ibid.



4 LAND USES & ZONING



4 LAND USES & ZONING

4.1 INTRODUCTION

4.2 EXISTING CONDITIONS

4.3 PROPOSED FUTURE LAND USE PLAN

- 4.3.1 High Tor & Northern Neighborhoods
(Areas 1-10)
- 4.3.2 Bowline & Central Neighborhoods
(Areas 11-16)
- 4.3.3 Route 9W Corridor & Western Neighborhoods
(Areas 17- 21)
- 4.3.4 Village Core
(Areas 22-31, 40)
- 4.3.5 South Waterfront & Quarry
(Areas 32-38)

4.4 VILLAGE-WIDE OBJECTIVES

The Village of Haverstraw was largely constructed according to traditional historic design principles as opposed to Euclidean zoning. The Village's current land use regulations prescribe minimum yards and lot sizes and maximum heights uniformly, and largely separate land uses into residential, commercial and industrial districts. This does not serve the Village well in maintaining its historic character or promoting a sustainable land use pattern. Rather than build upon current land use regulations, the Village must take a hard look at new approaches to best promote its desire for a sustainable land use pattern that is respectful to the established historic character of the community.

4 LAND USES & ZONING

4.1 INTRODUCTION

The area comprising the Village of Haverstraw was already settled by the Rumachenanck Lenape people at the time that Henry Hudson first explored its environs in 1609¹. The area would be settled by Europeans by the mid-1600s and has been continuously occupied since. Jacob Van Dyke would be credited with making the first brickmaking yard in North America in Haverstraw in 1771². Brickmaking yards would pop up on both sides of the Hudson River to satiate the burgeoning demand for brick in the growing metropolis to the south.

The area was incorporated into the Village of Warren in 1854 and renamed Haverstraw in 1874³. By that time, the brickmaking industry was in its heyday and there were massive pits and brickyards all along



Haverstraw Brick Yards and Waterfront at turn of the 20th century
Credit: Haverstraw Brick Museum, 2019

the shoreline. Brickyard owners and executives built mansions in the hills overlooking the River (now Hudson Avenue and Route 9W), while smaller homes leapt up throughout the areas surrounding Main Street and Broadway. In 1906, a whole neighborhood slid into a clay pit just east of Broadway and north of Jefferson Street, reshaping the geography of the Village⁴. This clay pit would eventually be opened to the Hudson River to form Bowline Pond.



Area of Brickyards and Waterfront in 2019
Credit: Nelson, Pope & Voorhis, LLC, 2019

With technical advances in building construction from the elevator brake to steel frame construction, the demand for Haverstraw brick in New York City would begin to wain at the turn of the 20th century, leading to economic decline in the Village. Other industries from textile manufacturing to furniture assembly and concrete pipe manufacturing would supplant brickmaking as the principal industries in the Village. As the 20th century advanced, these other industries would also decline and/or depart as transport costs declined and international trade barriers were removed. Today, the Village's sole industrial waterfront users are the Bowline energy generation facility and the Tilcon mine processing area.



Haverstraw Main Street looking west from Broadway at turn of 20th century
Credit: Village of Haverstraw, 2019

Nevertheless, the Village's land use pattern, born from the successful brickyards along the Hudson River, largely remains. The central business district along Main Street and Broadway has largely survived intact. Several building facades have been covered with aluminum, vinyl and other lower-maintenance cladding, and several storefronts have been converted to residences, especially on Main Street east of Third Street in the areas closest to the River, but the bones of the original thriving downtown remain intact as does the mixed-use character.

Residential neighborhoods dating back to the 1800s have also survived in the areas surrounding the downtown. These neighborhoods contain an eclectic mix of single-family detached residences, two-family residences and multifamily residences, often interspersed with the occasional corner store, or non-residential use. Newer neighborhoods sprang up around the Route 9W corridor which parallels the former West Shore rail line, now operated as a freight line by CSX Railroad.

Urban renewal in the early 2000s cleared vacant brownfields along the waterfront and new premium housing referred to as the "Harbors" was constructed on the former site of a concrete pipe manufacturer. A former fuel oil depot was cleared and it along with a parcel to the north was transformed into parking for a ferry. The former Empire Chair Factory was demolished and its site leveled to make way for further waterfront residential development.



Haverstraw Main Street looking west from Broadway in 2005
Credit: Nelson, Pope & Voorhis, 2005

Like many Hudson River villages and small cities, Haverstraw has transitioned from a major employment and commercial center to a bedroom community with a vestigial downtown that suffers in competition with regional commercial corridors that afford better vehicular access. In comparison to many of these other communities, however, Haverstraw benefits from a sizable segment of its resident population that do not own individual motor vehicles and therefore rely on and support the range of retail and services offered in the central business district. Additionally, its range of authentic Latin American and Caribbean restaurants have made the Village a destination for dining.

4.2 EXISTING CONDITIONS

A full analysis was conducted of land use and zoning in the Village and is included as part of Volume 2. A development potential analysis is also provided. These analyses made the following key conclusions:

- the Village of Haverstraw has a dense downtown with extensive mixed use and multifamily elements compared to other Rockland County villages;
- the Village also contains extensive natural open space and developed park resources, both at its waterfront with Emeline, Bowline and Haverstraw Beach Parks and at High Tor State Park at its western mountainous boundary;
- relatively few large vacant parcels are available for new “green field” development;
- most economic development opportunities are at redevelopment sites;
- some non-conforming multifamily uses have been noted in zoning districts currently designated for lower residential densities;
- the waterfront development zoning district area provides the greatest immediate opportunity for development in the next ten years, with several projects already in the planning pipeline;
- downtown is well served by numerous convenience stores but lacks a large grocery;
- diversity of retail offerings is limited, and the downtown contains a relatively large number of personal services establishments; and
- the Downtown restaurant sector is strong.
- The following goals involve land use. It is noted that many of the objectives throughout this plan's many chapters also require implementation through land use regulation and policy (such as objectives regarding expanded recreation or the construction of a new transit hub). While not explicitly listed here, these objectives were accounted for in developing the proposed land use plan.

Goal 4: Nurture and protect the Village's authenticity as a unique place that is a product of its history and people and that serves both the Village and the region

In the following sections, the plan details recommendations for specific areas within the Village to address the goals.

4.3 PROPOSED FUTURE LAND USE PLAN

Based on extensive public input, consideration of existing conditions and extensive deliberation by the Joint Taskforce, the proposed future land use plan divides the Village into 40 land use areas based on their common existing character and/or potential for future use and policy implementation as shown on Figure 4-1, Proposed Land Use Areas and described below.

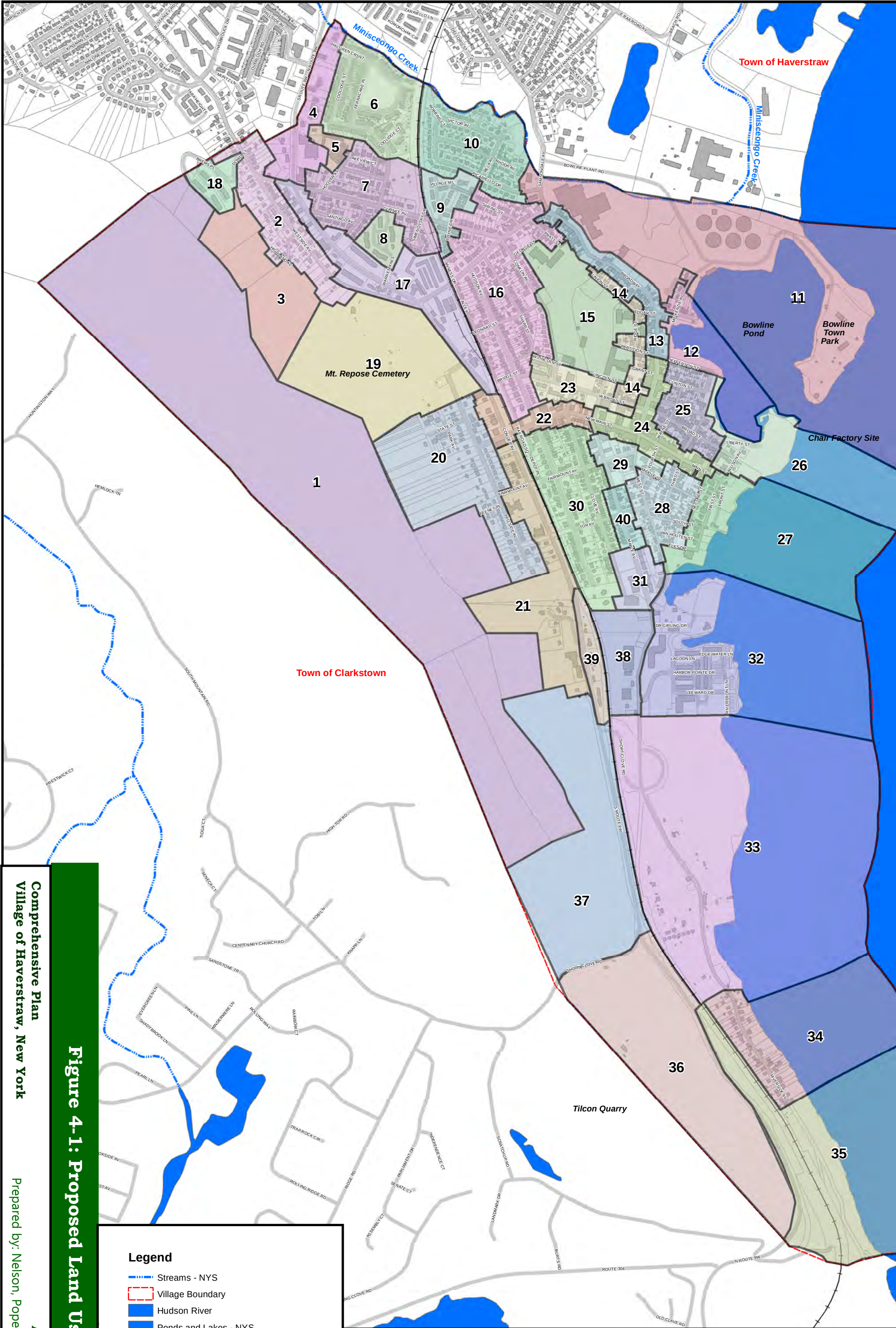
4.3.1 High Tor and Northern Neighborhoods

Area 1 – High Tor State Park

This area comprises lands owned by the State of New York and being managed by the Palisades Interstate Park Commission (PIPC). This area includes High Tor State Park and the Long Path interstate trail. Construction and use of land within this area is under the direct governance of the PIPC and the Village's land use recommendations for this area are therefore academic except for the purpose of guiding future state actions in this area.

The Comprehensive Plan recommends that this area be preserved to a large extent as open space, and that no significant development or structures be constructed in Area 1 that would adversely impact views of High Tor from the Village, especially downtown.

The Village wishes to increase access to High Tor State Park to its residents, many of whom do not travel by individual automobile. It is worthwhile noting that a previous initiative by the developer of the Harbors at Haverstraw redevelopment project of providing a cable-car



Comprehensive Plan
Village of Haverstraw, New York

Figure 4-1: Proposed Land Use Areas

August, 2019
Prepared by: Nelson, Pope & Voorhis, LLC

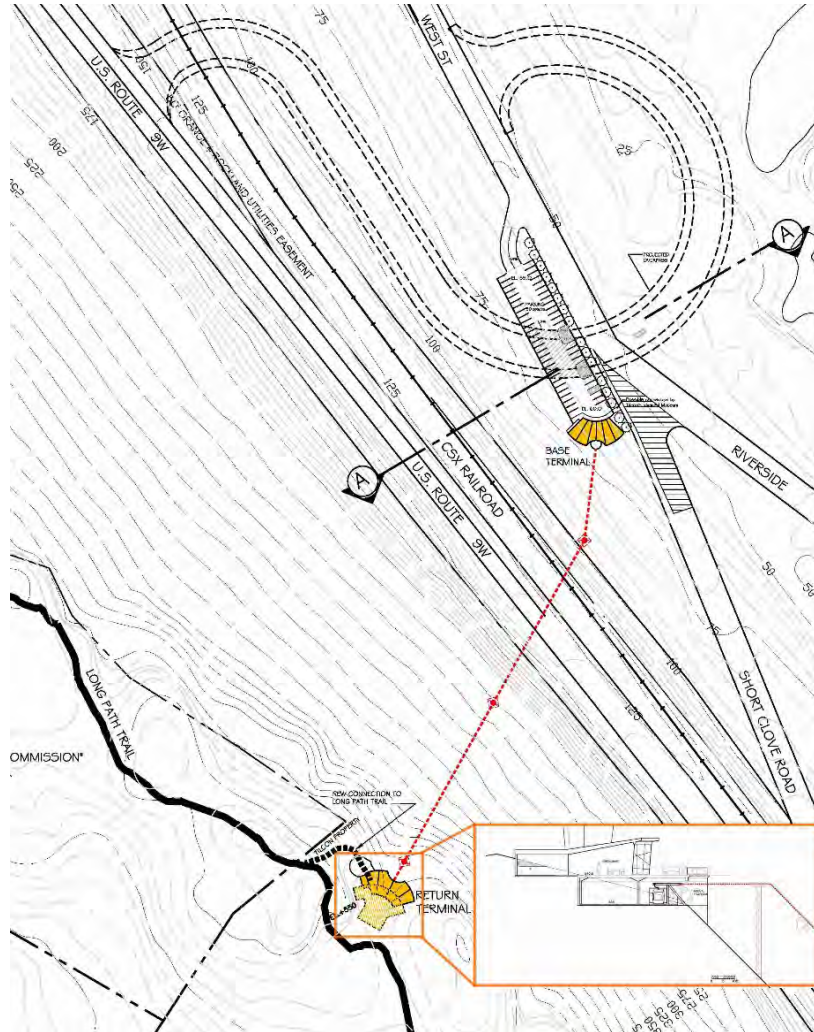
Legend

- Streams - NYS
- Village Boundary
- Hudson River
- Ponds and Lakes - NYS
- Buildings
- Tax Parcels - Town of Haverstraw
- Streets
- Railroad



Source: ESRI Web Mapping Service;
Rockland County GIS; NYS GIS
August 2019

1 inch = 1,000 feet



Proposal for Cable Car from Long Path to Short Clove Overpass

Credit: Edward M. Weinstein Architects & Planners, June 2006

to High Tor State Park for the purpose of opening up the outstanding views of the Hudson River to a greater population with a wider range of personal mobility was reportedly rejected by the State. This proposal was made approximately 15 years ago and the reported concerns of the State revolved around the ability to properly protect

the ecology of the park and the security of visitors to the area based on the increase in visitation that would result with this proposal.

The Village supports innovative means of opening up High Tor State Park to its residents with both physical and economic limitations on mobility. Should a similar proposal be advanced in the future, the Village would like the State to consider the success of such venues as the Walkway Over the Hudson and their ability to connect people of all ability levels with Hudson River views.

Area 2 – Westside Residential

This area comprises a mix of classic Italianate and Colonial Revival homes interspersed with more contemporary styles, primarily built as single-family homes, but in many cases broken up into two or more units. The area is dominated by vehicular traffic along US Route 202/Westside Avenue and would benefit greatly from sidewalks. The primary issue is livability of homes so close to the roads, which is complicated by the use of many of the homes in this area as investment properties and over-paving of front yards and parking in required front yards. A few structures in this area may be candidates for landmarking.

Area 3 – High Tor North Face

This area is dominated by steeply sloping privately-owned and Village-owned land. This area is not as visible or impactful to views of High-Tor from the Village as areas to the south. It is likely that this area will eventually become subject to residential development pressure. This area may be a good candidate for planned open space development, with multifamily structures clustered close to Dowd Avenue; however, visual impacts to the surrounding open space must be minimized. This is also a possible location for a stealth mobile telecom tower that could provide revenue for the Village and provide service to a broad area of the community. Lastly, the Village-owned lot in this area could provide a possible parking area and local access to the Long Path Hiking Trail.

CC-C Existing conditions

- Redundant and excessive driveways
- Discontinuous sidewalks
- No pedestrian connections to building entrances
- Random building placement
- Parking between road and building entrances



CC-B Phase I: Access and streetscape improvements

- Eliminate redundant access
- Promote cross-access agreements to reduce driveways
- Develop new sidewalk and landscaping standards
- Create new sidewalks along roadway and between roadway and building entrances



CC-A Phase II: Redevelopment

- New buildings and additions are located along a uniform "build-to" line
- Uniform landscape and streetscape standards for setback zone
- Parking is located to the sides and backs of buildings
- On-street parking, where possible, helps calm traffic
- New car and pedestrian connections to surrounding neighborhoods



Photo simulation showing progressive redevelopment of commercial corridor



Existing condition



Public realm improvements:
landscaping, sidewalks, lighting,
reduced pavement width.



Images courtesy of New Jersey Office of State Planning
Sidewalk-oriented development

Excerpt from Orange County Design Manual

Credit: Orange County, Lincoln Institute of Land Policy, Regional Plan Association, July 2010

Area 4 – Route 9W North

This area is currently dominated by highway-based commercial including a produce and fish market, and multiple fast food venues with a typical parking-forward site arrangement. A self-storage facility recently received approval and provides a more building-forward arrangement along with an architectural look that better complements traditional area industrial building styles.

A few nice single-family homes on large lots front on US Route 9W. The Village in the last three years adopted amendments to its zoning to allow a specialty kennel in a converted home in this area, indicating its desire to accommodate commercial uses that might not fit into the traditional fabric of the downtown.

This area should be expanded and beautified with larger floor-plate infill development, including non-residential retail/commercial or office, or multi-family residential and mixed-uses, that relies on good regional transportation access and/or benefits from pass-by traffic. This area should be studied for its potential to facilitate an aesthetic connection to downtown Haverstraw and the residential neighborhoods there.

Appropriate infill may include a first-floor non-residential component such as retail, markets or convenience marts, office spaces and other commercial uses, and up to two floors of residential apartments above. Uses such as restaurants with drive-throughs, gas stations and auto-related uses, convenience marts, self-storage, and medium-format retailers (10k to 50k SF) need not be discouraged, but site design guidelines should integrate these uses with infill.

Site design guidelines should be considered to improve the pedestrian-friendliness of the area and promote a building-forward, visually interesting environment. These guidelines should focus on controlling the number of curb cuts permitted per development and shared access; landscaping the median between Route 9W and development, particularly by introducing street trees; and requiring

the addition of sidewalks for infill development. The Village may consider drawing inspiration from the Orange County Design Manual (see inset page 4-7) as to how to craft these design guidelines relative to commercial corridors.

Pedestrian improvements would serve the Village, especially if a Minisceongo Creek greenway provides better access to the interior areas of the Village. Over the longer-term, with better pedestrian access to the Village downtown, this area may be able to support multifamily housing.

Area 5 – Hoover Avenue Industrial

This area contains industrial uses that conflict with nearby area residences. Over time, this area should transition to residential or live-work spaces with the existing commercial uses permitted to continue. Adaptive reuse would be appropriate for these buildings as well. Alternatively, if better direct road access out to Route 9W can be arranged, truck traffic could be restricted from Hoover Avenue, and this heavy commercial use could continue in a more compatible manner with the surrounding residential neighborhood. The Village may want to inquire with area owners about the possibility of providing access easements or a road to access this area.

Area 6 – Village on the Green

This area contains a stable neighborhood of attached housing. No change to land use is proposed. The Village may wish to take ownership of the Green and maintain it as a park if the opportunity arises.

Area 7 – Gurnee Avenue Gateway

This area comprises an eclectic mix of capes, classic Italianate and Colonial Revival gable-front homes, some multifamily and some more modern styles recently constructed on Santiago. A few scattered homes may be candidates for landmarking. Generally, this area would

benefit from zoning that reflects the current built form and prescribes similar lot layouts for reconstruction and infill.

Area 8 – Warren Knolls Apartments

This area is a stable neighborhood of multifamily housing. No change to land use is proposed.

Area 9 – Village Mills and Coyne Drive Townhouses

This area is a stable neighborhood of multifamily housing. No change to land use is proposed. Village Mills may be eligible for landmarking.

Area 10 – Picariello Drive

This is a stable neighborhood of high ranches. The interface of this neighborhood with Samsondale Road impacts the character of the neighborhood. Uses along Samsondale in this area should respect the entry to this neighborhood and provide screening and landscaping to obscure views of heavy commercial activity. This neighborhood abuts the Minisceongo Creek and would benefit from a Minisceongo Creek trail. Similarly, such a trail would end up traveling past back yards in this neighborhood, and fencing should be provided as necessary to maintain privacy and security. The Village should consider ways to encourage reinvestment in this neighborhood and permit or regulate two-family conversions such as mother-daughter apartments.

4.3.2 Bowline and Central Neighborhoods

Area 11 – Northern Industrial Area

This area has a long history of industrial use and includes the current Hornicks/Blue Beverage building, Bowline Oil Tanks, Bowline Point Pond, MCM Excavating, and the proposed DPW site. The Hornick/Blue Beverage site should be reserved for economic development and that which creates local jobs. Potential acceptable uses include sound stage or set design and building, offices, workshops for green infrastructure and technology such as solar installation, green industry or incubator/flex space, and other light industrial/residential mixed-use.

Incentives could be provided for green jobs such as providing a density bonus or tax incentive. Elevation of the site may support a building where the ground floor is used for parking, upper floors fronting on Broadway are used for retail commercial with second-floor apartments, and the back portion of the site is used for non-residential such as clean/green industrial uses.



Hornicks/Former Blue Beverage Building

Credit: Nelson, Pope & Voorhis, 2019

Potential contamination issues should be anticipated at the Bowline tank farm and the area may require remediation prior to future re-use in the event that Bowline plant ceases operation. Future flooding of Bowline Point Road and Mackenzie Avenue due to sea level rise should be anticipated and residential uses of these areas should be avoided; however, innovative marine uses may be appropriate here such as hosting barges which may be moving green energy infrastructure (wind turbines) up-river and other similar water-borne logistics. It should be required that uses on Bowline Pond and at the Blue Beverage site be non-polluting and intended to advance a green economy.

Area 12 – Little Italy

This area comprises a small, stable neighborhood of small homes. No land use changes are necessary, though innovative hospitality such as

bed and breakfast accommodations may be appropriate for economic development. This area will be an important linkage from HHQP to Bowline Point Park and the network of town and county parks to the north as well as to facilitate waterfront and water-dependent recreation. This neighborhood is susceptible to impacts due to sea level rise, therefore new development should consider and avoid areas of projected floodplains. The church at the end of Warren Court and a few other structures may be good candidates for landmarking.

Area 13 – Broadway North

The architectural integrity of this area has been diminished by vinyl cladding, replacement of original windows with undersized windows and the enclosure of porches. Some storefronts of mixed-use buildings have been converted to apartments. It appears that there is not enough retail demand to continue the downtown past Warren Avenue, although interspersed local convenience uses could still be appropriate. There are only intermittent sidewalks on the east side of the road, and opportunities to complete missing linkages should be explored.

Regardless of future use, the Village should attempt to replicate a pedestrian-friendly streetscape on the east side of the road out through Samsondale Avenue. This area presents a few good candidates for landmarking, and strong opportunity for rehab of facades to improve historic integrity. The Village should consider the value of strong design guidelines that could evolve into a form-based code and establish maximum lot widths and maximum setbacks to mimic the traditional neighborhood flavor of the existing community.

Area 14 – Small Neighborhood Enclaves

The small neighborhood enclaves north and west of Broadway that border the "Central Park" area contain a surprising mix of excellent historic structures and structures that have been modified in a way that undermines their historic integrity. There are strong candidates for landmarking and strong opportunity for rehab of facades to improve historic integrity. Design guidelines and/or form-based codes

would provide better protection for the character of these areas than the existing standard Euclidean zoning alone.

Area 15 – "Central Park"

This area contains Haverstraw Elementary, BOCES (formerly Neary Elementary), St. Peter's School, Franciscan Sisters, Haverstraw Community Center, Haverstraw Community Garden, and school playing fields accessible to residents. These buildings should be considered for installation of rooftop solar panels either to power the buildings themselves or to contribute to a community solar program.

Consideration should be given to converting the existing garden to a greenhouse with better internal security. The Village should work with the North Rockland School District to provide better drainage for fields and reconfiguration of fields to improve capacity. Transfer of ownership to the Village should be explored. Residents have expressed an interest in formalizing the large open field into a more landscaped park that provides both passive and active recreational space. This will aid in addressing existing drainage issues, as well as provide a multi-generational draw to the area. Haverstraw Elementary School is a strong candidate for landmark. Neary Elementary and St. Peter's School may also be landmark candidates as intact examples of more contemporary school styles.

The Village-owned parking lot along West Broad Street at the south end of this area presents strong opportunities for redevelopment. Concepts could include a mixed-use building with incorporated structure parking, and this would be a good candidate for construction of a larger grocery store. Additional parking should not reduce the potential for active recreation in this area.

Area 16 – Hudson Avenue North

This area contains strong candidates for landmarking and strong opportunities for rehab of façade to improve historic identity. This area maintains a pedestrian-friendly streetscape with short setbacks, front porches and sidewalks. Design guidelines and/or form-based codes

would provide better protection for the character of these areas than the existing standard Euclidean zoning alone.

4.3.3 Route 9W Corridor and Western Neighborhoods

Area 17 – Route 9W Central (potential future Haverstraw Depot)

This area along Route 9W contains a large self-storage facility, Beckerle Lumber, multitenant retail/service commercial uses, and a gas station. The existing streetscape and land use pattern is vehicle-oriented; however, Beckerle Lumber, an historic rail siding, was once dependent on a railroad economy, and the Village may wish to investigate the economic circumstances that could help to maintain this as a functional siding. Many of the non-residential uses are located in formerly residential structures that have been awkwardly retrofitted for commercial purposes. In the event that the West Shore service is reinstituted by the Metro-North Railway, this area would also be a good location for a station and commuter lot integrated with transit-oriented high-density residential.

Area 18 – Dowd Street

The Village recently received a proposal for multifamily development of a steeply-sloping parcel in this area. Overall, this area remains a suitable location for higher density development, so long as that development can proceed in a safe, secure and visually unobtrusive manner.

Area 19 – Cemetery

This area contains a large complex of multi-denominational cemeteries. Design guidelines should be considered that would require appropriate landscape buffering around the cemetery.

Area 20 – Hillside Avenue

This area comprises a stable neighborhood. Contemporary duplexes are located at the north and south end. A few good examples of Craftsman and Colonial Revival styles may be eligible for landmarking.

Area 21 – Route 9W South

This area also contains the Green Hills group home, the recently expanded Terrace on Hudson, Murphy Manor affordable housing and Northern River View Assisted Living. Generally, this area is fairly stable and continues to be suited for multifamily residential, assisted living/skilled nursing, office, larger-scale restaurant and commercial and mixed-uses.

4.3.4 Village Core

Area 22 – Downtown Gateway

This area presents strong landmark opportunities and opportunities for architectural rehab throughout. A retail/commercial area exists at the top of New Main Street that could use an appearance upgrade more commensurate to its status as a Village gateway. This area comprises the principal gateway to Haverstraw's downtown and includes the Central Presbyterian Church, Seventh Day Adventist Church, and several re-tasked residential structures. Recent applications for expanded residential use indicate that the nonresidential market in this area may be waning.



*Central Presbyterian Church on Hudson Avenue and New Main Street
Credit: Nautilus International, 2019*

Opportunities to improve the intersection of New Main and Route 9W and eliminate the CSX railroad grade crossing may exist due to the changes in topography and Village ownership of land paralleling the railroad. (Refer to Strategic Site 22.1).

Residential uses in this area should be encouraged while still allowing for ground floor office uses as an option. Architectural form should match the surrounding neighborhood. Opportunities should be explored to partner with the Central Presbyterian Church to utilize the church as a center for community activities including theater.



Road to Emmaus scene 'Abide with Us' ca 1907, a stained glass window by Tiffany Studios, Central Presbyterian Church

Credit: Photo by Dorice Arden Madronero. Used with permission of the Central Presbyterian Church

Area 23 – West Broad Street Area

This area includes a corner restaurant, Knights of Columbus, a vacant office building known as the Graziosi Building, Village Parking, a number of contemporary multifamily structures, taxi parking, a renovated Stone Building containing a Rockland Community College Satellite among other uses, a community health trailer, food truck and ice cart.

There are several strong opportunities for landmarking and historic rehab. This area serves as a parking resource for the larger community and adjacent downtown. The Graziosi Building is proposing multifamily residential and such a concept would be sound if adequate parking is provided. (See Strategic Site 23.1)

The Village Parking lot provides redevelopment opportunities including a parking deck with incorporated commercial at ground level. Graziosi and Village Parking lot will be further explored as strategic sites in the Comprehensive Plan. While ground floor office uses should continue to be permitted, pure residential structures should also be permitted. (See Strategic Site 23.2)

Area 24 – Downtown Central Business District

This area comprises Haverstraw's historic downtown, which is National Register eligible. Expanding the downtown sidewalk improvement initiative should be pursued by investigating appropriate areas to incorporate additional landscaping. The uniform appearance of downtown should be replicated for any future redevelopment or in-fill project and façade improvement programs should be instituted for existing buildings. Adaptive reuse and building expansion should be encouraged but regulated through design guidelines and/or form-based codes that would provide better protection for the character of these areas than the existing standard Euclidean zoning alone.

Area 25 – Landslide Residential

This area contains strong candidates for landmarking and strong opportunities for rehab of façade to improve historic identity. This area

exhibits a weak relationship between buildings and streetscape with zero lot lines in some areas (especially along Division Street), poorly maintained buildings, paved-over front yards, and enclosure of front porches and poorly executed building modifications.

A few large multifamily and nonresidential buildings are interspersed throughout the neighborhood and interrupt the predominantly Village-scale one- and two-family residential pattern. Scenic overlooks exist at Haverstraw African American and Rose Nelson Memorial Parks.

This area would benefit from form-based codes and/or architectural design guidelines as well as placemaking interventions and road narrowing in some areas. The north side of Jefferson Street should be improved with sidewalks on both sides and chain link/stone wall barrier to keep trash from going into HHQP. The entire area might benefit from installation of urban-friendly street trees and landscaping. Design guidelines and/or form-based codes would provide better protection for the character of these areas than the existing standard Euclidean zoning alone.

Area 26 – Former Empire Chair Factory & Damiani

This area includes waterfront development sites C, D, and E. and apartments at 60 Broad Street. Water dependent and enhanced uses should be encouraged in these areas such as hospitality uses, live-work buildings and restaurants. A possible floating community could be explored for Bowline Pond while an active marina set offshore is another possibility. (See Strategic Site 26.1.) Geotech analysis of slope from Liberty Street should be conducted to determine capability to support development. Shoreline stabilization will be necessary to reinforce shoreline to resist erosion during storms. Parking and infrastructure will present challenges to smaller-scale development. Future redevelopment will need to adapt to sea level rise.

The Village prefers a redevelopment scale and design that mirrors and complements the adjoining Village, but economics may favor a single redeveloper. Specific recommendations relative to this site will need

to be developed to achieve the Village's goals for this site. (See Strategic Site 26.2)



Homes Along First Street

Credit: Nelson, Pope & Voorhis, LLC, 2019

Area 27 – Historic Waterfront District

This area comprises the National Register listed King's Daughters Public Library and U.S. Post Office of Haverstraw. This area also includes Casa Hudson, the Haverstraw Elks Club and several structures that exhibit strong Neoclassic, Italianate and Victorian architecture as well as opportunities for historic rehab. This area is probably eligible for listing as a National Register Historic District. (See Chapter 8, Historic & Scenic Resources.)

Emeline Park is projected to flood based on sea level rise at its parking lot, restaurant and boat launch. An adaptation strategy will be required. Possible reconstruction of Emeline Pier has been identified as a public recreational project with strong public support. Such a pier may present an opportunity for an additional stop for the ferry, especially if coordinated with development of the adjacent Area 26.

The slopes on the east side of Allison Street may require stabilization. This area is a principal connection from the riverfront promenade at Site B Admiral's Cove to Emeline Park and points north. A possible project would include relocation of the post office to a more centralized area of downtown and reuse of the existing structure as a residential or hospitality use and expansion of the library. Design guidelines and/or form-based codes would provide better protection for the character of these areas than the existing standard Euclidean zoning alone.



Lack of maintenance conveys disinvestment
- Maintain high standards for building maintenance for commercial structures including apartments.

Removal of storefront removes "eyes on street"
- Return ground-story areas to commercial use.
- Add visual interest to blank facades.
- Properly size ground-story windows

Narrow Alley perceived as "lurking space"
- Replace gate with spring-loaded gate that stays closed.
- Close off alley at street side and access from rear.

Example of "SafeScape" Issues and Remedies

Credit: Nelson, Pope & Voorhis, LLC, 2019

Area 28 – Old Quarter

This area comprises the smallest lot sizes in Village. There are several strong candidates for landmarking and strong opportunities for rehab of façade to improve historic identity. This neighborhood features narrow sidewalks, but a strong relationship between the pedestrian realm and adjacent lots. Zero lot lines and narrow rear and side yards may contribute to “SafeScape” issues of perception of public safety, but it is an important connection area between Waterfront Redevelopment Areas, the Ferry and Downtown, especially West Street. The Village should promote improvements to make the streetscape seem safer to pedestrians, such as eliminating “lurking spaces,” enhancing lighting, enhancing sidewalk condition, and maintaining landscaping at appropriate sizes.

Small traditional mixed-uses should be encouraged here, such as a coffee shop or ice cream parlor on a corner lot. Design guidelines and/or form-based codes would provide better protection for the character of these areas than the existing standard Euclidean zoning alone and would help to tie the neighborhood together.



Victorian Homes on Hudson Avenue

Credit: Nelson, Pope & Voorhis, LLC, 2019

Area 29 – Fire House Square

This area comprises the former Neptune Plastics, former Village Hall, Village Parking, a number of automotive uses, several contracting businesses, and a few large multifamily structures. The current land use arrangement presents a significant barrier in the form of out-of-character land use between the central business district and residential areas to the south including the waterfront residential areas.

This area presents leveraged redevelopment opportunities that could have outsized impacts on the downtown. Possible approaches to redevelopment include:

- Extending the mixed-use residential/commercial development pattern of New Main Street down the east side of Maple Avenue, with single-family detached or single family attached residential along the west side of Maple Avenue and designed to complement the character of the Maple Avenue residential area further to the south.
- Assembling the land on the east side of Maple Avenue to provide a large redevelopment site fit for higher density residential multifamily with structured parking.
- Increasing the area available for redevelopment by acquiring the lots west of Maple Avenue and relocating Maple Avenue. This would allow for the intersection angle of Maple Avenue and New Main Street to be normalized.

Any larger-scale redevelopment of this area should provide public improvements including streetscape improvements, land for a public plaza, affordable housing, and/or quality food access. (See Strategic Site 29.1).

Area 30 – Hudson Avenue South

A National Register eligible district, this area includes the National Register Site known as “Homestead,” plus two second empire Victorian Buildings. There are several strong candidates for landmarking and

strong opportunities for rehab of façade to improve historic identity. This includes the transitional area between the Maple Avenue Triangle and the Maple/West Street Apartment Proposal. There is excellent walkability and pedestrian realm throughout, except for Tor Avenue between Hudson and Clove Avenues, which requires sidewalks. Some paving of front yards weakens character at mid-block on Maple. Design guidelines and/or form-based codes would provide better protection for the character of these areas than the existing standard Euclidean zoning alone.



Potential Cross-Connection from Hudson Avenue to West Street
Credit: Nelson, Pope & Voorhis, LLC

Area 31 – Maple Triangle

This area comprises the current Maple Avenue Apartments, the parcel currently undergoing abatement of contamination by Orange and Rockland Utilities, and Head Start. This area has been identified as a good candidate for a roundabout connection of West at Maple. This

area could be a possible intermodal hub with addition of bus service in the vicinity of the Ferry.

A past application for redevelopment proposed live-work spaces and possible 4-5 story apartments with structured parking. Four stories may be most appropriate west of Maple Avenue, with five stories only permitted east of Maple Avenue due to slopes. Additionally, a floating zone should be considered which allows for redevelopment of older multifamily housing and other acceptable infill sites where certain conditions are met (such as a deteriorated state, or gap in the urban fabric) and public incentives achieved (such as area pedestrian improvements or affordable housing).

This area is a critical interface between the Harbors and downtown. A roundabout should be considered at the intersection of West and Maple, and development in this area should incorporate strong architectural features as a gateway to the Village from the ferry. (See Strategic Site 39.1)

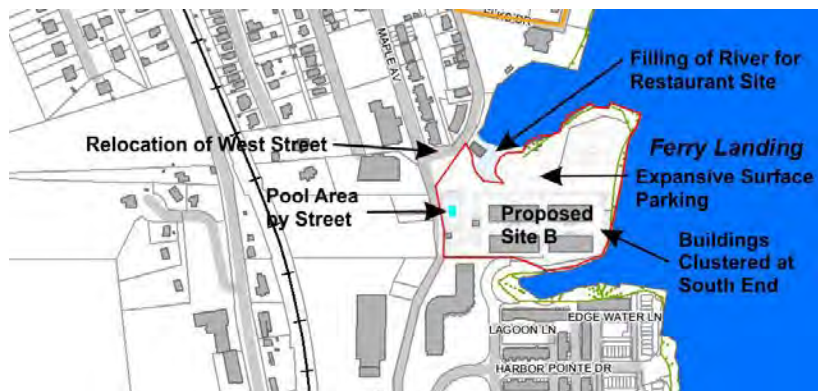
Area 40 – Maple Avenue Neighborhood

This residential neighborhood, which lines both sides of Maple Avenue between the downtown and the waterfront development, is unique from the neighborhoods to the east and west. The width of the road here is wider, which impacts the residential character of the corridor. Creating a boulevard and applying “road diet” should be considered to improve the pedestrian experience in this neighborhood and slow traffic. Homes on the west side of the street are built into the hillside, which makes ground stories uniquely suited for offices and small retail stores. An opportunity may exist to install a new village road connection from West Street through to Hudson Avenue or Clove Avenue at the southern end of this district.

4.3.5 South Waterfront and Quarry

Area 32 – Harbors at Haverstraw and Admiral's Cove

This area comprises the current Admiral's Cove waterfront development site which includes a restaurant proposal, ferry parking, and the extension of the promenade out to West Street. Better connectivity from this area to the Village downtown is desired. Better lighting and inviting landscaping as well as traffic calming and wayfinding are likely to improve the Maple Avenue-West Street-Riverside Avenue corridor for residents and visitors to walk or bike into downtown.



Proposed Admiral's Cove Development Context - 2019

Credit: Nelson, Pope & Voorhis, LLC, Nautilus International, Ginsburg Development Companies, 2019



Proposed Admiral's Cove Development Rendering- 2019

Credit: Ginsburg Development Companies, 2019

As of the writing of this Comprehensive Plan by the Steering Committee, an application has been submitted by Ginsburg Development Companies for Waterfront Development "Site B," titled, "Admiral's Cove." This development concept is a significant departure from the approved master plan concept approved in 2004. This is based mostly on the inability to secure adequate funding to move the ferry landing and parking to the foot of Main Street as was originally envisioned. With the ferry parking remaining, and project economics changing, the applicant has amended the plan to retain surface parking at Site B and instead proposes four multifamily buildings concentrated at the southern half of the site. This plan was the subject of intensive public outreach during preparation of the Plan. Key recommendations that should be incorporated into the Site B redevelopment should include:

- The layout of the proposed development should be designed to be better incorporated into the fabric of the existing Village. Under currently proposed site plans, over 200 feet of surface parking lot fronting along Riverside Avenue will serve to act as a barrier of interest dividing the fabric of the waterfront development from the fabric of Village neighborhoods currently ending at the Maple Avenue Apartments. Instead, the uses should be arranged to provide continuous residential fabric or other uses along Riverside Avenue, to better transition between Site B and the Village. Additionally, the tall, slab-sided buildings aligned in a double row perpendicular to Riverside Avenue will serve to appear almost as a wall literally blocking views of Site A from the Village.
- The architecture of Site A incorporated design cues from existing Village architectural character. Brick was utilized extensively as a contrasting wall cladding. Octagonal corner turrets, bay window extension and complex roof cross-gabbling harken to the Victorian architecture of Hudson Street, while the weathered copper-roofed cupolas evoke the copper-roofed cupola on the Central Presbyterian Church. By contrast, the architecture of Site

B is completely devoid of relationship to any particular architectural style within the Village. The buildings could be built in almost any waterfront community, with the strangely pitched roofs, porthole parapet gables and pennant flag features. The architecture of the buildings should be modified to better reflect the Village's character and act as a transition between Sites A and B.

- The continuation of the Hudson River Promenade from Site A through Site B and out to the intersection of West Street and Maple Avenue should be more than a basic asphalt path and provide points of interest as originally envisioned in the 2004 LWRP. It is most critical to provide more direct and easy access from the ferry landing to the residential Village neighborhoods at West Street and Maple Avenue.
- The swimming pool and restaurant should face the river, not the road. Residential buildings should be proposed along Riverside Avenue.
- On-site affordable housing should be provided in this project and any future new project. Mixed income housing is what is needed most. It was suggested that the developer guarantee 10% affordable housing, even if it required increased density.

Area 33 – Tilcon Docks and Processing Area

This area comprises the Tilcon processing yard, waterfront docking area, and imposes a barrier between Dutchtown and the Village. The estuary south of the Harbors could provide wetland restoration opportunities as well as an opportunity to extend the waterfront promenade out to Riverside Avenue. The Tilcon dock areas are projected to be subject to future flooding, and the Village may want to explore potential impacts of sea level rise on the site and determine if potential impacts may result.

The site of the Tilcon docks and processing area was the subject of substantial public outreach at a waterfront charette during the preparation of this plan. The current end-of-life plan included with

Tilcon's mining permit is for Tilcon to remove all on-site improvements and return the site to a gently sloping hillside from Route 9W to the Hudson River shoreline. Although it is not clear when the mine will cease operations, it is appropriate for this plan to consider future reuse. The consensus among the public was that this large site would be better used to support a regional recreational and cultural attraction, rather than solely being used for additional residential or commercial. Ideas for reuse included:

- A regional amusement park or private recreational facility that could take advantage of elevation changes and be used in the summer as a water park and in the winter for sledding and tubing, and incorporating a landmark feature like a large Ferris wheel that would make the Village more identifiable from the river.
- A regional destination hotel and conference center and/or boutique hotel.
- Expansion of the Haverstraw Brick Museum into a regional museum, interpreting local history such as the Major Andre landing spot, and a demonstration brick yard.
- A theater or auditorium or an amphitheater for outdoor and indoor performances.

Regardless of reuse, there was a clear consensus that any future non-water-dependent reuse of this parcel must provide continuous public access to the shoreline, allowing connections through the site and Dutchtown from Haverstraw Beach State Park to the waterfront promenade.

Area 34 – Dutchtown

This area is a stable neighborhood that contains strong candidates for landmarking and strong opportunities for rehab of façade and preservation regulations to improve historic identity. This area is a critical linkage from the Village to Haverstraw Beach State Park. This unique community is a good location to permit bed and breakfast or

short-term rentals such as Airbnb or VRBO given appropriate regulation. The Village may wish to explore methods to provide public parking in the vicinity of the State Park as well as street improvements to Riverside Avenue to improve utilization of the park, and cohesiveness of this neighborhood with the rest of the Village.

Area 35 – Haverstraw State Beach

This area requires better, more visible, access to increase utilization.

Area 36 – Tilcon Quarry

Tilcon's end of life plan has this area becoming a lake and cliffs after mining ceases. The Village should explore whether opportunities exist for recreational enjoyment or hospitality after closure of the mine. Additionally, this area may also present an opportunity for energy storage utilizing the conveyor tunnel for hydroelectric generation, and filling the former quarry with Hudson River water during times when solar generation is high and utilization is low. (See Strategic Site 36.1)

Area 37 – Tilcon Expansion Area

This area comprises lands that Tilcon has identified as potentially mining in the future and contains a segment of the Long Path trail. Tilcon proposes that post-mining, this area will comprise wooded lands and a lake. This area would present an excellent opportunity for expansion of High Tor State Park in the event that Tilcon ceases mining operations.

Area 38 – Haverstraw Transit

This area comprises the lot currently occupied by Haverstraw Transit and a few vacant lots to the north. This site presents major gateway redevelopment opportunities to continue the waterfront development and connect it to downtown and could accommodate up to 6 or 7 stories of residential with a parking deck. This may also be a good location for a TOD development and possible train station in the event that the West Shore line is reactivated. (See Strategic Site 38.1)

Area 39 – Riverview Highway

An auto repair node exists in this area with a strong market, but it is not ideally located from a site layout perspective. Land use changes proposed for this area are to allow a larger range of residential and assisted living uses at higher densities with structured parking incorporated into future buildings.

Area 40 – (Area 40 description follows Area 31)

4.4 Village-Wide Objectives

The following land use recommendations relate to broad areas of the Village:

Objective 4.a: Support all generations and income levels with a variety of housing options and encourage intergenerational and social connections via co-housing and other methods of producing affordable and supportive housing.

Recommendation 4.a.1: Reinstitute the Residential Inclusionary Zone (RIZ) floating zone to allow multifamily construction throughout the Village at appropriate locations.

The Residential Inclusionary Zone was a zoning tool, which allowed sites that met certain criteria to be developed for multifamily at densities appropriate to the construction of high-quality rental housing. The Murphy Manor Apartments were developed based on this zoning mechanism. At some time, this zoning was removed from the Village code, but it should be reconsidered as a tool to allow redevelopment and provide much needed affordable housing to the Village.

Recommendation 4.a.2: Adopt zoning that would require a minimum percentage of affordable units as an element of any significant residential development.

The Village should require that any proposal for more than 6 units should provide at least 10 percent of its units as affordable housing targeted to families earning 30%, 50% and 80% of area median income. Specific provisions should be required prescribing what income ranges are being targeted, with larger projects required to serve lower-incomes, and smaller projects allowed to serve “workforce housing” needs. Provisions should permit density bonuses and should apply uniformly to the entire Village without exception.

Objective 4.b: Continue to promote a sustainable mixed-use, walkable, compact-scale land use pattern

Recommendation 4.b.1: Adopt form-based codes for the Village.

The Village would benefit from form-based codes that concentrate on regulating a structure's size and appearance relative to the street and its environs, rather than prescribing a one-size fits all size constraint based on its zoning district. Form-based codes regulate beyond setbacks and yards and provide flexibility for greater heights under appropriate conditions, provide different treatment for corner lots allow for yard and even street encroachments, regulate architectural appearance and maintain the appropriate interface between the street and private realms.

The Village should consider implementing form-based codes Village-wide, but as a priority it should be considered for downtown and older surrounding neighborhoods. It is noted that there is a considerable time and cost investment associated with developing form-based codes, so the Village should implement this recommendation as funds allow.

Recommendation 4.b.2: Rethink the Village's standard Euclidean zoning regulations.



Murphy Manor Apartments contain 26 affordable rental units managed by the Rockland County Housing Action Coalition.

Photo Credit: Nelson, Pope & Voorhis, 2019

As an alternative, or advance phase to form-based codes, the Village should consider rethinking the way it approaches its Euclidean zoning schedules. It may be more appropriate, for example, to regulate maximum front yards as opposed to the current practice of requiring minimum front yards. Acceptable heights and setbacks may be keyed to surrounding existing buildings rather than prescribed district-wide.

Recommendation 4.b.3: Consider a design principle approach to regulation of land use and bulk.

As another stop-gap alternative to form-based codes, the Village can prescribe design principles that would guide development of certain zones. These design principles can provide the Planning Board with text guidance on how a building should relate to its streets and environs, and how sites should be laid out with regard to parking, accessory buildings, and other architectural elements. The Planning Board could then be provided with the authority to waive strict dimensional zoning standards where doing so would provide better adherence to design principles.

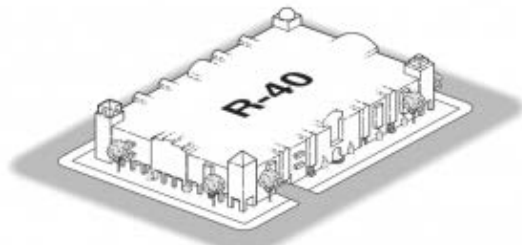
Conventional Zoning (Euclidean)

Density use, FAR (floor area ratio), setbacks, parking requirements, maximum building heights specified



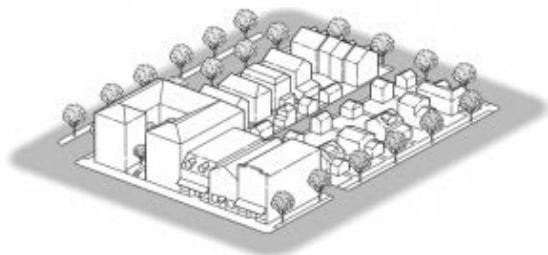
Zoning with Design Guidelines

Conventional zoning requirements, plus frequency of openings and surface articulation specified



Form-Based Codes

Street and building types (or mix of types), build-to lines, number of floors, and percentage of built site frontage specified



Difference Between Conventional Zoning (Euclidean), Design Guidelines and Form-Based Codes

Credit: Form-Based Codes Institute www.formbasedcodes.org, October 2019

Objective 4.c: Enforce a hard, defined border between natural and urban areas

Recommendation 4.c.1: Rethink larger lot, lower-density zoning on the periphery of the Village.

While normally it makes sense to decrease density as one travels away from the center of a community, Haverstraw constitutes an entirely urban place. The Village should allow the residential fabric of neighborhoods such as Hudson Avenue to serve as a prototype for the lowest density neighborhoods prescribed anywhere in the Village.

Recommendation 4.c.2: Preserve open space at the edges of the Village.

High Tor State Park and Haverstraw Beach State Park serve as areas owned and managed by the State that will be forever green. The Village should look to acquire by easement or fee undeveloped parcels at the current edge of the Village's settlement pattern, where development of those parcels would be significantly and aesthetically impactful to the community. The Village may wish to seek funding assistance for this purpose from State of New York.

Objective 4.d: Improve access to fresh, healthy foods

Recommendation 4.d.1: Consider reallocating portions of Village-owned parking areas as community gardens, especially in more urban areas of the Village.

The Village currently maintains a community garden near Haverstraw Elementary School in the "Central Park" land use area. This may not be convenient for persons living more than a five-minute walk from that garden. The Village should consider strategically locating additional community gardens or community greenhouses within Village Parking areas, to provide these resources closer to where people live.

202.2.1 Row-Style Shopfront

PURPOSE and FORM

A two- or three-story row-style building type that accommodates ground floor retail, office or commercial uses with upper-story residential, commercial, artist, dance, yoga, or office uses. Multiple row-style shopfront buildings may be attached to create a downtown row. Ground floor residential uses are prohibited.



STORY and HEIGHT REQUIREMENTS

# Stories:	2 (min) / 3 (max)
Gable Height:	42' (max)
	1- floor 13' (min)
	2- floor 9' (min)
	3- floor 9' (min)
Flat Roof Height:	36' (max)
	1- floor 13' (min)
	2- floor 9' (min)
	3- floor 9' (min)
	3.5' parapet (max)



PERMITTED IN SUBAREAS

PW-1
PW-2

FRONTAGE ENCROACHMENTS

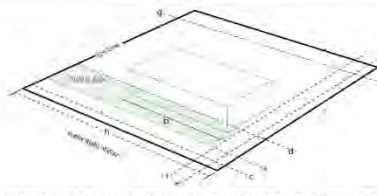
Shopfront
Gallery

202.2.1 Row-Style Shopfront

LOT REQUIREMENTS

a: Build-to Line (BTL) ¹	0'
b: % Building Front Façade at BTL (min)	85%
c: Front Yard Setback (min)	0'
d: Front Yard Setback (max)	15'
e: Side Yard Setback (min)	0'
f: Side Yard Setback (max)	15'
g: Rear Yard Setback	25'
h: Lot Width (min)	25'
Lot Area (min)	2,500 SF

¹ Where the Planning Board allows or requires outdoor dining or gathering space, the Build-to Line may be increased to the maximum front yard setback.



DESIGN STANDARDS

- The ratio of openings to wall area in the front façade and any façade parallel to the front façade between the heights of 30 inches and 8 feet above the ground-floor finish height shall be a minimum of 70 percent.
- The maximum distance between the ground and the bottom of the first-floor window shall be 30 inches.
- The minimum width of the building at the frontage line shall be 25 feet.
- When flat roofs are proposed, a parapet wall or projecting cornice shall be included at the front façade.
- The horizontal mass of any façade shall be articulated when the distance is more than 25 feet with a projecting or recessed element that adds dimension to the otherwise flat plane of the front façade such as, but not limited to, a courtyard frontage, building entrance, pilaster, brickwork, cast stone or other architectural feature unless the Planning Board determines that the scale, architecture and symmetry of the building is appropriate without such interruption.
- The horizontal line of the roof eave at any façade shall be interrupted, when the distance is more than 25 feet, with a vertically projecting or recessed element that adds dimension to the otherwise straight line.
- The vertical mass of any façade shall be interrupted with a projecting or recessed element such as pilaster, brickwork, cast stone or other architectural feature that adds dimension to the otherwise flat plane of the front façade at the level between the first and second floors unless the Planning Board determines that the scale, architecture and symmetry of the building is appropriate without such interruption.
- Galleries may be allowed within the front building setback if consistent with the building style and only at the discretion of the Planning Board.
- Parking shall be located behind the building and/or along the street.

Example of form-based code prepared for Town of Hyde Park, NY

Credit: Nelson, Pope & Voorhis, LLC, August 2019

Recommendation 4.d.2: Provide a permit program and allow for “pop-up” vegetable markets.

The Village should allow for the sale of produce and limited prepared foods throughout the Village at certain roadside locations or in Village parking lots. The Village received significant public comment that the existing farmer's market did not operate at optimum hours to serve the community and often provided only limited inventory for sale. Produce trucks that can set up stands on weekdays and sell vegetables directly to neighborhoods should be permitted by the Village subject to certain operational and safety requirements.

Recommendation 4.d.3: Consider having the Village act as an agent between farm subscription services and the public.

Farm subscription services allow for local farms to provide weekly produce deliveries to local residents for a standard weekly fee. Typically, this requires a commitment on behalf of the subscriber, and the subscriber will get whatever fresh vegetables are ready for harvest. One challenge to this type of service is that lower-income populations may not always be able to make their weekly or monthly payments, which leads to local farms not wishing to do business in the Village. The Village as part of a community kitchen, kitchen incubator or in partnership with local restaurants may wish to act as an agent, guaranteeing a certain minimum weekly purchase of produce shares from a local farm in order to make that produce available to its residents. Where residents are unable to make their payment, the Village could work with local restaurants or its incubator/community kitchen to accept the excess.

Recommendation 4.d.4: Provide incentives for fresh food markets.

In drafting zoning for higher density multifamily infill projects in and around the downtown, the Village should look to provide incentives for the provision of storefront spaces for fresh food markets where local residents can purchase produce, fresh meats and fish. Incentives may allow greater heights, density or floor area in exchange for the space. One potential method for ensuring ongoing viability of the

space would be to have the Village be an agent for leasing the space, wherein the building owner enters into a long-term lease agreement with the Village based on its costs, and the Village sub-leases the space to a qualified operator. A similar mechanism can be employed for other community benefiting spaces in the downtown such as incubators or commercial community kitchens. (See also Chapter 7, Economic Development.)

Recommendation 4.d.5: Encourage the construction of vertical farming within the Village.

The Village should support the construction of vertical farm facilities within the Village. The Village should provide a minimum of zoning regulations applicable to vertical farming produce facilities, regulating exterior appearance, parking and loading, access control and storage and handling of waste. The size, design and operation of facilities should be otherwise given broad latitude, and the Village should petition the County to extend agricultural district protections to vertical farming facilities that are established within the Village.

Objective 4.e: Improve public access to the waterfront

Recommendation 4.e.1: Encourage public use of private lands along the waterfront.

The Village should work with local private landowners to improve continuous access to the waterfront. Often, private landowners are nervous of liability extending from providing access to riverfront areas. The Village should educate landowners on their protection under New York State Recreational Use Statute (General Obligations Law 9-103). The Village should seek and acquire access easement allowing for eventual uninterrupted public access along the Hudson River shoreline for the entirety of the Village, with the exception of industrial uses that may present insurmountable public safety risks.

¹ Haverstraw (village), New York Facts for Kids. *Kiddle Encyclopedia* <kids.kiddle.co/Haverstraw_(village),_New_York>. Accessed August 13, 2019.

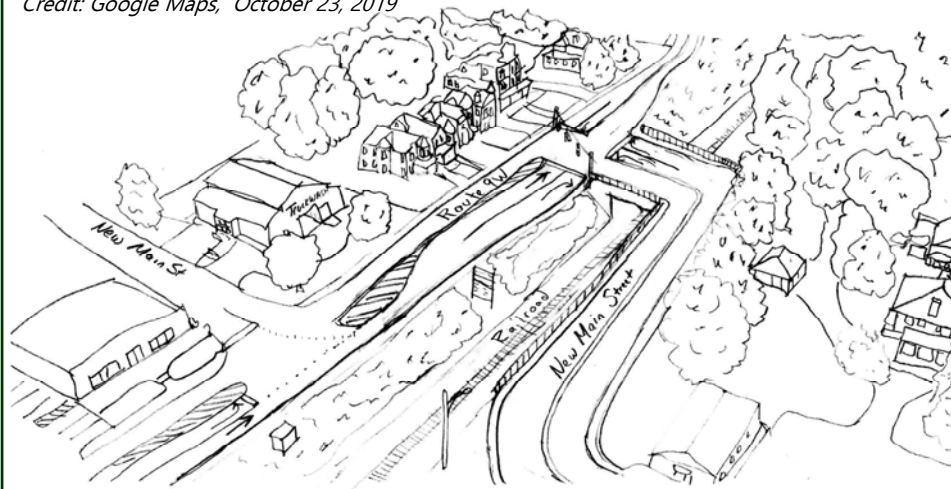
² Haverstraw Brick Museum Center for Historic Preservation. *Haverstraw – A Brief History*. <Haverstrawbrickmuseum.org/history.html>. Accessed August 13, 2019.

³ Ibid.

⁴ Ibid.



Existing Village Gateway at New Main Street
Credit: Google Maps, October 23, 2019



Rendering of Realigned New Main Street with Overpass
Credit: Nelson, Pope & Voorhis, LLC - 2019

Existing Condition: The character of the current crossroads of New Main Street and Route 9W is dominated by the two heavy commercial buildings. To the north is a row of well-maintained historic Second Empire Victorians. This primary entrance to the Village's Central Business District is an at-grade rail

crossing, subject to closure at certain times of day. Trains blowing whistles impact adjacent residential neighborhoods as they approach the at-grade crossing.

Desired public improvements: Construction of a relocated intersection of New Main Street further to the north, via a new railroad overpass.

Design principles: The project would transform the character of the gateway making the Edward Hopper house the new dominant feature. The current heavy commercial buildings at the corner of New Main Street and Route 9W, have been subject to frequent tenant turnover. The Village should explore allowing new multifamily housing at this corner and encouraging designs similar to the nearby Murphy Manor housing, and incorporating design cues from nearby Second Empire Victorians. The depot building south of New Main Street should be retained.

Implementation: Partner with DOT, CSX and Rockland County Quiet Zone (administering Federal Railroad Administration initiative) to explore the viability of transforming this interchange. Re-establish multifamily residential floating zone allowing for multifamily redevelopment, subject to affordable housing and high-quality design.

Precedent Image:



North Astor Street Rail Overpass Village of Irvington, NY
Credit: Google Maps- October 23, 2019

Strategic Site 22.1: Realigned New Main Street Gateway

Comprehensive Plan
Village of Haverstraw, New York

December 2019
Prepared by: Nelson, Pope & Voorhis, LLC



Graziosi Site

Credit: Nelson, Pope & Voorhis, LLC, Nautilus International, ESRI, Google Maps, 2019

Site Area: 0.69 acres;

Site Constraints: Site contains a vacant Class C office building;

Current Zoning: PO – Allows office buildings; labs; restaurants; funeral homes; hotels/motels and beds & breakfasts; grocery stores up to 20k SF; vocational schools; and places of assembly;

Site Strengths: Direct access to CBD; plentiful village-owned parking in vicinity; close to schools, shopping and RCC satellite; walk to bus; short walk to Haverstraw Center, schools and central park; redevelopment project – no stormwater requirement;

Site Liabilities: Demolition cost;

Preferred Uses: Multifamily, townhouses, medical office/residential mixed-use;

Desired public improvements: Streetscape improvements to West Broad Street; affordable housing; public use parking;

Design principles: Building should be located close to corner of West Broad Street and Clove Road. Parking should be located to the rear and behind. Height of up to three stories or four-stories if the building incorporates structured parking at ground level or basement level. Building should pay homage to traditional downtown architecture, but need not mimic it.

Implementation: Allow multifamily structures through incentive floating zone requiring design approval prior to landing zone and requiring public improvements and structured parking in order to achieve height, coverage and/or density incentives.

Precedent Image:



700 Constitution Apartments – rear façade – Washington, D.C.

Credit: ForRent.com - 2019

Strategic Site 23.1: Graziosi Building

**Comprehensive Plan
Village of Haverstraw, New York**

December 2019
Prepared by: Nelson, Pope & Voorhis, LLC



Village and School District Parking Lots

Credit: Nelson, Pope & Voorhis, ESRI, Google Maps October 23, 2019

Site Area: 0.98 acres (school lot before Clove Avenue extension); 0.48 acres (Village lot);

Site Constraints: None;

Current Zoning: SP (School) - allows public parks; cemeteries; beds & breakfasts; schools of general instruction; PO (Village lot) allows office buildings; labs; restaurants; funeral homes; hotels/motels and beds & breakfasts; grocery stores up to 20k SF; vocational schools; and places of assembly;

Site Strengths: Direct access to CBD; close to schools, shopping and RCC satellite; walk to bus; short walk to Haverstraw Center, Central Park and schools; redevelopment project – no stormwater requirement;

Site Liabilities: Suspected poorly drained soils;

Preferred Uses: Multifamily and commercial mixed-use incorporated into parking structure, relocation of Head Start, four-season farmers market.

Desired public improvements: Downtown public parking. Relocation or replacement of current EV charging station.

Design principles: Building should be located close to street and wrap a parking structure. Height of up to four-stories if the building maintains current public supply of parking, up to six stories if public parking supply increases by at least 25%. Building should pay homage to traditional downtown architecture, but need not mimic it. Commercial should complement existing downtown offerings, rather than directly compete. South façade of a building on the Village lot should be respectful to adjacent WWII memorial. Parking should not be visible to adjacent streets and memorial.

Implementation: Allow multifamily structures through incentive floating zone requiring design approval prior to landing zone and requiring public improvements and structured parking in order to achieve height, coverage and/or density incentives. Note that if Clove Avenue is extended as recommended in Figure 5-4, the available development area will be reduced.

Precedent Image:



Block 20 Apartments – site plan - 76 apartments wrapping 255 parking spaces (180 public) on a half-acre footprint and six story height.

Credit: Indianapolis Business Journal - 2019

Strategic Site 23.2: Village Parking Lots



Potential Layout of Floating Homes Community
Credit: Edward M. Weinstein, P.C., October 2019

Site Area: 24 acres of land underwater

Site Constraints: Environmentally sensitive habitat; access constraints for motor vehicles including emergency services; lack of opportunities for construction of parking; regulatory constraints;

Current Zoning: SP – Allowed uses include public parks and playgrounds, cemeteries, beds and breakfasts, and schools of general instruction;

Site Strengths: Relatively sheltered from wave action; large contiguous area; near to Central Business District; owned by Village; sheltered from wave action and major river currents.

Site Liabilities: Landside improvements vulnerable to sea level rise; adjoins Village parkland with constraints on private and commercial use; views of Bowline Plant; high infrastructure costs; Genon maintains ownership over north side of pond for Bowline Plant barge access.

Preferred Uses: Water dependent uses such as: floating home community; marina; anchorage area serving nearby industrial or heavy commercial sites (including Hornicks/Blue Beverage);

Desired public improvements: Shoreline stabilization; utility access, vehicular access along shoreline; possible pedestrian connection from Bowline Point Park to Chair Factory site.

Design principles: Maintain continuous public water access along shoreline; provide interesting variety of homes in sizes, colors and configurations; maintain accessibility of Bowline Power plant to River; Synergies with existing residential neighborhoods.

Implementation: The largest hurdle to the development of over water structures in Bowline Pond will be receiving permits from the NYSDEC, NYSDOS and US Army Corps of Engineers. The Village will need to team with these agencies for a small pilot project prior to exploring a more robust implementation. The Village will also need to expand sewer service and vehicular access, as well as work with a developer experienced in this very specialized field of development.

Precedent Image:



Stillwater on Portage Bay Floating Home Community – Seattle, WA
Credit: Seattlefloat.com - 2019

Strategic Site 26.1: Bowline Pond (incl. Floating Home Community)

Comprehensive Plan
Village of Haverstraw, New York

December 2019
Prepared by: Nelson, Pope & Voorhis, LLC



Downtown Waterfront Development Concept Plan

Credit: Barton & Loguidice, March 2019

Site Area: 12.26 acres; 8.73 upland

Site Constraints: Steep Slopes; located in flood zone, vulnerability to sea level rise; erosion;

Current Zoning: WPD – Allows planned waterfront development for up to 200 units of residential; 50k SF restaurant or inn; water dependent uses; children's museum or similar use; parking garage; 15k SF retail; ferry dock;

Site Strengths: Direct access to CBD; Hudson River access/views; SEQ findings for current zoning; potential additional ferry landing; potential pier; Village-owned parcel; adjacent to HHQP and Emeline Park;

Site Liabilities: Eminent domain liability; questionable stability of slopes (landslide); vulnerability to sea level rise; current flood zone; unstabilized shoreline; limited vehicular accessibility; not currently accessible to ferry; views of Bowline Plant; potentially high infrastructure costs;

Preferred Uses: Single-family attached residential; mixed-use Village-style

buildings with retail below, residential apartments above; hotel/conference/banquet facility; multifamily; restaurant;
Desired public improvements: Extension of HHQP trail to Emeline Park; canoe/kayak launch; public assembly space; tour boat dock; pedestrian link to Bowline Point Park; affordable housing.

Design principles: Maintain continuous public water access; mirror scale and pattern of Village downtown; provide an anchor use for downtown that attracts economic activity year-round; interconnect to Village road system; provide central public gathering space; construct above future projected flood elevations; respect view corridors from downtown and existing neighborhoods (height limits).

Implementation: Develop master plan and form-based codes; consider subdividing the site into sectors each with an identified infrastructure improvement and public amenity prerequisite to development. Alternatively, partner with a single developer, but ensure that the development reflects the existing Village fabric and is not monolithic or out of character in scale and design.

Precedent Image:



Habersham Marketplace – Beaufort, SC

Credit: Live, Work, Learn, Play - 2019

Strategic Site 26.2: WPD Sites C&D - Empire Chair Factory & Damiani

Comprehensive Plan
Village of Haverstraw, New York

December 2019
Prepared by: Nelson, Pope & Voorhis, LLC



Firehouse Square and Road Realignment Option to Increase Redevelopment Area
 Credit: Nelson, Pope & Voorhis, March 2019



Conceptual Maple Avenue Redevelopment (Current Road Alignment)
 Credit: Jared Rodriguez, 2011

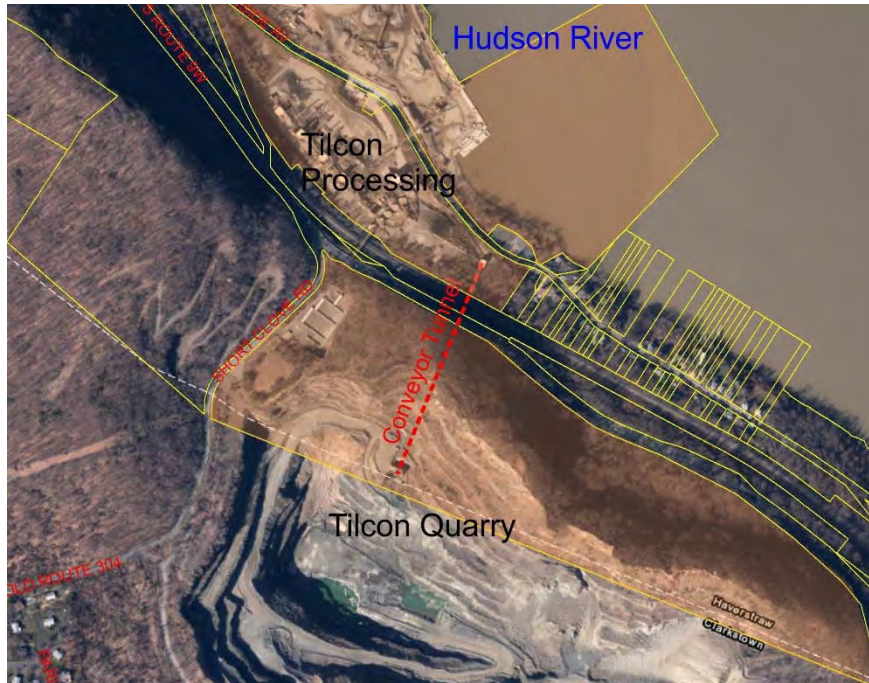
Site Area: 4.7 acres; 3.8 without street (both options require parcel assembly)
Site Constraints: Brownfields; existing incompatible and noncomplying uses;

Current Zoning: CBD - Allows full-range of downtown retail, service, office, recreational and residential uses;
Site Strengths: Direct access to CBD; central location; walk to bus; potential size of lot assembly;
Site Liabilities: Brownfields – potential contamination; existing structures require demolition;
Preferred Uses: Mixed-use multifamily with retail, esp. grocery store, food hub or medical office;
Desired public improvements: Possible realignment of Maple Avenue; pedestrian improvements; affordable housing; possible public plaza; structured parking;
Design principles: Seamlessly blend with the architectural character and scale of the downtown and complementing its historic fabric, although, a direct copy is not required; up to 4 stories at street frontages, and up to 6 stories set back from street are possible subject to visual impact review; complete street pedestrian and bicycle facilities;
Implementation: Develop form-based codes; seek redevelopment partner for assembly of properties and redevelopment; acquire any properties if they become available due to bank or tax foreclosure;
Precedent Image:



Proposed Small-Format Target Grocery Store and Apartments – West Lafayette, Indiana
 Credit: Journal & Courier - 2019

Strategic Site 29.1: Firehouse Square



Location of Quarry in Haverstraw and Conveyor Tunnel
 Credit: Nelson, Pope & Voorhis, LLC, ESRI, 2019

Site Area: 157 acres

Site Constraints: Existing industrial and heavy infrastructure; disparate elevations; significant land disturbance from mining activity; access constraints for motor vehicles.

Current Zoning: PI – allows Research & Development Laboratories; industrial uses including manufacturing, fabrication, processing, assembling and alterations; warehousing, wholesaling; freight and distribution centers.

Site Strengths: Well-located with easy access to Route 9W; adjacent to High Tor State Park, proximity to Hudson River; Hudson River viewshed.

Site Liabilities: Adjoins parkland which may impact prospective private or commercial use; high cost of removing infrastructure and remediation of land/land improvement and grading.

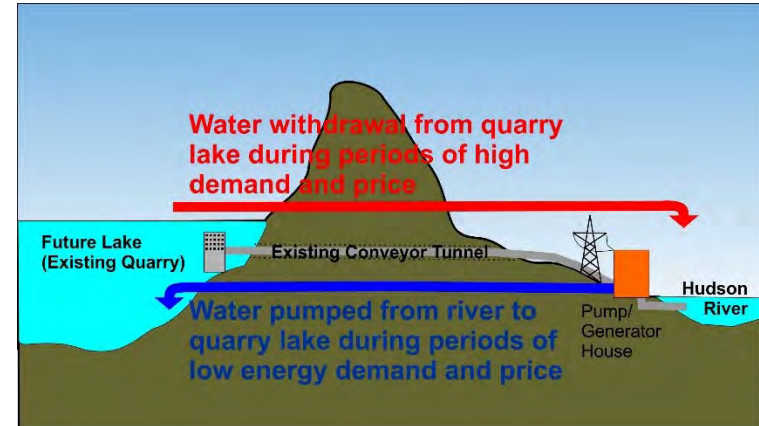
Preferred Uses: Hydroelectric power storage facility utilizing existing conveyor or tunnel; recreational use with a lake and gently sloping cliffs; consistent with Tilcon's decommissioning plan (to leave quarry as lake and processing areas as grassed slope).

Desired public improvements: Utility access; vehicular access; possible pedestrian connection to High Tor State Park and Hudson River Greenway Trail; Development of park and recreation facilities.

Design principles: Create continuous public access to the shoreline; grading to be gently sloping; removal of existing infrastructure.

Implementation: The Village will need to partner with Tilcon at the end of its mining operation, and work to find a partner proficient in developing hydroelectric storage systems.

Precedent Image:



Energy Storage System
 Credit: Nelson, Pope & Voorhis, LLC

Strategic Site 36.1: Tilcon Quarry

Comprehensive Plan
Village of Haverstraw, New York

December 2019
 Prepared by: Nelson, Pope & Voorhis, LLC



Haverstraw Transit Site with Slopes Apparent

Credit: Nelson, Pope & Voorhis, LLC, 2019

Site Area: Approximately 1.65 acres;

Site Constraints: Site contains several existing buildings and active uses.

Current Zoning: PI – allows Research & Development Laboratories; industrial uses including manufacturing, fabrication, processing, assembling and alterations; warehousing, wholesaling; freight and distribution centers.

Site Strengths: Site has large flattened plateau; water views; excellent access to Route 9W; walking distance to ferry landing.

Site Liabilities: Steep slopes, stormwater runoff; successful ongoing business must be relocated, preferably within the Village.

Rte 9W

Train Platform

Parking Deck

Tiered Multifamily

West St.

Cross-Section of Potential Transit-Oriented Development at Haverstraw Transit

Credit: Nelson, Pope & Voorhis, LLC, 2019

Preferred Uses: Transit oriented development; future train station; parking structure.

Desired public improvements: ADA compliant walkway connection to ferry landing, and facilities for bus service on West Street; extensive bicycle facilities including bike share and storage at train station; charging stations; parking for car share; taxi stand.

Design principles: Complement existing Harbors Development as well as traditional Village architecture; respect views from 9W to River and views of High Tor from River.

Implementation: Continue to partner with regional stakeholders to encourage re-establishment of commuter train service on the West Shore Rail Line. Partner with Haverstraw Transit to find a more suitable location within the Village, should service be re-established.

Precedent Image:



50 & 55 South Essex – Orange, NJ

Credit: NJDOT Transit Village Progress Report, 2017

Strategic Site 38.1: Haverstraw Transit

**Comprehensive Plan
Village of Haverstraw, New York**

December 2019

Prepared by: Nelson, Pope & Voorhis, LLC



West & Maple Site

Credit: Nelson, Pope & Voorhis, LLC, ESRI, Google Maps October 23, 2019

Site Area: Approximately 2 acres plus additional adjacent Village-owned land if roundabout improvements are not pursued;

Site Constraints: Site contains an apartment building; site has suspected soil contamination;

Current Zoning: R-1T – Allows for single-family attached, single-family detached, single-family semi-detached; public parks; nursery schools, museums, art gallery, library and community centers; public buildings; accessory apartments; private recreation; hospitals; nursing homes; cemeteries; group-care facilities; home occupations; day care centers; beds and breakfasts; places of worship; schools of general instruction;

Site Strengths: Site is flat, has water views, and is located along a Village collector street;

Site Liabilities: The current site is suspected to be contaminated; existing structures will require demolition and relocation of existing residents; site

may experience some flooding during 100-year storms based on sea level rise projections for the year 2100.

Preferred Uses: Multifamily, townhouses; live-work and artist lofts; small convenience commercial uses;

Desired public improvements: Streetscape improvements to West Street and Maple Avenue including sidewalk widening, street lamps, street trees and furniture; possible plaza improvement or traffic circle at intersection of West Street and Maple Avenue; pavement marking to promote bicycle safety on Maple Avenue.

Design principles: This area is the “front door” of the Village for persons arriving via ferry; encourage transit-oriented development including reduced parking requirements; building should be located along street with parking underneath and/or behind; building must improve pedestrian experience along both streets; building should provide a transition between waterfront development and the downtown in term of form, size and architecture; a design with modest setbacks could be appropriate with extensive landscaping along the streetscape.

Implementation: Allow multifamily structures through incentive floating zone requiring design approval prior to landing zone and requiring public improvements and structured parking in order to achieve height, coverage and/or density incentives.

Precedent Image:



River Vista Apartment Proposal - 2017

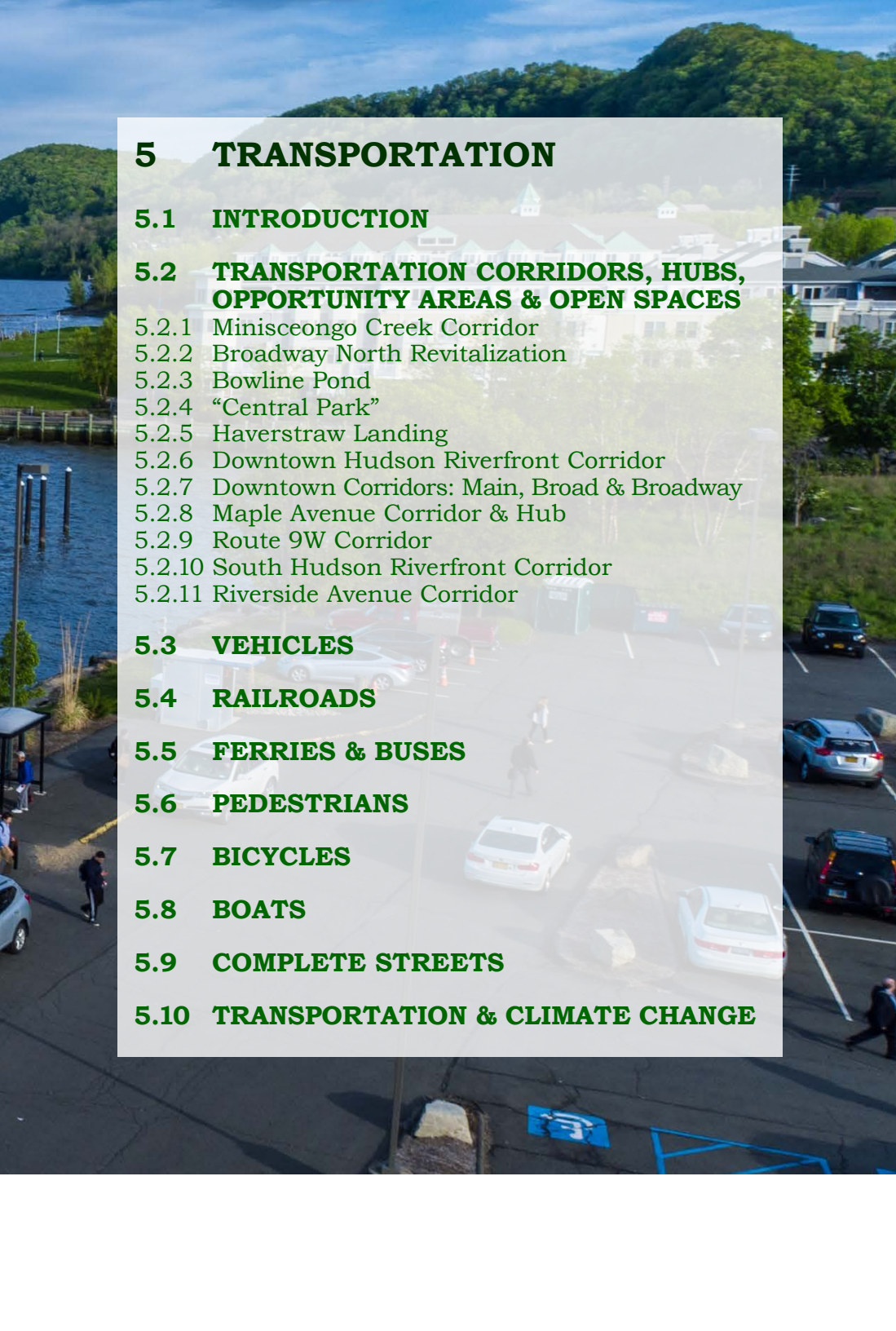
Credit: Atzl, Nasher, Zigler, P.C. - 2018

Strategic Site 39.1: West & Maple



5

TRANSPORTATION



5 TRANSPORTATION

5.1 INTRODUCTION

5.2 TRANSPORTATION CORRIDORS, HUBS, OPPORTUNITY AREAS & OPEN SPACES

- 5.2.1 Minisceongo Creek Corridor
- 5.2.2 Broadway North Revitalization
- 5.2.3 Bowline Pond
- 5.2.4 “Central Park”
- 5.2.5 Haverstraw Landing
- 5.2.6 Downtown Hudson Riverfront Corridor
- 5.2.7 Downtown Corridors: Main, Broad & Broadway
- 5.2.8 Maple Avenue Corridor & Hub
- 5.2.9 Route 9W Corridor
- 5.2.10 South Hudson Riverfront Corridor
- 5.2.11 Riverside Avenue Corridor

5.3 VEHICLES

5.4 RAILROADS

5.5 FERRIES & BUSES

5.6 PEDESTRIANS

5.7 BICYCLES

5.8 BOATS

5.9 COMPLETE STREETS

5.10 TRANSPORTATION & CLIMATE CHANGE

Excellent transportation from New York City and the Mid-Hudson River Valley region by highway make the Village of Haverstraw easy to reach by car and bus. A passenger ferry from Haverstraw to Ossining adds a unique cross-Hudson ferry-to-rail link directly from Grand Central Terminal. Once you arrive, it is a pleasure to walk around the newly renovated, pedestrian-friendly streets, enjoying the lively Main Street. You will discover one of the longest publicly accessible riverfronts along the Hudson River, becoming connected with promenades and greenways. This chapter builds on these strengths and looks ahead to ensure that the Village's transportation systems will stay on the leading edge of sustainability and resilience.

5 TRANSPORTATION

5.1 INTRODUCTION

The Village of Haverstraw's convenient access by multiple means of transportation from New York City and the surrounding region, coupled with its generous Hudson River shoreline and historic, walkable downtown, support its role as an important center in the Mid-Hudson region. To strengthen that role, the Village is committed to advancing the goals of the *Mid-Hudson Regional Sustainability Plan (Mid-Hudson RSP)* and has prioritized the following transportation goals:

- Increase carpool, transit and non-motorized vehicle work trips;
- decrease single-occupancy vehicle trips;
- reduce annual vehicle miles traveled;
- reduce Hudson River bridge crossings per registered vehicle;
- reduce transportation greenhouse gas (GHG) emissions per capita; and
- reduce stationary fuel consumption GHG emissions.

In addition to its role in the region, the Village of Haverstraw understands that creating vibrant places can be achieved by combining forward-looking land use with transportation planning. The Village is committed to supporting their own community's identity as the central business district of North Rockland and a traditional, historic urban village on the forefront of sustainability and resilience.

The following are key transportation goals for the Village:

- support a regionally interconnected 24/7 downtown;
- prioritize transit-oriented development;
- preserve a walkable Village with a compact street grid and small-town feeling;
- enhance residents' ability to live, work, learn and play locally;

- attract jobs and visitors; and
- achieve certification as a Climate Smart Community (CSC), including reducing greenhouse gas emissions.

Combined, these goals can be summarized as:

Goal 5: Strengthen all types of transportation connections, provide environmentally sustainable alternatives, balance regional access with walkable neighborhoods, and revitalize gateways.

This chapter makes recommendations in support of these goals for the Village's transportation systems. It begins with place-based proposals for transportation corridors and hubs that bring together multiple modes of transportation (Section 5.2.1 to 5.2.11) and follows that with mode-based objectives (Sections 5.3 through 5.9) for specific vehicular, railroad, public, pedestrian, bicycle and water-borne transportation systems. The chapter closes with a discussion of the climate vulnerabilities of the Village's transportation systems - such as coastal flooding, warmer winters, increased precipitation, and heat events – along with potential actions to address them (Section 5.10).

5.2 TRANSPORTATION CORRIDORS, HUBS, OPPORTUNITY AREAS & OPEN SPACES

The following sections describe plans for the major transportation corridors - vehicular, bicycle and pedestrian - in the Village of Haverstraw and how they are intended to tie together potential opportunity areas with historic assets and open spaces to generate sustainable, transit-oriented development far into the future. The transportation corridors and gateways are shown on Map 5-1 and numbered to correspond to the sections below. In addition, Map 5-2 combines those transportation corridors with potential growth areas. For an added perspective, Map 5-3 shows the interconnections between the proposed greenway network and the Village's public and private open spaces.

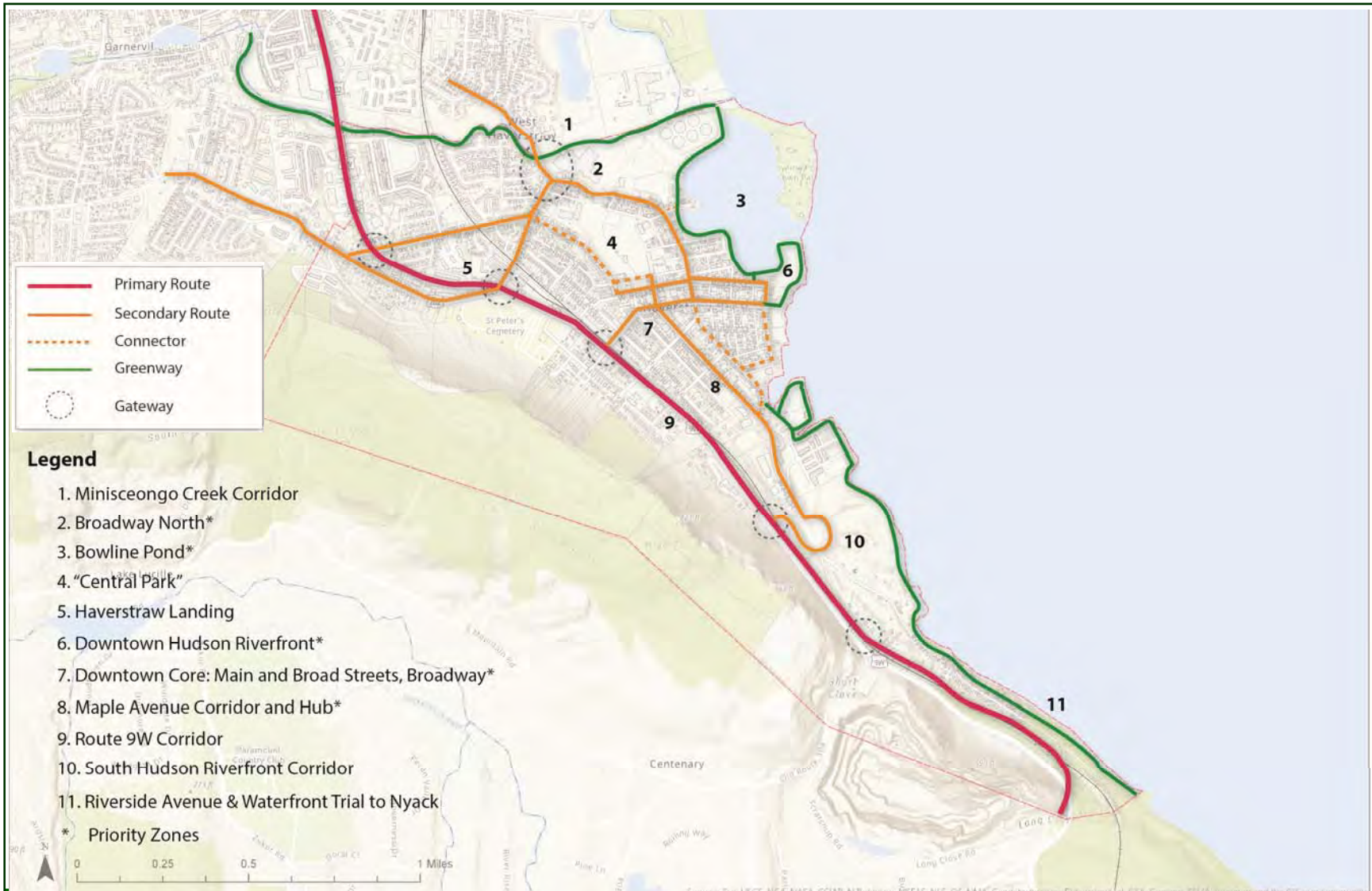


Figure 5-1: Transportation Corridors, Greenways & Gateways

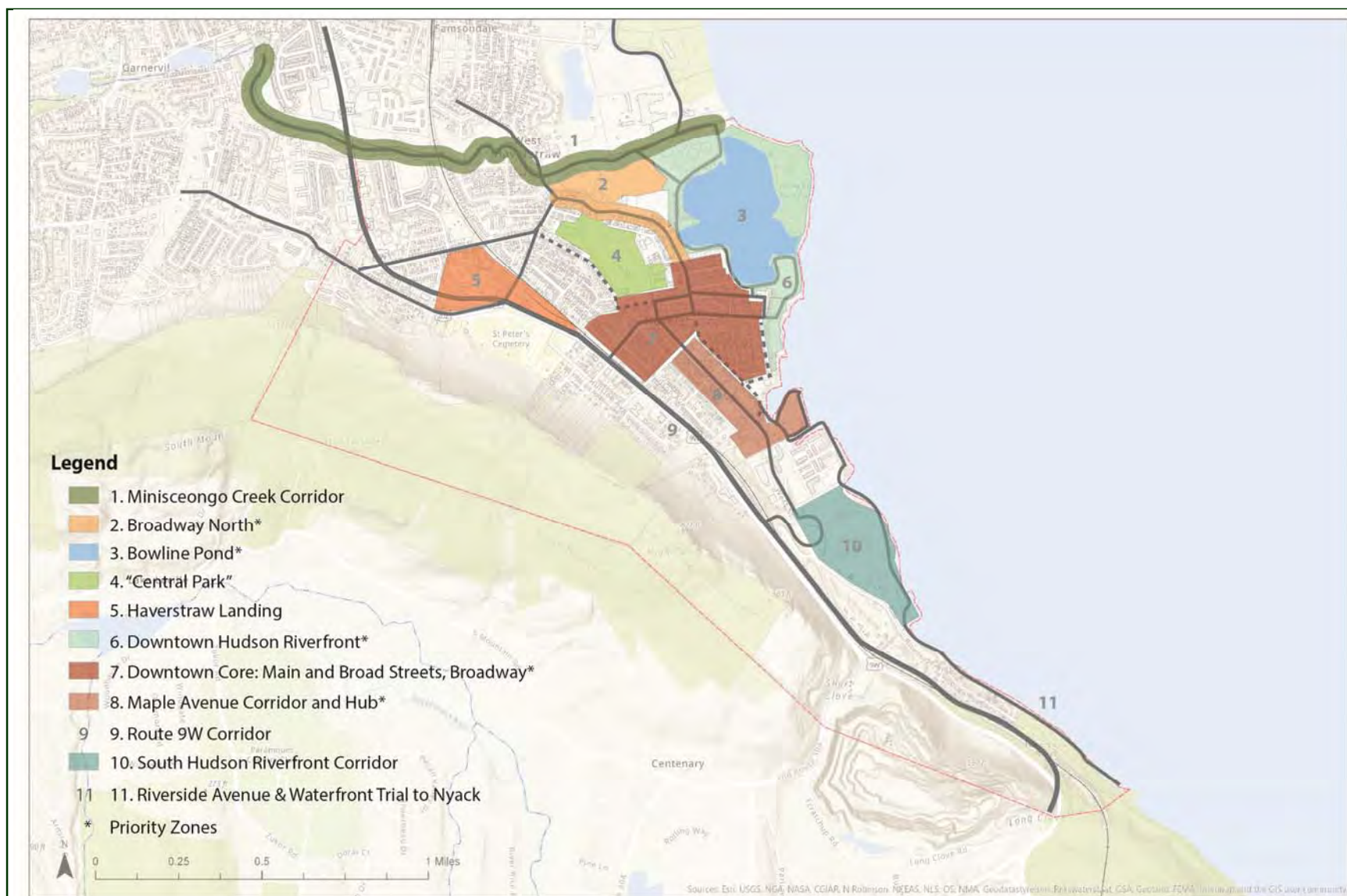


Figure 5-2: Transportation Corridors & Opportunity Areas

5.2.1 Minisceongo Creek Corridor, Greenway and Restoration

The Minisceongo Creek Corridor and Greenway will connect from the Hudson River to the western border of the Village of Haverstraw with West Haverstraw. Along this pathway, the greenway will link a number of existing residential neighborhoods (the Village on the Green and Village Mill) and potential development sites (former Hornick/Blue Beverage). In addition, the Creek borders on the Village's garage relocation for the Department of Public Works. Future extensions of the Greenway to the west could provide a continuous connection through West Haverstraw to the Garner Arts Center, which is approximately an 8-minute bike ride and 25-minute walk from Samsondale Avenue.

Development of this corridor and greenway is envisioned to be accompanied by restoration of the Creek bed and river banks, including water quality improvements and reinstatement of its former connections to the Hudson River. The Minisceongo Creek is one of the few freshwater tributaries in the Lower Hudson River Estuary, according to the Fish and Wildlife Service.¹ Its *Study of NY/NJ Bight Habitats* (Section VI) states that the estuary's rich resources support a "regionally significant fish population as well as populations of wintering and migratory birds that feed on the rich fish and benthic resources."² (See Chapter 6, Natural Resources & Open Space.) This restoration project will also help support a larger plan for storm water management at this northeastern section of the Village where there is

projected flooding of both Bowline Plant Road and Mackenzie Avenue as well as a need for protection of the existing wetland north of Manny Lopez Municipal Ball Field and the Bowline Generating Station's fuel tanks. (See Chapter 9, Infrastructure and Utilities, and the *Coastal Vulnerability and Sea Level Rise* report in Volume 2.)



Minisceongo Creek with outfall
Credit: Nautilus International, June 2019

In the longer term, the Minisceongo Creek Corridor's eastern end could be part of a larger plan in collaboration with West Haverstraw for the upgrading and modernization of the Bowline Generating Station, whose facilities span the Village's northern boundary and may eventually be a candidate for part of a Brownfield Opportunity Area.



5.2.2 Broadway North Revitalization*

Revitalization of North Broadway will complement the *Downtown Revitalization Plan* and extend its successful streetscapes. This section of Broadway from Jefferson Street to Samsondale Avenue and Gurnee Court includes historic buildings (such as St. Peter's Church and Our Lady of Montevergine Chapel), the historic neighborhood of Little Italy, and potential development sites (including former Hornick/Blue Beverage).

Complete streets, which include all modes of transportation, should be considered for North Broadway along with an extension of downtown's streetscapes and façade restoration programs. (See 5.8 Complete Streets below.) The intersection of Broadway and Samsondale acts as an entry point to downtown from the north and provides an opportunity for a welcoming gateway including ground floor retail shops. Its geometry and topography need to be studied and reconfigured for vehicular, bicycle and pedestrian safety.



The intersection of Broadway and Samsondale Avenue is a gateway to downtown Haverstraw from the north
Credit: Nautilus International, June 2019

The former Louis Hornick/Blue Beverage factory property offers one of the Village's largest development opportunities. It covers 21 acres of which 14 acres are developable and the remaining seven are wetlands or in use for excavation. (See Chapter 4, Area 11, Northern Industrial Area.) The site is accessible to the Route 9W truck route and roughly a 20-minute drive from I-287. Notable for preservation are



Former Hornick/Blue Beverage property with sculpture at Broadway showing Minisceongo Creek in the background
Credit: Nautilus International, June 2019

three outdoor sculptures by prominent artists and an allee of mature trees along the entry drive. The existing buildings are a conglomeration of single-story adjoining structures adding up to over 180,000 sf of light manufacturing and warehouse space, which have been vacant for several years. With multiple blocks of frontage on both Broadway and Samsondale Avenue, as well as several hundred feet bordering the Minisceongo Creek, this property should be considered for a large-scale planned development. Along Broadway a mixture of

uses could continue the fabric of the downtown streetscape with residential buildings while the rest of the site could also contribute to the future sustainability of the Village with a “walk to work” layout, green jobs, energy-efficient and affordable housing, and public open spaces connecting to the Creek.

5.2.3 Bowline Pond Greenway

The continuing implementation of the Henry Hudson Quadricentennial Park (HHQP) as the final piece in the Village's downtown shoreline promenade offers an opportunity to plan the future of the 56-acre Bowline Pond as a whole. The HHQP will provide for critical shoreline stabilization, new public access points, a greenway network, and park amenities such as seating areas and lighting. The Village now controls much of the existing shoreline due to an agreement with NRG Corporation granting a transfer of riparian rights for land surrounding Bowline Pond. The agreement opens possibilities



The HHQP shoreline greenway wraps around Bowline Pond

Credit: Nautilus International, June 2019

for new investments in river-focused recreation and new waterfront development. (See Chapters 4, Land Use and 6, Natural Resources.)

Bowline Pond is a unique asset along the Hudson River because of its relatively protected position away from major river currents, where water-dependent uses can flourish. Among other possibilities, an active marina where boats could arrive and depart would make sense near the mouth of the Pond adjacent to the Chair Factory site. In addition, a floating community of liveaboards/houseboats should be explored. A pilot project with 8-10 liveaboards could initially be positioned in the cove nearest Broadway between Warren and Jefferson Streets, where it will connect easily with the life of the Village and begin to enliven the Pond and Northern Broadway with a 24/7 presence.



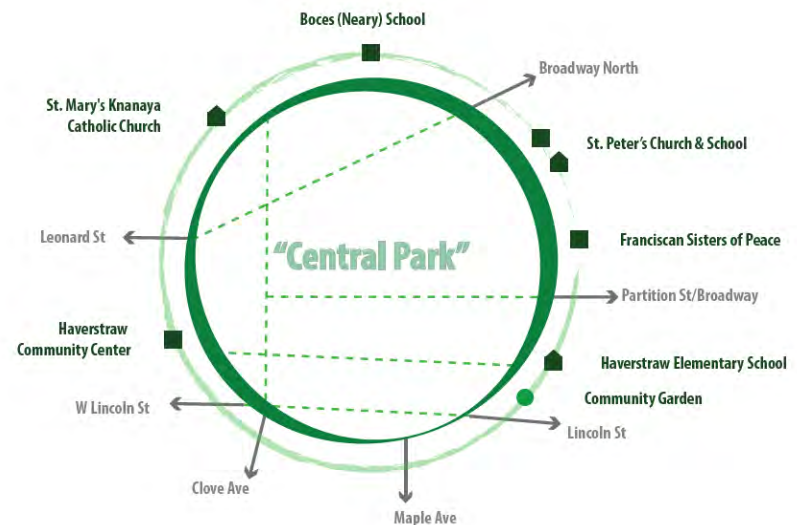
As the site of the 1906 landslide, Bowline Pond needs to be analyzed from a geotechnical perspective and appropriate bluff/slope stabilization implemented where needed. Wherever street ends were severed by the landslide, consideration should be given to reconnection to the street grid or creating dead ends with overlooks. Where properties were lost, consideration could also be given to designating new corner lots. Specific recommendations to increase the safety of the HHQP include improving the Bowline Pond overlooks from the Haverstraw African American and The Rose Nelson Memorial Parks, and providing public sidewalks on the Pond sides of both Jefferson Street and Warren Avenue.

A plan for the future of Bowline Pond as a whole will need to take into consideration the projected flooding of the lower portions of the HHQP trails, Bowline Point Park's parking lot and pier, and the Bowline Generating Station's intake structure. Environmental upgrades to the intake structure should be studied as part of a collaboration with West Haverstraw on the Bowline Generating Station's large volume of water withdrawn from Bowline Pond and discharged into the Hudson River.

5.2.4 “Central Park”*

At the center of the Village, a number of educational institutions ring a large green space nicknamed “Central Park” because of its potential to be an open space resource connecting many parts of the community. “Central Park” is an invaluable resource that today includes formal basketball, baseball and soccer fields as well as a running track, and informal space for frisbee-throwing and other sports. Given the shared ownership of contiguous properties by the North Rockland School District, there is an opportunity to reconfigure the fields and create connections that reach across the Village to bring disparate neighborhoods together, allow the northern parts of downtown an enjoyable way to walk or bike to the downtown commercial district, and give students a safe route to walk or bike to school. The Village aims to acquire unused property from the School District to provide a well-drained, multi-use sports field.

The major educational facilities encircling “Central Park” are Haverstraw Elementary School, BOCES (Boards of Cooperative Educational Services, formerly Gerald F. Neary Elementary School) and St. Peter's School. In addition, there are a number of institutions serving the community, such as the Haverstraw Community Center, St. Mary's and St. Peter's Churches, Franciscan Sisters of Peace, and a community garden.



The need for additional soccer/fútbol fields was a repeated theme during the public participation process, with a request that they be within walking distance of downtown. The reconfigured fields may include areas for food vendors and trucks to serve game day spectators, not unlike the successful ethnic food truck corrals that take place at matches in Red Hook, Brooklyn. In addition, the concept of expanding education about sustainability at all the Village's schools and increasing energy efficiency by putting solar panels on the school roofs were both among the top ten vote winners at the public Workshop on Sustainability and Climate Change.³ (See Figure 5-4, Potential Connections across “Central Park.”)



Figure 5-4: "Central Park" Connections & Greenways



Soccer match underway in "Central Park"

Credit: Nautilus International, June 2019

Important to the success of plans for "Central Park," which sits on a relatively flat plateau, is a hydrological study that examines the High Tor watershed and how runoff moves downhill through the Village between the mountain and the Hudson River. That study should be followed by a stormwater management plan, including bioswales, for the Village as a whole. Currently, there are reports that the fields are sometimes muddy and unusable. Recent excavations for repair of water supply pipes nearby revealed a layer of brick below some of the ground surfaces, which may indicate previous attempts at improving underground drainage patterns.

"Central Park" qualifies as a priority project because it has the potential to become a recreational area that brings the Village together.

5.2.5 Haverstraw Depot

While the possibility of restoring passenger service along the West Shore Line is a long-range project, it is important to plan now for the future use of the Village's railroad infrastructure and identify key locations, like Haverstraw Depot, where a station might be located as a catalyst for economic growth. (Also see Section 5.4 Railroads.)

Haverstraw Depot refers to a triangle at the north of the Village where Route 9W and CSX railroad tracks converge. Gurnee Avenue runs along the north side and Westside Avenue cuts across it to intersect with 9W. This triangle has the unique potential to become an intermodal hub with vehicular, railroad and bicycle access at some time in the future. With several large properties located here relatively close to the downtown, existing large-scale businesses such as Beckerle Lumber should be supported and large footprint retail along with future transit-oriented mixed-use development could be considered. (See Chapter 4, Land Uses and Zoning.)

5.2.6 Downtown Hudson Riverfront Corridor*

The Village of Haverstraw's riverfront corridor is one of the most spectacular stretches along the Hudson River. Given its value to the identity of the Village as an historic Hudson River town, this corridor is one of its highest priorities.

At the top of the bluff looking out over Haverstraw Bay from First Street and Allison Avenue, there is an opportunity to reconnect to the Main Street Corridor (see Section 5.2.7 directly below) with the use of incentives to bring the life of the downtown directly to the riverfront. The two landmarked buildings at the corner of Main Street, the King's Daughters Library and U.S. Post Office of Haverstraw, already form a gateway welcoming people coming to and from downtown. This welcoming gesture would be enhanced with a public space that would benefit from being located on this prime river frontage and relocation of the post office functions to another location with repurposing of its

current loading docks on First Street. In addition, the proposed historic district along the riverfront will safeguard the majestic buildings forming the Village's "skyline" and reinforcing its identity as a historic Hudson River town. (Also see Sections 4.3.27 Historic Waterfront District and 8.2.1 Historic Districts.)



*Riverfront mansions along First Street (left) & Allison Avenue (right) overlooking Emeline Park. Note the large surface parking in the Park.
Credit: Nautilus International, March 2019*

Along First Street, the need for bluff stabilization could be combined with relocation of the restaurant and parking into the side of the hill. This would provide the restaurant with enviable views and a new location that is more accessible from the Village and safely above the projected flood zones. A parking garage in this location would have a 24-hour/7-day use because it could service the ferry commuters during the weekdays, park visitors on the weekends, and restaurant goers in the evenings. The rooftop could be designed to be level with the existing sidewalk, expanding it out to create a generous riverfront promenade and greenway. The Village envisions underground parking for the new developments on the former Chair Factory site.

Where the First/Allison riverfront promenade meets Main Street, a more substantial and welcoming overlook would do justice to the natural beauty of the views here up and down the Hudson River. Pedestrian and bicycle access to Emeline Park should be prioritized from Main Street, while vehicular access could be concentrated on Broad, Liberty and South Streets.

At the base of the bluff, the Village is already well on its way to maximizing the continuous stretch of Emeline Park and other Village-owned properties, including the former Chair Factory and Damiani sites. The HHQP and riverfront greenway extend all the way along the River from Bowline Pond through the park to South Street. In addition, the reconstruction of Emeline Pier at the foot of Main Street has been proposed to host an additional landing for the Haverstraw-Ossining Ferry and other waterborne transportation, and extend public access out into the River. (See Section 5.5 Ferries and Buses.)

5.2.7 Downtown Corridors: Main Street, Broad Street and Broadway*

At the center of downtown, three transportation corridors form the essential backbone of the Village of Haverstraw. The Main/New Main Street corridor sweeps from Route 9W down the hill all the way to Emeline Park and the Hudson River. This vibrant East-West connector is lined for eight blocks with landmark and historic buildings that are remarkably intact and form a classic "Main Street" – an invaluable asset to the Village. (See Main Street Corridor sketches and Chapter 8, Historic and Scenic Resources.) The western gateway from Route 9W would benefit from revitalization. (See Section 4.4.22 Downtown Gateway and Section 5.3, Vehicles: Access, Circulation and Parking.) As described in the previous section above, its eastern gateway to the waterfront can be strengthened with protection for the historic buildings along the Hudson Riverfront corridor. In between, the new streetscapes have already created a pleasant pedestrian environment and façade improvements are under way.

Main Street Corridor

1



2



3



4

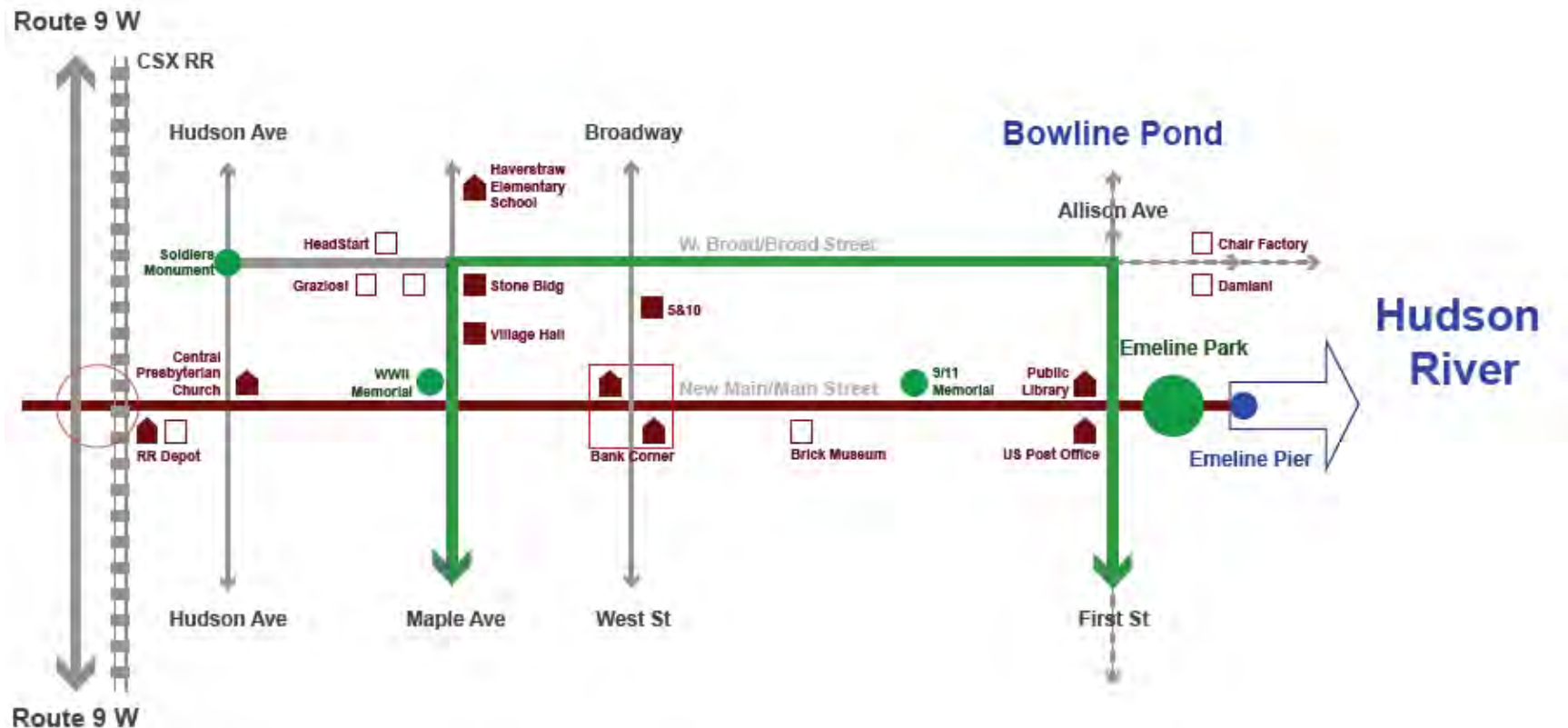


A Walk Down the Main Street Corridor

Running one block north and parallel to the Main/New Main corridor, is the second downtown corridor along Broad/West Broad Street. This corridor goes from the historic Hudson Avenue residential neighborhood, which is graced with magnificent vistas of both High Tor and the Hudson River from the Soldiers Monument, all the way down to the riverfront on Allison Avenue overlooking the future Village-owned development sites of the former Chair Factory and the Damiani property. (See Section 4.4.26 Chair Factory.) To protect the historic character of the Main Street Corridor, it should be paired with Broad/West Broad in the sense that bus routes could be located there between Maple Avenue and Broadway and bicycle routes could extend from Maple Avenue to Allison Avenue, where they can connect with the HHQP and Emeline Park greenways.

The variety of potential infill sites and Village-owned parking lots on Broad/West Broad also offers opportunities to accommodate uses that would be inappropriate or out of scale with Main Street's urban fabric. For example, a new parking structure for the western portion of downtown could be located along West Broad Street and would help rationalize and centralize downtown parking. (See Section 5.3, Vehicles: Access, Circulation and Parking.)

West Broad Street near the Haverstraw Elementary School would also be an excellent location for the Head Start program because it is centrally located within walking distance of most families living in downtown, reducing the need for busing of young children to its current location in the south of the Village. In addition, clustering these



pre-school and elementary educational services will allow families with more than one child to drop them off nearby each other.

The third downtown corridor is the combination of Broadway and West Street, the longest North-South connector in the Village. The intersection of this corridor with the Main/New Main corridor is widely recognized as the most important and memorable one in the Village and is known as the “Bank Corner” for its historic banking buildings, which exemplify some of the finest brickwork from Haverstraw's peak as a brick-making center for the region. While new streetscapes have been installed on Broadway going north to Edgar and Warren Streets, continuing them south along West Street to Fairmount Avenue would help support businesses located there and allow customers for business on Main Street or the Brick Museum to walk from parking lots in this southern downtown zone.

5.2.8 Maple Avenue Corridor and Hub

The Short Clove Road gateway and Haverstraw-Ossining Ferry are bringing more traffic to Maple Avenue and providing an opportunity to create a new “front door” to the downtown. The corridor is already lined with a series of civic buildings and potential sites for new developments. Civic structures currently located along Maple Avenue include the Haverstraw Elementary School at its northern end and the historic Firehouse, Ladder and Rescue #1, Hose #4, the World War II memorial, Village Hall, and the Stone Building at its center. Relocation of the U.S. Post Office of Haverstraw would allow it to be more centrally located, more easily accessible by car, and would reinforce the civic nature of the corridor. Development sites along Maple Avenue include strategically positioned Village-owned parking lots that could be prioritized for structured parking and other Village facilities. Between Fairmont Avenue and New Main Street, a Village-owned and other adjacent sites have been studied for a grocery store plus street-level retail uses and upper-floor residences that could create a critical mass just off the main commercial corridor while being designed to complement the historic fabric. Development in that

location would benefit from existing bus stops and help increase pedestrian activity along New Main Street, supporting existing stores and restaurants and promoting a walkable downtown. (Also see Chapter 4, Area 29, Fire House Square.)



Maple Avenue looking from the west towards the Hudson River with the Firehouse (red door) and Village-owned parking lots in the center.

Credit: Village of Haverstraw, 2017.

Numerous modes of transportation converge at the southern end of Maple Avenue - the Haverstraw-Ossining Ferry, bicycle routes, pedestrian promenades, public buses, and private vehicles – making this an excellent location for an intermodal hub. Relocation of the Department of Public Works facilities to the north end of the Village along with development of the waterfront property known as Site B will provide the potential to reposition the Village towards more sustainable forms of transportation and development. In addition, as mentioned above in the section on Downtown Corridors (Section 5.2.7), the relocation of Head Start to West Broad Street along with transitioning of Haverstraw Transit over time to the Tilcon Yards, or other more industrial location, could create a significant area for transit-oriented development at this hub.

At the southern end of Maple Avenue, the intersection with West Street marks the beginning of the downtown area for people coming from the south and arriving by ferry. Currently, the intersection is an awkwardly configured fork with poor signage and no pedestrian crosswalks. An improved intersection could be achieved with a roundabout that includes pedestrian amenities and clear markers for the bike route, along with traffic calming and wayfinding. To the north of the intersection, the Maple Avenue Apartments is currently being considered for redevelopment and could be redesigned to greatly improve the perception of the Village for visitors while providing new housing opportunities. Fortunately, a Village-owned property at that location could also be leveraged for welcoming open space. (Also see Chapter 4, Area 31, Maple Triangle.)

5.2.9 Route 9W Corridor

The Route 9W corridor runs all the way through the Village of Haverstraw from its north to south borders. As the major access route from the neighboring communities and surrounding region, there are many opportunities along Route 9W for transportation improvements that should be considered to improve the perception of the Village. Route 9W moves through three main areas of the Village. The northern zone hosts large-scale vehicular-oriented businesses, like big box retailers and gas stations. The central area near downtown is lined with institutional and commercial uses. Farther south, Route 9W is flanked by the Tilcon New York rock quarry and processing yard, which occasionally open up revealing dramatic vistas to the Hudson River. (For land use proposals along these three parts of the corridor, please see Chapter 4, Areas 4, 17 22 and 33, Route 9W North, Central and South.)

To develop a cohesive and positive perception of the Village along the Route 9W corridor, initial transportation investments should prioritize improvements and consistency to wayfinding systems and revitalization of the gateways into the downtown. As soon as possible, negotiations with the New York State Department of Transportation

should take place to improve vehicular, pedestrian and bicycle safety, such as expanding the shoulders which carry a regional bike route and strengthening guard rails. Opportunities for at least one scenic overlook of the Hudson River could be explored in partnership with NY State. In addition, the Village needs to develop design guidelines to be implemented in a phased way for the properties fronting on Route 9W, including the buildings, site layouts, setbacks, buffer zones, parking lots, signage and landscaping. New developments will offer important chances to gain pedestrian and bicycle improvements, rationalize turning movements and reduce the visual and environmental impacts of large, impervious parking lots.



Route 9W approaching from the south

Credit: Nautilus International, March 2019

Where the rail lines run parallel next to Route 9W in the southern portions, guidelines are needed to cover safety, noise reduction, and visual screening. For the several hundred feet where Route 9W passes by Mount Repose Cemetery, special guidelines should be in place to respect its history and peaceful beauty at the base of High Tor Mountain.

The stretch of Route 9W from Short Clove Road to Gurnee Avenue is the most valuable to upgrade because it is nearest to the Village's downtown. The top priority along this segment should be its four gateways. The revitalization of these gateways is discussed in detail below in Section 5.3, Vehicles and Recommendation 5. a.2.

5.2.10 South Hudson Riverfront Corridor



*Tilcon Yards in the foreground looking towards the Hudson River
Credit: Nautilus International, March 2019*

The Hudson River south of the Short Clove Road Bridge is currently occupied by the Tilcon New York yards, processing area, and shipping docks for crushed stone aggregates. In the future, it is hoped that a public waterfront promenade can be extended from the one at Harbors at Haverstraw to connect through a proposed Estuary Park, with wetland restoration areas, all the way down to the Village-owned parcel near Dutchtown on Riverside Avenue. The current Tilcon wharfs could be repurposed for a wide variety of vessels. About a block farther

inland, there is the potential to extend the bike route now running along Maple Avenue through this site, provide upland links to the waterfront promenade, and then connect it back to Riverside Avenue in the south. (For land use proposals along the South Hudson Riverfront, please see Chapter 4, Area 33, Tilcon Docks and Processing Area.)

5.2.11 Riverside Avenue Corridor and Waterfront Trail to Nyack

Riverside Avenue rivals Broadway as one of the longest north/south corridors in the Village of Haverstraw. It provides a crucial connector between the Short Clove Road gateway both north to Maple Avenue and the downtown, and south to Dutchtown and Haverstraw Beach State Park. (Also see Chapter 6, Section 6.2.5 Haverstraw Beach State Park & the Harbors Promenade.) At present, Riverside Avenue is a vehicular roadway without sidewalks or bike lanes. Looking ahead, the corridor offers one of the best places in the Village to implement a Complete Streets policy that would accommodate all types of users. (See Section 5.9, Complete Streets.) As Tilcon transitions its processing areas and yards over time and these acres open up for new uses, the right-of-way for Riverside Avenue can be expanded to create a generous and welcoming boulevard to the new developments.

Farther south, where the corridor narrows through the existing, historic neighborhood of Dutchtown, consideration will need to be given to prioritizing public access for pedestrians and bicyclists to Haverstraw State Beach Park by providing public vehicular parking and limiting the number of non-resident vehicles. From Haverstraw Beach to the south, this corridor connects directly with the well-designed waterfront trail that leads all the way south to Nyack along the Hudson River.

5.3 VEHICLES: ACCESS, CIRCULATION & PARKING

The Village of Haverstraw is served regionally by two New York Interstate Highways (I-87 and I-287), and two U.S. Routes (9W and 202). Route 9W, which passes through the Village from south to north for 3 miles, is the main transportation corridor that carries traffic through the Village and connects it with other commercial and industrial centers in the region.

Unfortunately, Route 9W introduces visitors to the Village in a negative way. Approaching from the south, 9W is abutted by the building materials company, Tilcon Haverstraw Quarry's steep, ragged rock cuts, massive gravel yards and industrial mining equipment. At the center of the Village, 9W runs directly adjacent to unprotected railroad tracks with no sidewalks or crosswalks for pedestrians. Scattered along the 9W corridor are a variety of businesses with inconsistent setbacks, random vehicular entrances and exits, uncollected garbage, and disorganized parking lots.

Objective 5.a: Improve the perception of the Village of Haverstraw as an important center in the Mid-Hudson region.

Recommendation 5.a.1: Develop the Route 9W Corridor from Short Clove Road to Gurnee Avenue as a more welcoming introduction to the Village. (For the overall vision of this corridor see Sections 4.3.4, 4.3.17, and 4.3.21 in Chapter 4 and 5.2.9 Route 9W Corridor above.)

Recommendation 5.a.2: Revitalize all Village gateways.

The four primary roads that provide access to the downtown area from the highways are Short Clove Road, New Main Street, Westside Avenue, and Gurnee Avenue. They, in turn, connect the village to its neighboring communities. Railroad tracks for the West Shore Rail line, operated by CSX Transportation, cross all four of these access roads. Vehicular idling at railroad crossings and intersections contributes to greenhouse gas emissions (GHG). Improving intersection geometry

includes interventions such as studying intersection efficiency, converting traditional intersections into roundabouts, improving the timing of lights or even rerouting traffic to a more efficient pattern. (Climate Smart Communities (CSC) 6.15). For the at-grade railroad crossings at New Main Street and Westside Avenue, there may be opportunities to upgrade from partial to full crossing gates and reduce the need for trains to sound their horns. (See Map 5-4: Regional Transportation Access – Analysis.)

Short Clove Road - Short Clove Road was renovated in 2011 and now bridges from Route 9W over the rail lines dramatically increasing access to the Village, especially during train runs. At this gateway, wayfinding could be improved both at the intersection with 9W and where the access road connects with the Village street system east of the tracks at Riverside Avenue.

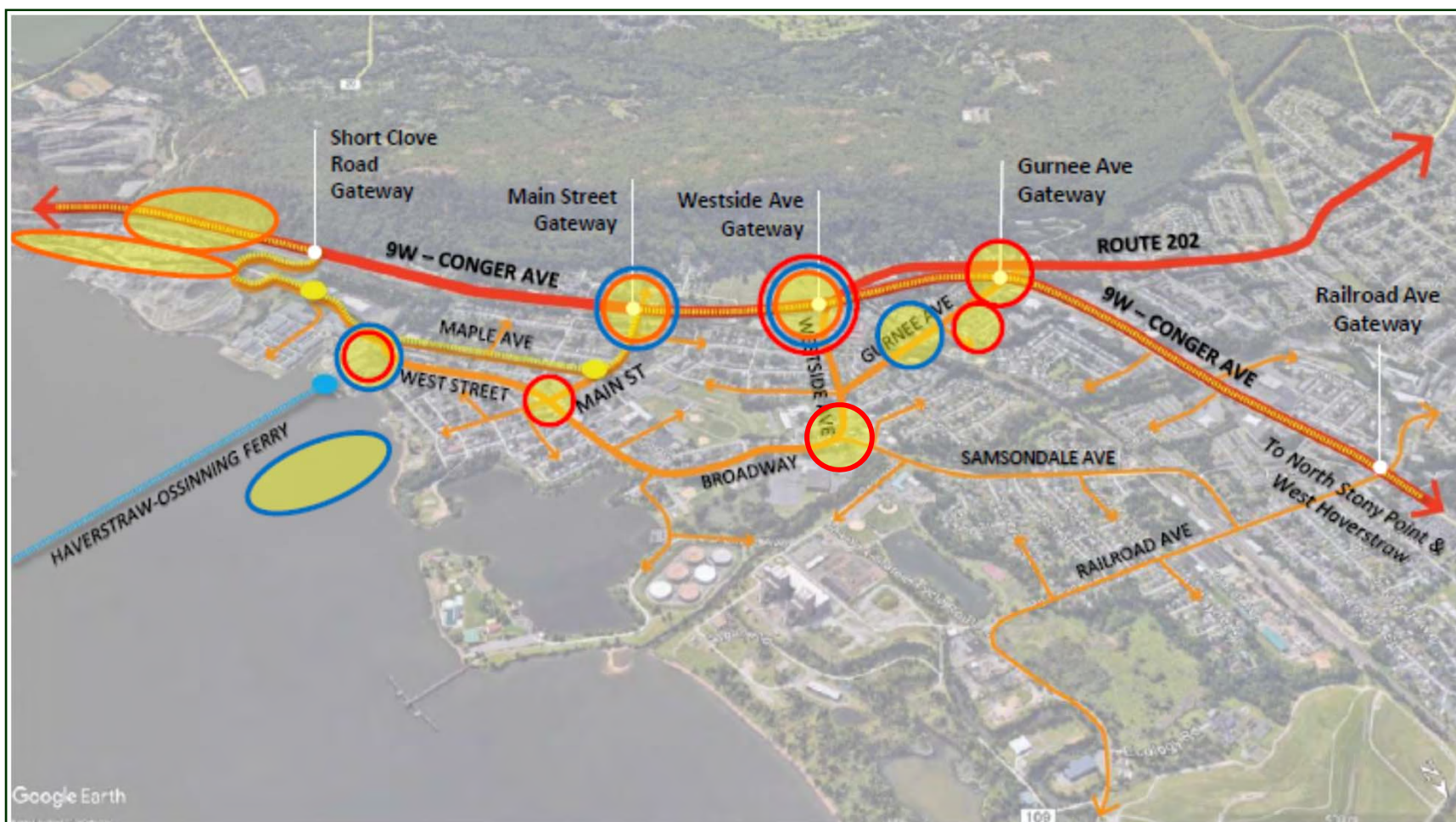
New Main Street – The grade differential and Village-owned land at this intersection offer an opportunity to consider relocating and redesigning it to support a rail overpass that would eliminate the current at-grade crossing.

Westside Avenue – The angular geometry at the intersection of 9W with Westside Avenue is a particular safety concern and should be studied for improvements.

Gurnee Avenue – In addition to studying the geometry at this one-way railroad underpass, there may be opportunities to add a 2-way tunnel or light. A "smart" traffic light could also be considered.

In addition to these primary gateways on Route 9W, a secondary gateway to the Village from West Haverstraw, Samsondale and Stony Point is located at Samsondale Avenue and Broadway.

Samsondale Avenue - Signalization or three-way stop controls at this intersection should be considered. This work should be planned in combination with improvements to the Broadway North corridor. (For



LEGEND:
 Strengths
 Weaknesses
 Opportunities
 Threats

Figure 5-5: Regional Transportation & Gateways

the overall vision of this corridor see Section 5.2.2 Broadway North Revitalization above.)

Recommendation 5.a.3: Encourage innovative means of transportation to reduce car dependency and greenhouse gas emissions.

Reducing dependence on cars by encouraging alternative ways of mobility is one of the most effective ways of reducing GHG emissions, improving air quality, and encouraging healthy lifestyles. The Village should identify transportation networks based on various modes of transportation. Taking this approach will allow for better streetscape designs that allow for greater varieties of mobility that can accommodate all villagers. By defining biking, pedestrian, automotive, and freight networks, the Village can have a better idea of where to focus Complete Streets and Safe Streets programs. This approach can also translate into more efficient operations and maintenance programs to ensure active transportation streets are safe from high speed traffic, potholes, and other hazards.

To help meet the *Mid-Hudson RSP* goals of increasing carpool, transit and non-motorized vehicle work trips while decreasing single-occupancy vehicle trips, the Village could encourage the use of non-motorized transportation to and from destinations such as work, social activities, shopping and to transit hubs. This can be accomplished in a number of ways, for example, by providing loop shuttle buses to the ferry and bus stops, incentivizing employees to use transit, and improving alternative transportation modes with more pedestrian and bicycle infrastructure. (CSC 6.12) (See Map 5-4: Regional Transportation Access – Analysis.)

Another *Mid-Hudson RSP* goal calls for reducing transportation greenhouse gas (GHG) emissions per capita. As part of its CSC initiative, the Village will complete both a government and community transportation GHG emission analysis and develop reduction targets

based on the outcome of a baseline analysis. (CSC 2.1, 2.2, 3.10, 3.11, 3.12, 3.28, and 12.2)

Car-Sharing

Programs in other small cities allow residents, workers and visitors to participate in car-sharing services at low costs, so they can leave their cars at home. In Monrovia, CA, for example, the “GoMonrovia” program will pick people up or drop them off at public transit and take them anywhere in the downtown for \$.50, or within the service area for \$1.00 in a shared ride. They can also take an individual ride for \$3.50 with up to three passengers.

Regional Ride-Sharing

There are many residents in the Village of Haverstraw who cannot drive and find it difficult to use public transportation. While local taxi and limo services offer a good option, advances in ride share apps (Lyft, Uber, Via) offer exciting new opportunities for modern and inclusive on-demand mobility. The Village should look into working with ride-share companies to provide service in the Village. Since Haverstraw's population is small, it may be worth working with neighboring municipalities, the county, and the state to see if grants are available to offer lower income residents discounts for using the service. Local taxi and limo services should also be encouraged to find opportunities to integrate and profit from these platforms.

Car -Sharing Rentals

Car-share rentals, like Zipcar, should be incentivized to establish a small fleet in the downtown to provide access to motor vehicles for all residents. Car-share rentals have been proven to allow for greater equity in mobility, reduce the need for multiple household vehicles, reduce the need for parking spaces, and create greater economic opportunities for those who can't afford a car. Car-share spaces should be distributed between neighborhoods, large-scale parking lots, and key transportation hubs.

Charging Stations

Increasing electric vehicle charging stations within the Village would encourage electric vehicle use and reduce GHG emissions. (CSC 6.11)

Driverless Vehicles

As the research currently underway into driverless vehicles progresses, the Village will need to take into account the recommendation in the Regional Planning Association's (RPA) *Fourth Regional Plan* to design streets for people and "ensure these vehicles improve mobility and don't result in more congestion."⁴

Recommendation 5.a.4: Improve existing parking lots and, as new development takes place, encourage the use of structured parking solutions for downtown and the waterfront.

Parking in the Village of Haverstraw is scattered throughout the downtown in various on-ground lots. While this is a low-cost approach, it results in a confusing system of parking that also creates lost opportunities for developing prime lots. The Village should consider investing in centralized parking structures that can replace parking capacity offered by smaller lots. Pursuing this will allow smaller underperforming municipal lots to be redeveloped. The environmental benefits are reduced emissions from vehicle congestion and mitigation from heat island effect by removing blacktop lots.

Surface parking lots throughout the Village would benefit from improved landscaping and lighting. In municipal lots, the use of green infrastructure and pervious surfaces will improve stormwater management and reduce heat islands.

Wayfinding to the available parking lots has also been reported as an issue. A downtown business described a customer rushing in to make a purchase while her husband circled the block because they couldn't find parking.

Participants in public workshops expressed support for a new parking structure somewhere in downtown. It has been proposed to consolidate the Village's municipal offices, courtroom and other facilities at one location above a parking garage. The structure could include a ground-floor retail and fresh food market space, and space for other offices on the upper floors. The 2005 *Downtown Revitalization Plan* explores options for parking structures and a variety of alternatives to improve and expand parking.

Lack of parking near the riverfront has been cited by residents as a reason they are concerned about a downtown ferry landing. The difficulty of finding on-street parking in the Village has already driven some residents to use the main library out-of-town rather than the Village's landmarked branch on Main Street. Structured parking solutions for the waterfront should be considered as new development takes place. In the meantime, a downtown ferry landing should be designed as primarily a pedestrian destination given its proximity to a majority of the Village's businesses and residences.

Recommendation 5.a.5: Improve the safety of Village streets.

The Village may be a good candidate for the application of SafeScape principles to key streetscapes. For example, residents continue to fear drug dealers on the streets despite a reduction in actual drug-related crimes.

5.4 RAILROADS: ACCESS & STATIONS

RPA's *Fourth Regional Plan* proposes a regional rail system that is unified and integrated. "RPA...envision[s] a series of new projects, phased in over the next few decades, to unify the commuter rail system and expand it into a seamless regional transit system. The resulting Trans-Regional Express (T-REX) would provide frequent, reliable service, directly connecting New Jersey, Long Island, the Mid-Hudson, and Connecticut; create new freight-rail corridors; and provide additional transit service to riders within New York City."⁵



Railroad crossing at New Main Street where traffic backs up while long freight trains are moving through the Village

Credit: Nautilus International, November 2018

CSX Transportation currently operates its River Subdivision on the alignment of the former West Shore Rail lines which passes through the Village of Haverstraw and is used for freight-only trains.⁶ At-grade rail crossings are currently located at New Main Street, and Westside and Gurnee Avenues. These are vehicular crossings with partial gates where there are currently no sidewalks or bike lanes.

The volatile cargo carried by the trains along with their noise and traffic delays are concerns both for residents and businesses.⁷

Objective 5.b: Plan for alternative uses of the railroad infrastructure.

Railroad services are being reconsidered throughout the region. The future use of this key infrastructure, which currently impacts the daily lives of Village residents, while being somewhat farther into the future

than other recommendations, needs to be taken seriously into account in planning comprehensively for the long-term future.

Recommendation 5.b.1: Promote improvements at all rail crossings

For the at-grade railroad crossings at New Main Street and Westside Avenue, there may be opportunities to upgrade from partial to full crossing gates and reduce the need for trains to sound their horns. These and other quiet zone improvements should be promoted. (Also see Recommendation 5.a.2 Revitalize all Village gateways.)

Recommendation 5.b.2: Collaborate with other communities along the railroad line to explore passenger service.

The former West Shore Rail lines stopped carrying passengers in 1959. Today its rail depot remains along the tracks in Haverstraw near their intersection with New Main Street. A program in Virginia limits freight trains to certain hours so that the tracks are available for passenger service the rest of the time. The Port Jervis line in western Rockland County is another example of passenger service. This may be a viable option for the Village and other communities along the CSX line to explore. (Also see Section 5.2.5 Haverstraw Landing.)

Recommendation 5.b.3: Maximize the connections by ferry to MTA's Ossining Station.

Metro-North Railroad, a division of the Metropolitan Transportation Authority (MTA), provides Hudson Line train service that is available directly to Grand Central Terminal in New York City via the Haverstraw-Ossining passenger ferry service, which operates between the Village of Haverstraw and the Village of Ossining in Westchester County. This major asset of the Village should be maximized. (Also see 5.5 Public Transportation below.)

5.5 FERRIES & BUSES

Public transportation is currently provided by both ferries and buses.

The Haverstraw-Ossining passenger ferry offers a popular Ferry-Rail link. This service is the first cross-Hudson passenger ferry in the Hudson Valley since World War II and was designed as a model for other connections to commuter rail stations. The Village of Haverstraw has passed a formal resolution to support expanded on-peak service and additional off-peak Haverstraw-Ossining passenger ferry service, including weekends. Weekend tourism is significant in the summer when the Village is both a destination and stepping-off point to other areas of interest in the Hudson Valley. The ferry could be considered for both additional seasonal and reverse commute possibilities. In addition, ferry connections back and forth with other river towns and tours along the Hudson could be explored.

In addition to the unique asset of the Haverstraw-Ossining passenger ferry service, the Village is served by passenger bus service provided by the Transport of Rockland (T.O.R.), Transportation Resources Intra-County for Physically Handicapped and Senior Citizens, Inc. (T.R.I.P.S.) operated by the County of Rockland, and Rockland Coaches owned by Coach USA. However, limited bus service is available in the Village itself. As stated in RPA's *Fourth Regional Plan*, "Prioritizing public transportation is particularly important for lower-income residents who disproportionately rely on buses."⁸

Objective 5.c: Support public transit riders and increase the use of its transportation assets such as the Haverstraw-Ossining Ferry and major bus services. (CSC 6.12)

Recommendation 5.c.1: Pursue New York State funding to research ridership and engage ferry operators in increasing service with the goal of expanding weekend and evening service by 2020.

As a basis for advocating effectively for additional investment in ferry service, the Village should begin by pursuing State funding to obtain actual ridership data and open a dialogue to encourage operator input. The Rockland County Department of Transportation could also be approached to assist the Village with this effort since ridership extends beyond the Village to the surrounding areas of the county.



Ferry riders disembarking in Haverstraw

Credit: Nautilus International, June 2019

Recommendation 5.c.2: Coordinate with other river towns.

Expanded ferry service during off-peak hours may be a future possibility in coordination with other Hudson Valley river towns, such as Nyack, Tarrytown and Ossining. The master plans for those towns have expressed interest in establishing a tourism loop to attract weekend tourists originating in New York City. A network of ferry landings along both sides of the Hudson River for mutually beneficial weekend and recreational purposes would increase the potential for attracting ferry operators.

Recommendation 5.c.3: Promote a ferry landing near downtown.

The Village developed historically as a ferry and steamship transportation hub and is uniquely suited to take advantage of the direct access between Main Street and the Hudson riverfront. A multi-purpose pier at the foot of Main Street has been proposed to host a landing for the Haverstraw-Ossining Ferry and offer new berthing locations for historic Hudson Valley vessels.



1884 Aerial view of Haverstraw showing brickyards and piers at the foot of Main Street

Credit: Haverstraw Brick Museum, Drawing by L.R. Burleigh, 1884

Original plans for the ferry positioned the terminal along the downtown waterfront in Emeline Park. Agreements with the developer of the Harbors called for a shuttle bus from the development to a ferry landing in the downtown; subsequently, however, the ferry was located adjacent to the Harbors rather than downtown. At the current ferry landing, the lack of bus service, bike lanes, food service or other amenities limits its functionality to those living within walking distance or people who can drive and park. As a result the ferry landing location is currently an asset to car-owning commuters, but not to other residents or visitors.

Recommended: December 2019 – Adopted: July 2021

Recommendation 5.c.4: Develop a pilot program for a loop bus linking key public places in the downtown with the ferry landing.

Participants in public workshops supported exploring a pilot program for a downtown/ferry loop bus that will link key public places in the downtown, such as the riverfront, Emeline Park, Village Hall, Haverstraw Elementary School, and Haverstraw Community Center. A loop bus could also stop at or near the T.O.R. bus stops.



Not only will a loop bus allow Haverstraw residents to leave their cars at home and reduce GHG emissions, it will also help support businesses by allowing more people to reach them easily, help bring the Village's neighborhoods together, and reduce the demand for parking spaces downtown and at the ferry landing.

Using an electric or hybrid vehicle, phone apps and other innovative technologies for the loop bus would be another way to demonstrate the Village's commitment to sustainability.

Recommendation 5.c.5: Increase regional bus service and add new transit stops.

To augment the limited regional bus service available in the Village, additional bus service and transit stops should be considered. For example, there is potential to connect ferry riders with the T.O.R. bus route at West Street and Maple Avenue, creating a future transit hub along with transit-oriented development. There is a possibility that this will be tied in with future development of the Harbors. At a minimum, a protected shelter for waiting passengers with seating at the current landing would be a welcome addition.

5.6 PEDESTRIANS

The Village offers a vibrant, humanly-scaled pedestrian experience that is in distinct contrast to the car-dependent, suburban patterns of surrounding areas. The pre-war urban pattern downtown allows for a mix of retail, dining and entertainment that makes it possible to live car-free for day-to-day life; however, walkability drops outside of the downtown as more suburban residential patterns emerge, making those areas more automobile-oriented. Focusing on strategic hubs and corridors as described above in Section 5.2 Transportation Corridors would allow for better inter-Village connectivity.

Objective 5.d: Create a pedestrian master plan with an implementation strategy to protect and strengthen the

walkability and safety of the Village's downtown and increase pedestrian circulation to downtown and within its residential neighborhoods.

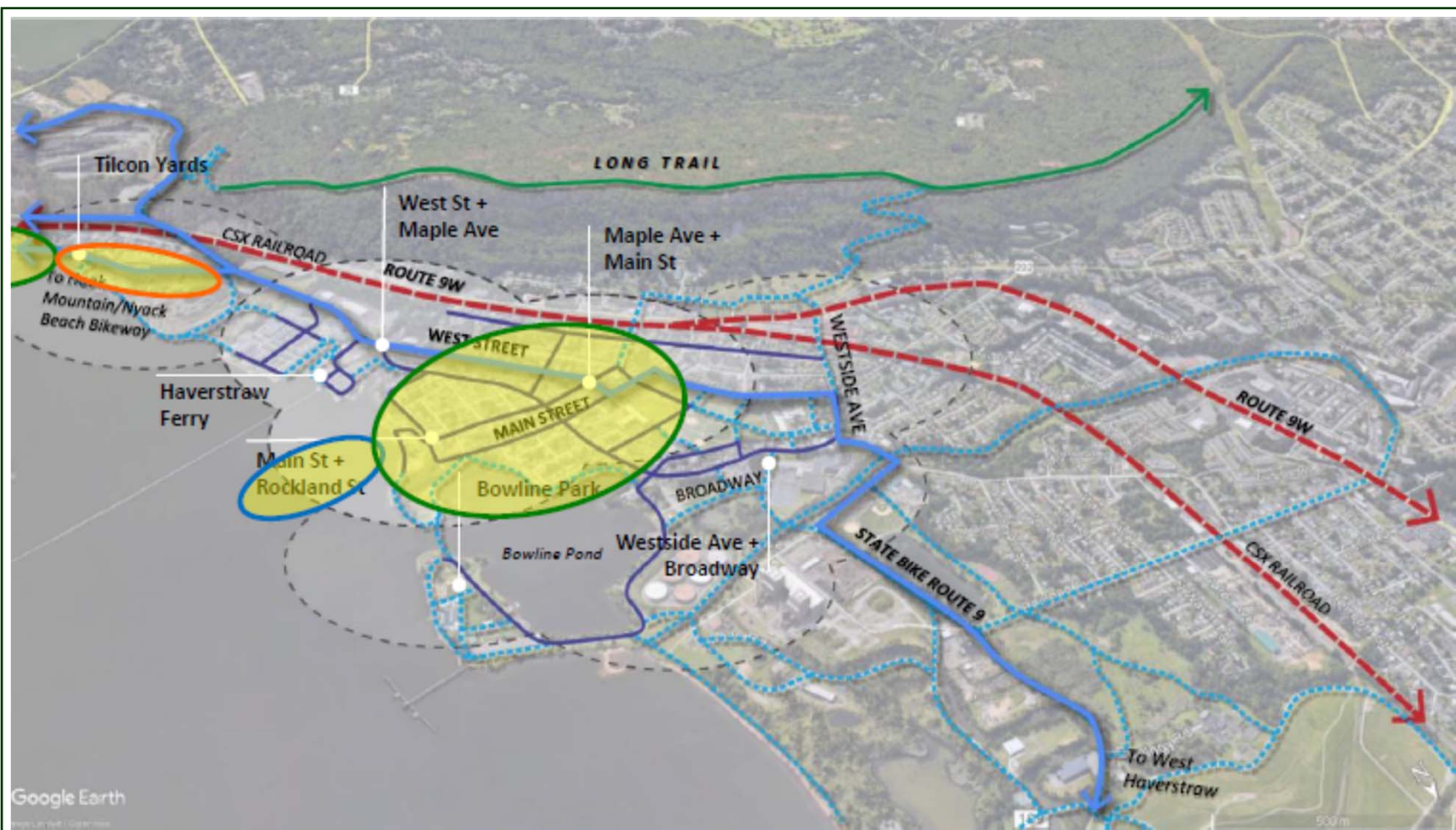
Recommendation 5.d.1: Expand the downtown streetscapes program.

Streetscape improvements have already been completed in the Downtown Business District along New Main and Main Streets and central portions of Broadway. Additional streetscape improvements would be especially valuable along public access routes to the downtown and waterfront, and along waterfront view corridors that preserve the Village's historic connections to the Hudson River.

Future streetscape improvements may be supported by Community Benefit Funds agreed to by the Champlain Hudson Power Express as part of their approvals to place a new transmission line along the length of Route 9W through Haverstraw. These improvements could include ADA-compliant sidewalks, historic streetlamps and street furniture, wayfinding and modernized crosswalks following the "complete streets" design guidelines. (See Section 5.9 Complete Streets below.)

Recommendation 5.d.2: Encourage a "walk-to-coffee" ecosystem downtown.

Given the Village's goal of attracting more businesses that will bring 24/7 activity to downtown, there is greater focus on supporting innovative ways of working. As the work force shifts to more Millennials, there are an increasing number of employees and entrepreneurs working from home and looking for inspiring, nontraditional work spaces. Alternatives to the living room, home office or traditional workplace, known as the "third place," are being found in coffee shops, cafes, bars and other relaxed meeting places. These workers are also conducting business at nontraditional hours and can help fuel a vibrant and growing downtown business district that works around the clock with a new lifestyle.



LEGEND:
 Strengths
 Weaknesses
 Opportunities
 Threats

Figure 5-6: Existing Pedestrian & Bicycle Mobility

Recommendation 5.d.3: Develop and connect all waterfront greenways to create a cohesive network for pedestrians and bicyclists.

Much of the downtown core is within less than a quarter of a mile walk (or approximately 5 minutes) from the Hudson River. In agreement with Scenic Hudson's principle of connecting people to the River,⁹ the Village intends to link the downtown and residential neighborhoods to the riverfront as well as connect riverfront greenways with each other. Waterfront paths offer opportunities to build a scenic pedestrian network for leisure and recreation as well as a connection to public transportation hubs like the Haverstraw-Ossining Ferry.

The Village's vision is to make the entire riverfront publicly accessible over time. It encourages more privately-owned properties on the waterfront to create POPS (privately-owned public space) as part of that network for public access. While a number of exciting riverfront esplanades and greenways have been proposed, a cohesive network also needs to be developed to ensure they are connected to each other. Among the existing and proposed greenways are the Minisceongo Creek, Bowline Point Park, HHQP, Emeline Park, and the promenade at the Harbors. New York State supports a larger effort for a continuous pedestrian path stretching from New York City to Albany along both sides of the Hudson River. So far, the Village has received \$1 million in New York State grant funds to start work on the promenade in Emeline Park. Another \$1.5 to \$2 million is estimated for completion.

The waterfront greenway network also has the potential to interconnect the Village's open spaces at the waterfront with those at higher elevations, such as High Tor. (See Map 5-3: Greenways and Open Spaces.)

Nyack Waterfront Trail – A combined pedestrian and cycling path extends from the south end of Haverstraw at Dutchtown along the Hudson River to Nyack with connections to North Beach State Park and Rockland Lake State Park. This trail is currently chained off when

it reaches Nyack's border with the Village. There is also a lack of parking facilities at the trailhead. This trail has the potential to continue north up through Dutchtown and into Haverstraw. At the moment, however, there are no sidewalks or bike lanes along Riverside Avenue through Dutchtown or the adjacent Tilcon Yards. Workshop participants report being hesitant to drive south through the Tilcon Yards. Instead, they drive and park at Rockland Lake to get onto the trail.

Recommendation 5.d.4: Develop a “Safe Routes to School” program to improve pedestrian infrastructure for students and school personnel.

Residents report some concerns about safety for school children, particularly at rush hours. There is currently no Safe Routes to School program. (CSC 6.13) Pedestrian infrastructure along school routes that could be considered for improvements include street guards, sidewalks, crosswalks, and ADA-compliant curb ramps.



Students leaving Haverstraw Elementary School
Credit: Nautilus International, January 2019

Recommendation 5.d.5: Improve pedestrian access to the ferry landing.

Neighborhoods adjacent to the location of the ferry terminal, such as Harbors at Haverstraw and the southern Village core, are within walking distances of a 5 to 15-minute walk. However, the current ferry location is not within a comfortable walking distance for a majority of Haverstraw residents.

A roundabout has been proposed for the intersection at Maple Avenue and West Street to encourage traffic calming, increase pedestrian safety and create a welcoming gateway to/from the downtown.



Aerial overlay showing possible roundabout and crosswalks at the intersection of Maple Avenue and West Street

Currently, residents report cars speeding on Riverside Avenue and as they turn around the bend on Dr. Girling Drive from the ferry parking lot. The speeding combined with a lack of sidewalks, crosswalks, bike lanes, signage and street lighting at Girling and Maple Avenue discourage pedestrian and bike access to the ferry. Some are carrying

flashlights at night to ensure cars can see them. The ferry parking lot itself lacks any pedestrian pathways, signage or crosswalks.

Recommendation 5.d.6: Improve gaps in the streetscape by limiting curb cuts and front yard parking along main pedestrian routes.

Residents cited the lack of continuity of sidewalks as a deterrent to walking. These gaps in the streetscape are sometimes due to auto-related businesses with long curb cuts where cars cross the sidewalks and to buildings that are set back from the sidewalk with parking areas directly fronting onto the street. The Village should develop guidelines that limit the length and spacing of curb cuts, and encourage consolidating curb cuts for adjacent properties while shifting business curb cuts to side streets.

Recommendation 5.d.7: Connect waterfront trails for hikers.

Haverstraw's long and dynamic shoreline along the Hudson River and its access to High Tor State Park allow for a variety of potential great hiking and leisure activities.

Like the greenways, many of the existing hiking trails are not linked together into a cohesive network. Connections from the HHQP to Haverstraw Beach State Park and the Hook Mountain State Park Trails in Clarkstown could be improved and work together to help offer hikers a variety of options. (Also see Chapter 6, Natural Resources and Open Spaces.)

Recommendation 5.d.8: Improve access to High Tor State Park for hikers.

The possibility of improving access to trails in High Tor State Park, such as the Long Path, from the Village should be explored. Direct access to High Tor would provide an opportunity for the Village to promote itself as a gateway to the park. One opportunity is to connect through a Village-owned property off Dowd Street. Appropriate locations for

parking, wayfinding, public safety and trash removal would need to be considered. Deforestation and fire hazards should be minimized.

Another possibility previously proposed by the developer of Harbors is to construct a cable car system up to the ridge of High Tor as a tourist attraction. The impacts of this on the scenic assets of the Village and the tangible benefits to its residents and businesses would need to be carefully considered. Design parameters should be established in advance of any discussions of a cable car with New York State.

5.7 BICYCLES: ACCESS, CIRCULATION & PARKING

The Village currently contains only approximately ½ mile of dedicated bicycle path. An additional 1.75 miles of shared or unimproved bike lanes run through the Village.

Objective 5.e: Provide safe infrastructure to support non-motorized transportation by creating a bicycle network to accommodate both local and regional cyclists.

The unimproved bike routes may be perceived as hazardous to bikers because they follow local highways and roads with no dedicated shoulder and may not be easily identified or utilized as a “bike route.”

Recommendation 5.e.1: Add bicycle paths, sharing, parking and wayfinding in the Village,

Developing additional bicycle pathways and parking, and adapting key streets into “complete streets” (streets that work for all types of users from pedestrians of all ages to cyclists and drivers) will provide greater opportunities for connectivity to multiple modes of transportation and contribute to an increase in non-motorized vehicle work trips. (CSC 6.9 and 6.10) Bicycle parking and sharing could be added to Village parking lots and would encourage local bicycle use. Improved wayfinding, both physical and digital, will help direct cyclists to

appropriate streets and destinations. Other programs to encourage bicycle-commuting to work include allowing indoor bike parking and providing shower facilities in offices.

Recommendation 5.e.2: Work with NYS DOT to add defined bike lanes to Route 9W through the Village.

NYS Bike Route 9W offers a much-traveled cycling route which runs through the Village and connects between New York City, Bear Mountain State Park and West Point Military Academy. There is a dedicated cycling path from the Village south to Nyack. However, cyclists report dangerous conditions on this regional trail in the Village of Haverstraw, which has narrow shoulders with no defined bike lanes. (Also see 5.2.9 Route 9W Corridor above.)

5.8 BOATS



Ships that Sailed the Hudson, 2016, Haverstraw RiverArts Community Tile Project
Credit: NPV, November 2019

As mentioned above, the Village of Haverstraw developed historically because of its connections to the Hudson River. Boating is already a vibrant part of its waterfront, which is unique in the region for having a long and accessible shoreline. While most of the shore is within walking distance of downtown, there are currently few opportunities for kayaking, paddleboarding, or boating. The Village should reimagine its historic relationship with the River, but reimagine it as a new source of public recreation and future transportation. Developing

docks and boathouses that can store and rent small boats, kayaks, and paddleboards can provide both economic and social opportunities that will enhance the Village's identity.



Village Dock off Emeline Park
Credit: Nautilus International, June 2019

Objective 5.f: Enjoy the Hudson River waterfront by increasing access and docking facilities for all types of waterborne-transportation.

Recommendation 5.f.1: Begin a feasibility study for a multi-purpose pier at the foot of Main Street.

Enthusiastic support was received at public workshops for increased opportunities to access and enjoy the Hudson River. A new multi-purpose pier at the foot of Main Street off Emeline Park could be designed to allow many different types of vessels – from recreational and transient boats to historic tour boats – a place to find berthing facilities. For example, a project is underway to restore the SS Columbia, a 1902 passenger steamer, for tours between New York City

and the Hudson River Valley. In addition, a new pier would offer a place to experience the magnificent views up and down the Hudson River, provide fishing stations, and enjoy one of the Village's major assets. Whether or not a ferry landing is part of the ultimate plan, a multi-purpose pier should be a top priority. (Also see Chapter 9, Infrastructure and Utilities.)



Map of Village of Haverstraw in 1854
Credit: Haverstraw Brick Museum, Map by George E. Leefe, 1854

Recommendation 5.f.2: Improve and expand the existing public dock.

There is currently a public dock in Emeline Park with an adjacent municipal parking lot and boat launch. Future plans have been discussed for a regional boathouse to host regattas and rowing clubs throughout Rockland and lower Orange Counties. On National Learn to Row Day, held every year on the first Saturday of June, the North

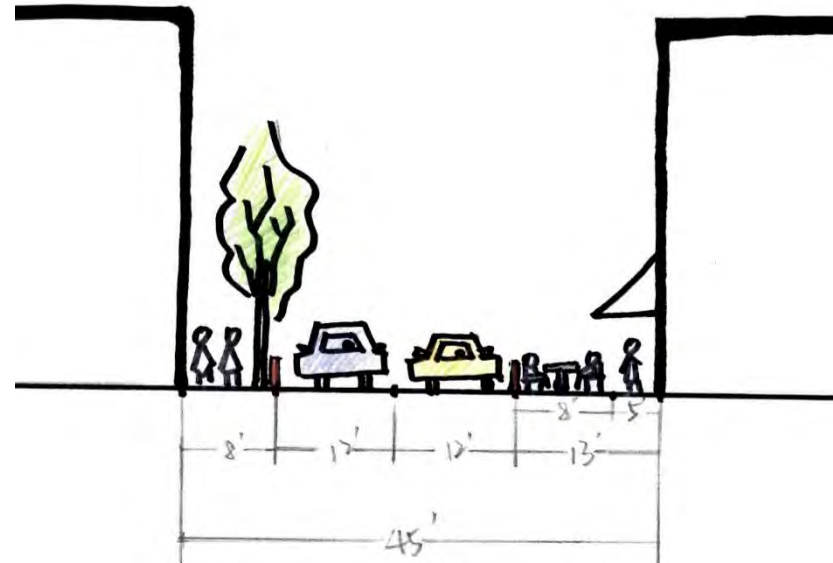
Rockland Rowing Club (NRRC) hosts an event at the Haverstraw-Ossining Ferry landing. The NRRC has invested in a dock facility on Bowline Pond for kayaking, rowing and sculling. More kayak launches and recreational boat docks have been requested by residents.

5.9 COMPLETE STREETS

Objective 5.g: Continue to advance a Complete Streets Policy.

Communities across the country are joining the movement to “Complete the streets” by redesigning their roadways to be safer, more livable and welcoming to everyone – drivers, transit riders, pedestrians and bicyclists - no matter what their age, abilities or types of transportation. Here in New York State, the Complete Streets Act went into effect in 2012 and commits the NYS Department of Transportation (NYSDOT) to evaluate all forms of transportation that are recognized to support economic growth, safety and sustainability goals.¹⁰ Many policies and procedures are now in place at the State level to support the implementation of Complete Streets principles. The County of Rockland has also embraced a Complete Streets policy. In the Village of Haverstraw, the new streetscapes completed in the downtown core already incorporate Complete Street principles. RPA’s Fourth Regional Plan summarizes the benefits: “Designing streets for people will make lower-cost transportation like biking, walking, or riding the bus safer and more pleasant, and encourage healthy physical activity.”¹¹

Typical complete street design would include features like pedestrian-friendly sidewalks, bicycle lanes, paved shoulders suitable for use by bicyclists, signage, crosswalks, pedestrian control signals, bus pull-outs, curb cuts, raised crosswalks, ramps and traffic calming measures. The advancement of Complete Streets would contribute to a “cleaner, more environmentally friendly transportation system” where “more citizens will receive health benefits related to active forms of transportation while reducing traffic congestion and car-related air pollution.”¹²



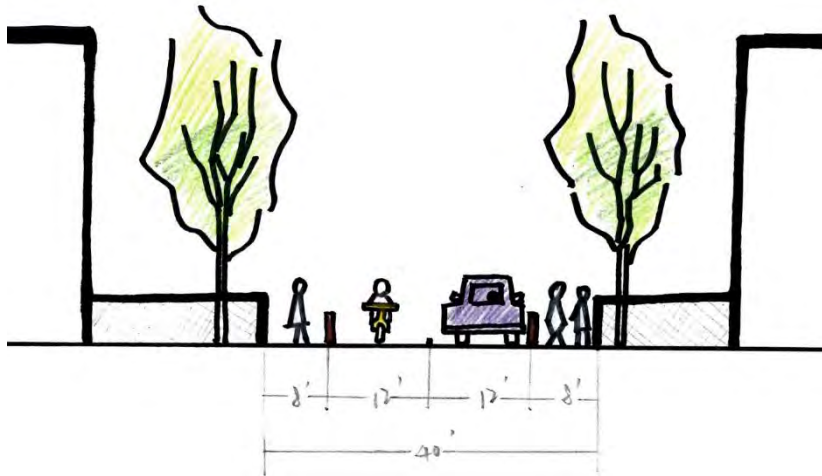
Conceptual cross-section through Broadway North showing a seasonal sidewalk café on a “parklet” and street trees

Credit: Nautilus International, August 2019

Recommendation 5.g.1: Prioritize Complete Street improvements for Broadway North and West Broad/Broad Street.

While Broadway and West Broad/Broad Street have relative narrow rights-of-way, both play important roles in the vibrancy of the downtown. Broadway could be considered for the addition of street trees and “parklets,” temporary use of on-street parking spaces for seasonal amenities, such as an outdoor cafe adjacent to a restaurant.

West Broad/Broad Street should be considered as part of the connectivity for greenways through the downtown to the riverfront from Maple Avenue to First Street. As mentioned above (in Section 5.2.7 Downtown Corridors), this will help take some of the traffic pressures off of New Main/Main Street. Given the narrow width, bike lanes will need to “share the road” with vehicles and trees should be encouraged flanking the street in the front yards of homes and other buildings along the corridor.



Conceptual cross-section through Broad Street showing shared vehicle/bicycle lanes and trees in front yards

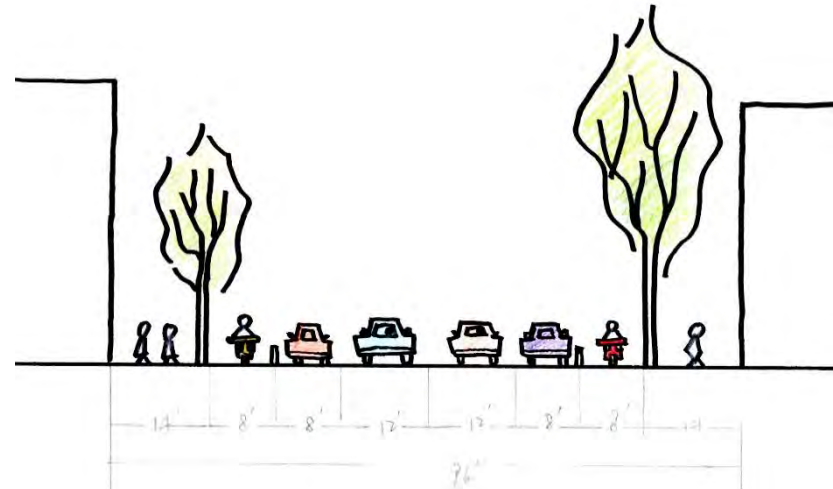
Credit: Nautilus International, August 2019

Recommendation 5.g.2: Develop and adopt local design standards to incorporate Complete Streets into all phases of future project developments, including their planning, design, approval, construction, maintenance and community participation processes.

When new projects are proposed for development in the Village, there will be opportunities to call for community engagement in their street planning and design. For example, the future development of the Tilcon Yards could incorporate Complete Streets from the beginning of the process.

In West Haverstraw, a street steering committee has been set up to guide the development of Complete Streets. Their goals go beyond safety to embrace context-sensitive issues like adjacent land uses, neighborhood character and aesthetics, historic architecture, and demographics. In addition, an ongoing protocol has been put in place for dialogue between community members and the government agencies involved.¹³

Recommended: December 2019 – Adopted: July 2021



Conceptual cross-section through future street showing shared vehicle/bicycle lanes, wide sidewalks and street trees

Credit: Nautilus International, August 2019

5.10 TRANSPORTATION & CLIMATE CHANGE

The effects of climate on transportation systems serving the Village of Haverstraw cover a variety of issues ranging from flooding and service delays to increased costs of maintenance.¹⁴ Overall, it is important to build community resilience to climate-related risks and educate the public about both climate change mitigation and adaptation. (CSC #7 and 9).

Objective 5.h: Chart a path toward a lasting future that both addresses the underlying causes of climate change and helps the Village's transportation systems be prepared to adapt to its impacts.

Recommendation 5.h.1: Perform a watershed assessment to inform decision-making and develop a stormwater management plan for the Village and its transportation systems.

Analyze the hydrodynamics of the Village from High Tor to the Hudson River within a comprehensive watershed assessment to generate a complete picture of the impacts on the transportation system of both gradual sea level rise and more frequent and intense precipitation; identify erosion, water quality and flooding priorities; and ensure watershed conservation. (CSC 7.10) Based on that assessment, a stormwater management plan for the Village needs to be designed to ensure protection of future transportation systems. (Also see Chapter 9, Infrastructure and Utilities.)

Recommendation 5.h.2: Conduct scenario planning to help design emergency transportation plans that consider disruptions due to changes in climate.

While the Village already has emergency plans for a number of events that are related to climate change, those plans need to be recalibrated to handle accelerating impacts and the potential for cascading scenarios where more than one system fails at a given time. For example, utility systems may experience damage which in turn affects communications, which in turn affects the effectiveness of emergency responders, which in turn affects the ability of residents to locate safe evacuation routes.

5.10.1 Coastal Vulnerability

A *Coastal Vulnerability Inventory* was conducted as part of the comprehensive planning process. (See Volume 2.) Both gradual sea level rise and increases in precipitation from storms are anticipated to cause flooding on the following roadways in the Village:

- MacKenzie Avenue near the intersection with Bowline Plant Road
- Bowline Plant Road along the north shore of Bowline Pond and neck leading to Bowline Town Park
- Dr. Girling Drive
- Riverfront Lane and the eastern portions of Edge Water Lane, Harbor Point Drive and Leeward Drive in Harbors at Haverstraw.

In addition, the following transportation elements in the Village are vulnerable to flooding:

- Parking lots and pier at Bowline Town Park
- Intake docks at Bowline Generating Station
- Municipal parking lot and boat launch in Emeline Park
- Haverstraw-Ossining Ferry parking lot
- Barge loading docks at Tilcon Yards
- Private docks at Dutchtown.¹⁵

Potential actions to address coastal vulnerability of transportation systems for the Village include:

- Assess capacity of existing stormwater management systems and other utilities on roadways. (Also see Chapter 9, Infrastructure and Utilities.)
- Consult with Bowline Generating Station and Tilcon Yards about impacts of flooding on their shipping operations.
- Consider more green infrastructure solutions and stormwater retention areas to reduce flooding on roadways. (CSC 7.16)
- Increase permeable pavements and reduce impervious surfaces, with elements such as rain gardens, bio-swales, and bio-retention planters.
- Consider requiring sea-level rise planning for transportation systems in future coastal development. (CSC 7.20)

5.10.2 Warmer Winters

The gradual increase in temperatures will also bring warmer winters. These could cause more freeze/thaw cycles, increasing maintenance costs for the resulting effects on pavements, such as potholes, cracks and frost heaves. However, the costs of snow removal and road salting may be lowered, and the reduced ice cover on the waterways will increase the navigation season.

Potential actions to address warmer winters on transportation systems for the Village include:

- Plan ahead for shifts in maintenance needs and associated costs on roadways.

5.10.3 More Frequent & Intense Precipitation

Increased precipitation in the form of more frequent and more intense rain and snow events will mean that current stormwater drainage systems may become overloaded. This can cause streets and roadways to erode and trails to be washed out. Culverts under roadways may be undersized to handle these increases. Snow removal costs may also increase due to frequency of storms.

In terms of transit and air travel, more severe storms could result in additional service delays either from tracks, runways or roadways that need to be cleared of water, snow or debris or from high winds.

Increased erosion upstream can bring increased sediment loads to the Hudson River with an associated increase in the need for dredging to maintain navigation. Conversely, droughts at other times may reduce river levels and result in sediment redistribution.

Potential actions to address more frequent and intense precipitation on transportation systems for the Village include:

- Analyze the hydrodynamics of the Village within a watershed assessment as mentioned above. (CSC 7.10) (Also see Chapter 9, Infrastructure and Utilities.)
- Rightsize culverts beneath roadways. (CSC 7.21)
- Incentivize “green streets” that reduce stormwater runoff and lower the heat island effect.
- Stabilize shorelines where needed to protect transportation systems and consider adding flexibility within floodplains for restoration, conservation and buffers in other areas. (CSC 7.12)

- Use nature-based shoreline protection for transportation elements vulnerable to flooding where possible. (CSC 7.18)
- Prioritize the use of waterways with more public transit by ferry.
- Replace paved areas downtown, such as parking lots, with pocket parks and other stormwater retention areas.
- Design municipal buildings with green roofs to capture and recycle stormwater before it reaches ground level and floods streets.
- Update early warning systems and plans for community evacuation routes. (CSC 7.22)

5.10.4 Extreme Heat Events

With heat waves expected to increase in number and frequency, the following effects on transportation networks can be anticipated.

- Damage to pavements on roads, bridges and airport runways
- Power outages affecting traffic, rail and airport signals and transportation flows
- Construction delays to protect workers’ health
- Damage to railroad tracks and other infrastructure, such as electrified third rails and wires
- Passenger discomfort and service delays.

Potential actions to address extreme heat events on transportation systems for the Village include:

- Develop a heat emergency plan, including for the transportation systems. (CSC 7.7)
- Establish a program to increase street trees and other shade structures downtown, at transit hubs and in public spaces. (CSC 7.8)
- Improve shading and landscaping of municipal and other parking lots to reduce heat islands.

→ Insulate municipal structures, such as bus stops, with green roofs or “cool roofs.”

¹ National Conservation Training Center, Fish and Wildlife Service. *Study of NY/NJ Bight Habitats, Significant Habitats and Habitat Complexes of the New York Bight Watershed, Lower Hudson River Estuary*, nctc.fws.gov/resources/knowledge-resources/pubs5. Section VI: Ecological Significance/Uniqueness of Site. Accessed March 6, 2019.

² Ibid.

³ Joint Comprehensive Plan/LWRP Committee. *Raw Results of Workshop #4: Sustainability and Climate Change*. May 1, 2019. (See Comprehensive Plan - Volume 2.)

⁴ Regional Plan Association. *The Fourth Regional Plan*, 2018, page 12.

⁵ Ibid.

⁶ “River Subdivision (CSX Transportation),” Wikipedia. [https://en.wikipedia.org/wiki/River_Subdivision_\(CSX_Transportation\)](https://en.wikipedia.org/wiki/River_Subdivision_(CSX_Transportation)). Accessed February 2019.

⁷ “Stop the Bomb Train.” New York State Nurses Association. <https://www.nysna.org/stop-bomb-trains>. Accessed February 2019. And Lopez, Linda. “Help Stop Bomb Trains”. October 19, 2016. Catskills Mountainkeeper.

https://www.catskillmountainkeeper.org/help_stop_bomb_trains. Accessed February 2019.

⁸ Regional Plan Association. *The Fourth Regional Plan*, 2018, page 12.

⁹ Scenic Hudson. *Revitalizing Hudson Riverfronts*. Scenic Hudson, 2010, page 35.

¹⁰ New York State Department of Transportation. *New York State Complete Streets Report, Executive Summary*.

¹¹ Regional Plan Association. *The Fourth Regional Plan*, 2018, page 12.

¹² New York State Department of Transportation. *Complete Streets*. <https://www.dot.ny.gov/programs/completestreets>. Accessed 1 Aug. 2019.

¹³ <https://www.smartgrowthamerica.org/app/legacy/documents/cs/policy/sc-ct-newhaven-manual.pdf>. Accessed August 2019.

¹⁴ Mid-Hudson Planning Consortium. *Mid-Hudson Regional Sustainability Plan*. 2013.

¹⁵ *Coastal Resiliency & Sea Level Rise*, Village of Haverstraw Comprehensive Plan, Volume 2.



6

NATURAL RESOURCES &



6 NATURAL RESOURCES & OPEN SPACES

6.1 INTRODUCTION: FROM RIDGE TO RIVER

6.2 THE HUDSON RIVER

- 6.2.1 Maintaining the Health of the Hudson River
- 6.2.2 Minisceongo Creek Restoration

6.3 UPLAND OPPORTUNITIES

- 6.3.1 “Central Park” & Existing Open Spaces

6.4 EDUCATION & STEWARDSHIP

- 6.4.1 Emeline Park, HHQP & Bowline Town Park
- 6.4.2 High Tor & Haverstraw Beach State Parks

The Village of Haverstraw is defined by significant regional natural resources, namely the Hudson River Estuary and the Palisades which support aquatic, amphibian and terrestrial animal and plant life that extends beyond its physical borders. The Village contains portions of two State Parks and shoreline, wetlands and tributary floodplains, all of which this plan recommends revitalizing and protecting through educational programs and initiatives. Promotion of a floating educational center on Bowline Pond, revitalization of the Minisceongo Creek corridor and floodplains, and the conversion of open spaces in the Village to functioning ecosystems are some cornerstone recommendations of this plan.

OPEN SPACES

6 NATURAL RESOURCES & OPEN SPACES

6.1 INTRODUCTION: FROM RIDGE TO RIVER

The Village of Haverstraw contains impressive and important natural resources from ridge to river. The Village is framed by natural resources and open space that make Haverstraw a visually unique place to live.

High Tor State Park forms the western boundary of the Village and is notable for the stark cliffs and looming mountains visible from most points in the urban Village. High Tor is home to rocky summit grassland, significant natural heritage areas, and is itself classified as a Significant Biodiversity Area, meaning it has a high concentration of biological diversity.^{1 2}

Forming the eastern boundary of the Village is the widest point of the Hudson River Estuary, known as Haverstraw Bay. The River runs from the Adirondack Mountains through the Verrazano Narrows of New York and New Jersey and into the Atlantic Ocean. The Hudson is a tidal estuary, meaning its water is brackish and experiences tides as far north as the City of Troy, though the “salt front” shifts regularly given regional conditions.³ Because the Hudson River ebbs and flows with the ocean tide, it supports a biologically rich environment for aquatic and land animals alike, and provides essential spawning and breeding habitat for many aquatic species. Because of this, and its protected location, Haverstraw Bay is designated a Significant Coastal Fish & Wildlife Habitat and itself is a Significant Biodiversity Area due to large expanses of shallow water that captures sunlight for phytoplankton, which ultimately provides nutrition for fish nurseries and habitat for overwintering, including the endangered Shortnose Sturgeon. These nurseries support the commercial and recreational fisheries throughout the northeastern United States.⁴



Palisades and Hudson River Significant Biodiversity Areas

Credit: Village of Haverstraw, 2017

These natural resources can be enjoyed by the residents of Haverstraw through access to a number of passive and active recreation areas and open spaces interspersed throughout the Village. This includes Village, State and Town Parks, as well as private open spaces such as cemeteries and school yards.

The following chapter discusses the Natural Resources and Open Spaces within the Village of Haverstraw through the lens of the following goals:

Goal 2: Highlight the identity of the Hudson River to the Village of Haverstraw by enhancing scenic and physical connections to the River.

Goal 3: Improve access to natural and recreational resources for all Village residents and visitors.

Goal 6: Maintain and enhance the sustainability of Village life.

The sections will then discuss relevant objectives and recommendations set to achieve these goals.

6.2 THE HUDSON RIVER & HAVERSTRAW BAY

The Haverstraw Bay ecosystem is sensitive to any activity that would degrade water quality, increase turbidity, or alter flows, salinity or temperature. "The discharge of sewage... or stormwater runoff... may result in significant adverse impacts on the habitat area."⁵ NYS Department of State specifically recommends that "existing vegetated areas bordering Haverstraw Bay should be maintained and where possible restored to provide bank cover, soil stabilization, maintain or improve water quality and provide buffer areas from development."⁶ It is important the Village remain a steward of this irreplaceable ecosystem by balancing the economic, recreational and educational benefits of water dependent activity, with the protection and revitalization of the Haverstraw Bay ecosystem.

Scenic Hudson, in their 2010 publication *Revitalizing Hudson Riverfronts: Illustrated Conservation & Development Strategies for Creating Healthy, Prosperous Communities* provides a list of adaptation and mitigation techniques for riverfront communities in the era of climate change. The primary adaptation strategy includes the preservation and restoration of floodplains and riparian areas to maintain a vegetated riverfront extending into the 100-year floodplain boundary or 100 feet from the mean high-water line, whichever is greater. The publication also notes that increasing green space and tree cover in urban areas helps to reduce energy needs and provides environmental benefits like reducing air pollution and water pollution.⁷ Many of the recommendations made in this chapter such as techniques to improve Hudson River and tributary water quality through the use of living shorelines, enhancing existing urban areas with vegetative plantings and restoring important riparian, floodplain and wetland habitats, are in line with Scenic Hudson's 2010 publication.

Objective 6.a: Maintain scenic vistas throughout the Village through open space and viewshed protection.

The Hudson River is not only a designated significant regional and state natural resource, but a local landmark in the Village of Haverstraw. The Village's urban fabric, developed around river industry and vistas throughout the Village, features views of the widest point of the Hudson River. These viewsheds, as well as physical access to the River, are important to connect residents to their landscape and foster a sense of stewardship and responsibility for these important natural resources.

Chapter 8.2, Historic & Cultural Assets, discusses methods for ensuring visual access to the River and High Tor Mountain remain unmarred, by preserving key open spaces and enacting height limits based on topographic characteristics along key sites on the Riverfront. Enhanced access to the Riverfront is discussed in chapter 5, Transportation.

Recommendation 6.a.1: Develop and adopt a Natural Resources Inventory and Open Space Plan.

"Natural Resources Inventories compile and describe important naturally occurring resources within a given locality."⁸ The completion and adoption of a natural resources inventory (NRI) can provide the Village with up to 10 points towards becoming a Climate Smart Community, and will help the community to prioritize areas that should be conserved or restored. The NRI can act as the baseline for an Open Space Plan, which prioritizes areas within the Village that should be protected for their open space, natural resources or recreational value.

6.2.1 Maintaining the Health of the Hudson River

Objective 6.b: Improve Hudson River and tributary water quality to create a swimmable waterfront by 2050.

As an estuary, or a brackish, tidal body of water, the Hudson River supports a diversity of species both within and reliant upon its waters for sustenance and habitat. The estuary provides spawning and

nursery grounds for commercially valuable fish, crabs, and shellfish, and the lands surrounding the estuary, known by NYS DEC as the Hudson River Estuary Region, contains nearly 85% of the bird, mammal, reptile, and amphibian species found in New York State. The connection between the River and the land around it is inextricable - the health of the land and the shoreline of the River impacts the health of the estuary.⁹

Recommendation 6.b.1: Incentivize the use of living shorelines and regenerative riparian ecosystems to retain, preserve, restore and enhance the existing shoreline environment.

The majority of the shoreline within the Village of Haverstraw is unimproved (Volume 2, Map 9B, *Shoreline Infrastructure*), meaning there no rip rap or bulkhead supporting the shoreline and protecting it from erosion due to flooding, wind or tidal action. While shoreline improvements protect the shore from erosion, they introduce an unnatural hard edge between the shore and the river, called the "riparian" edge. Riparian ecosystems, much like estuary ecosystems, provide a habitat for plants and animals that rely on this unique ecosystem to eat, reproduce and stay protected when young.

Natural or "living shorelines" are a green infrastructure technique that uses native vegetation alone or in combination with hard or "grey" infrastructure to stabilize the shoreline.¹⁰ Plants secure the shoreline with their roots, and provide shelter and food not only to aquatic and amphibious species but also to shore birds and other land-based species. Research shows that living shorelines are more resilient (and less expensive) than bulkheads in protecting against hurricanes.¹¹

The Village should assess its shoreline conditions to determine areas where living shorelines would be most valuable. For example, the unimproved area along Dutchtown (featured in this Chapter's cover image) is characterized by steep cliffs down to the River, and those cliffs are generally protected already by the strong roots of vegetation. Areas such as the Chair Factory site and Emeline Park feature bare, unprotected shoreline, and even areas within Bowline Pond and the

Henry Hudson Quadricentennial Park (HHQP), though protected from the currents of the River, would benefit from enhanced shoreline and wetland plantings to attenuate wind and tidal erosion during storm events. Restoration of floodplains and riparian buffers can receive up to 10 points for the Climate Smart Communities program (PE 7).

Recommendation 6.b.2: Prioritize areas within the Village for wetland and Sub Aquatic Vegetation (SAV) establishment, restoration, enhancement or protection and use this assessment to guide future compensatory wetland mitigations, private development outcomes and local stewardship initiatives.



HHQP pathway erosion damage after Hurricane Sandy

Credit: McLaren Engineering & RGR Landscape: HHQP Final Schematic Plan, 2012

The Village of Haverstraw contains both freshwater and tidal wetlands within its boundaries as well as Sub Aquatic Vegetation (SAV) (Volume 2, Map 5E, *Ecological Resources*). Wetlands and SAV along the Hudson provide habitat for young fish; act to attenuate wave action from flooding, storm surge and wind/waves; and filters sediments and pollutants and prevents them from reaching the Hudson River. The New York State Department of Conservation (NYS DEC) and the Federal Army Corps of Engineers (ACOE) regulate wetlands and require that if wetlands must be disturbed by development,

"compensatory wetlands" must be designed and built. Compensatory wetlands can be on- or off-site depending on a variety of factors unique to the site and DEC/ACOE standards. Having a prioritized list of areas that would benefit from restored, expanded or new wetlands can help the Village take a proactive approach to protecting the shoreline.

Areas the Village may consider for wetland enhancement, restoration or establishment could be:

- Areas adjacent to MS4 stormwater outfalls
- Areas where existing sub-aquatic vegetation has been documented
- Areas where the riparian edge is shallow and protected, i.e.: Admirals Cove Marina, the Bowline Pond shoreline, and the wetlands north of Tilcon (note that the first two areas coincide with MS4 outfalls)

Conservation of wetlands and forests to manage stormwater and mitigate flooding can receive up to 8 points for the Climate Smart Communities program (PE 7.17)

Recommendation 6.b.3: Mitigate stormwater pollutants entering the Hudson River through upland mitigation and green infrastructure techniques such as rain gardens and bioswales.

As discussed in Chapter 9, Infrastructure and Utilities, green infrastructure technology can go a long way towards remediating pollutants that get caught in stormwater runoff. In addition to mitigating stormwater, green infrastructure in the urban environment can provide habitat for pollinator species such as hummingbirds, bees, beetles and butterflies and can mitigate the urban heat island effect. Adoption of green parking lot standards can achieve up to 4 points for the Climate Smart Communities program (PE 6.8)

Recommendation 6.b.4: Investigate upgrades to industrial infrastructure along the River to ensure that water intake and discharge is sanitary.

In addition to MS4 stormwater outfalls, the Haverstraw Village Riverfront does contain some industry, including Tilcon Quarry and the Bowline Power Generation Plant. Environmental upgrades to the intake structure at the Bowline Plant should be studied as part of a collaboration with West Haverstraw on the Bowline Generating Station's large volume of water withdrawn from Bowline Pond and discharged into the Hudson River.

6.2.2 Minisceongo Creek & Bowline Pond Restoration

Objective 6.c: Restore the waterflow along the Minisceongo Creek and establish the creek edge as a greenway or promenade extension and non-motorized connection to Route 9W and Garner Arts Center.



Minisceongo Creek

Credit: Nautilus International, June 2019

Recommendation 6.c.1: Involve organizations such as Hudson Riverkeeper, Cornell Cooperative Extension, NYS Office of Climate Change, NYS Department of Environmental Conservation, Lamont Doherty Earth Observatory and other local groups to invest in the health of the Minisceongo Creek floodplain and wetland habitat.

Recommendation 6.c.2: Ensure that Bowline Power Plant and other facilities in Haverstraw with National Pollutant Discharge Elimination System (NPDES) Permits and NYS DEC State Pollutant Discharge Elimination System (SPDES) permits are not in violation of those permits.

The Minisceongo Creek Corridor runs 11 miles through three towns in Rockland County and is a tributary to the Hudson River, following the northern boundary between the Village of Haverstraw and the Town of West Haverstraw, and running through the Bowline Power Plant facility before emptying into the River just north of Bowline Town Park.

Currently, the creek is channelized, or its floodplain is restricted by development, along much of its length. Channelization means that the banks of the creek are built up using concrete, piled rocks and other materials. This impacts the creek's natural flow and therefore its health. Channelization prevents streams from expanding into the natural floodplain during storm events and increases the volume and velocity of water as it moves through a smaller, channelized space. This can impact plants and animals living in the creek as the water flows faster than plant and animal residents of the creek can handle, and intensifies flood events, increasing the potential for damage to homes and Village infrastructure. In addition, channelization discourages plant growth along the creek corridor, making the area sunnier and therefore warmer and less hospitable to native fish, plants and amphibians. Plants that *can* grow in the materials used for channelization are often hardy invasive species, which can create monocultures (large areas with just one species) of plants and are not suitable habitat for native fauna. Restoration of the creek floodplain and wetland habitat in particular should improve water quality and mitigate impacts to flooding in the surrounding areas. This project

would also qualify for Climate Smart Community points within PE.7 "Restoration of Floodplains & Riparian Buffers" (up to 10 points)

Recommendation 6.c.3: Maintain a dialogue with Bowline Power Plant to encourage facility upgrades such as ensuring the facility is floodproofed and encouraging the switch from once-through cooling to closed-cycle cooling.

As the Minisceongo Creek passes the Bowline Power Plant right before entering the River, the streambanks are particularly channelized. It is unclear how proximity to the energy plant impacts the water quality of the creek; however, water quality is notably poor along this length of the creek, and the Bowline Power Plant does in fact have a permit for pollutant discharge into the Hudson River.¹² According to Hudson Riverkeeper, the Hudson River hosts four power plants (including Bowline) that rely on 1950's technology called once-through cooling. This is a process where water is withdrawn from the Hudson River to cool the power plant, and the warm water is then discharged back into the river. This technology intakes billions of gallons of river water each day and kills fish, eggs and larvae that get sucked up into the power plant and trapped in intake screens, or which are negatively impacted by warm water being discharged from the plant.¹³

The detailed facility summary for Bowline Power Plant NPDES permit per the U.S. EPA shows that the plant has not complied with the terms of their permit under the Clean Water Act for 11 of 12 quarters, and has a dozen significant violations of their permit under the Clean Air Act. Research shows that Bowline's violations are likely due to late or unsubmitted reports. However, violations of reporting requirements may indicate that pollutant limitations are not being tracked and therefore could also be in violation. The Village should regularly refer to the EPA database and maintain a dialogue with Bowline Power Plant and Hudson Riverkeeper to ensure that facilities within the Village are compliant with their NPDES and SPDES permits to ensure safety to the surrounding community. In addition, the Village should also engage with Bowline Power Plant to advocate for facility upgrades. These would significantly improve the health of the Bowline Pond and

Haverstraw Bay ecosystems, which are critical nursery habitats to the region's fishery, as well as improve public health through improved air quality.

6.3 UPLAND OPPORTUNITIES

Objective 6.d: Preserve, restore and enhance existing natural environments.

Recommendation 6.d.1: Incorporate natural resources into the urban fabric to provide habitat for pollinators, mitigate stormwater pollution and the urban heat island effect, and improve air quality.

Recommendation 6.d.2: Develop landscape guidelines for parking areas.

As an urban Village, Haverstraw can incorporate natural resources into existing open spaces throughout the downtown for a multitude of benefits: mitigating stormwater, reducing the impacts of heat waves, and developing urban ecosystems that can contribute to the mitigation of habitat segmentation caused by human development. Vegetation also acts to sequester carbon and purify the air.

The recent streetscape improvements in the Village's business district have been well received by residents and visitors as they provide a clear separation between the auto and pedestrian realm. Enhancing these streetscapes and future streetscapes within the Village with planted medians, street trees, stormwater gardens and similar planted areas is recommended to continue to increase the visual barrier between vehicles and pedestrians, as well as to provide the above referenced benefits (see also Chapter 5, Section 5.3)

In addition, capital projects or any new complete streets projects should consider incorporating landscaping as part of traffic calming techniques such as landscaped bump outs or roundabouts. The Village could also develop parking lot standards that require green infrastructure and ecologically beneficial landscaping to be

incorporated into parking area design. (Also see Chapter 5, Section 5.3 Vehicles: Access, Circulation & Parking.)



Landscaped multi-purpose seating, Syracuse, NY

Credit: Google Street View, Capture July 2017

6.3.1 “Central Park” & Existing Open Space

Within the Village, private and informal open spaces exist that should be maintained as open space or enhanced with landscape and natural resource improvements as recommended in Objective 6. d. Examples of these spaces include the Short Clove overpass median area, the West and Maple triangle, Saint Peter's and Mount Repose Cemeteries.

Recommendation 6.d.3: Begin dialogue with North Rockland School District regarding improvements to “Central Park”. In particular, that dialogue should include measures to achieve objective 6.d by planting passive recreational areas that double as productive habitats and ecosystems.

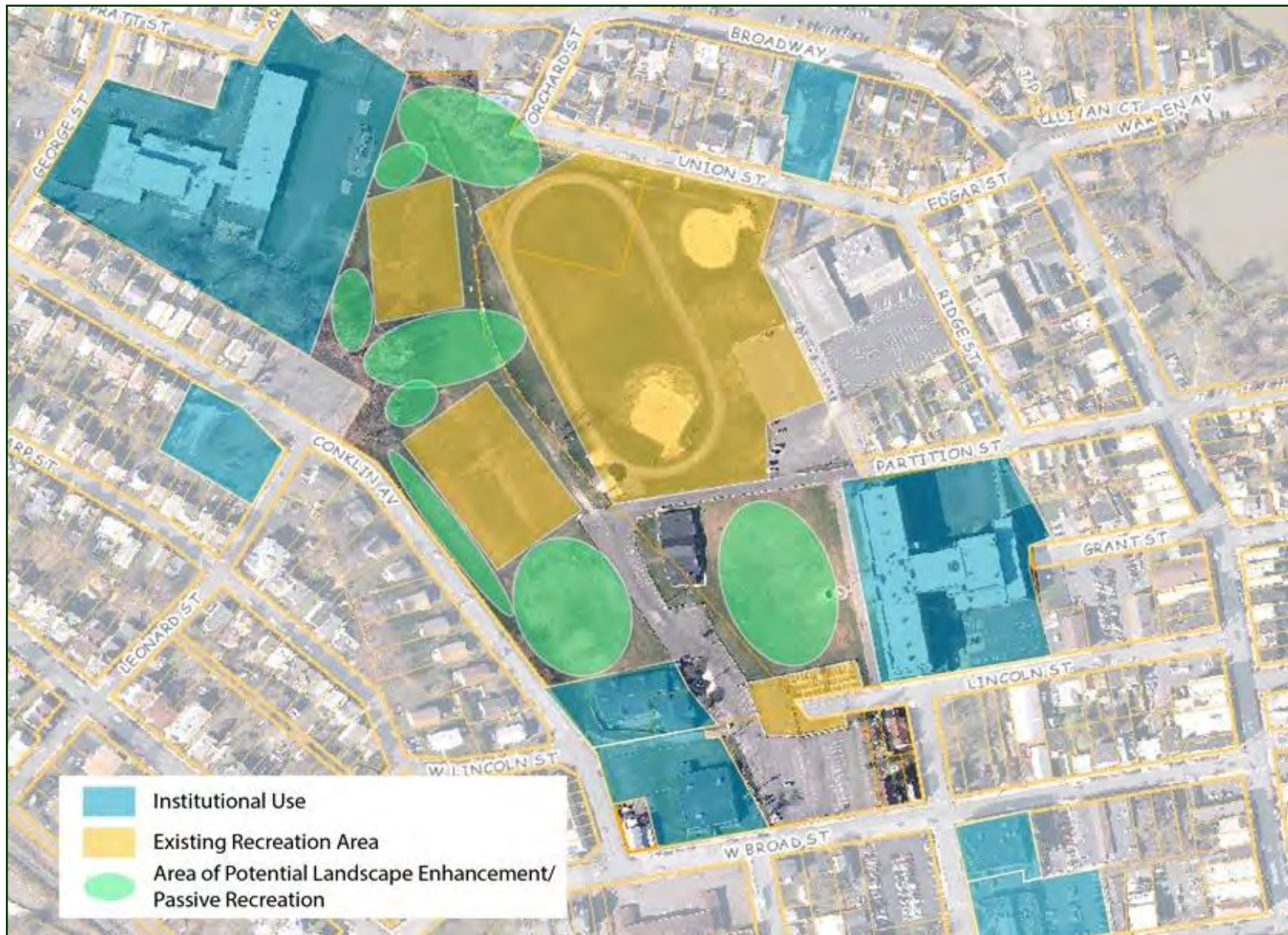


Figure 6-1: “Central Park” Opportunities for Passive Recreation

The recreation fields at the center of the Village referred to in this plan as "Central Park". Significant recommendations for Central Park are located in Chapter 11, Community Facilities, and a discussion regarding its importance to Village connectivity is located in Chapter 5, Transportation, Section 5.2.4 and Figure 5-4: Connections & Greenways

Currently the area is surrounded by civic uses - the Haverstraw Community Center; Haverstraw Elementary School; and the former Gerald F Neary Elementary School, now the Hilltop School, a BOCES institution. The schoolyards and recreational areas for these facilities are all incorporated within and around "Central Park," which includes paved basketball courts, a baseball field, a running track and soccer fields that are managed by local residents. A community garden is maintained at the southern border of the park between the Haverstraw Community Center and the Elementary School. This open space is known for poor drainage and is an integral meeting place for Village youth and active residents. Residents want to see the active recreational value of the existing fields improved and maintained, while many would like to see more of the area designed more for passive recreational use by using landscaping to delineate passive and active recreational space. Figure 6-1 provides a conceptual diagram to show where current active and potential passive recreation areas currently exist within "Central Park." This passive space could be improved with rain gardens to address reports that the field is often muddy and unusable, and with pollinator or permaculture gardens. Permaculture gardens produce food and create habitat for native insects and animals and require minimal upkeep. Gardens such as this could be a useful teaching tool to the many institutions proximate to Central Park, particularly as an educational tool for Haverstraw Elementary students, and as a space for students and residents to enjoy some quiet time while remaining close to school, church and after school programs.

6.4 EDUCATION & STEWARDSHIP

Objective 6.e: Complement access improvements with educational programming and informational signage.

Many goals and objectives contained within the Comprehensive Plan emphasize improving access to natural resources including access to High Tor, Haverstraw Beach State Park and the Haverstraw riverfront (Chapter 5, Transportation and Chapter 11, Community Services and Facilities). While access is an important step to encourage residents to enjoy the natural resources at their front door, educating the public will be important to ensure that these newly accessible resources are respected and stewarded. The following sections describe areas within the Village that would benefit from improved access and educational programming.

6.4.1 Emeline Park, HHQP & Bowline Town Park

Recommendation 6.e.1: Encourage the creation of a unique environmental education facility that could promote environmental stewardship within the Village and facilitate classes and programs centered around the enhancement of the Hudson River Significant Coastal Fish & Wildlife Habitat

The HHQP trail is a project currently being implemented within the Village which will follow the shoreline from Emeline Park around Bowline Pond almost completely to Bowline Town Park, and which is also discussed in Chapter 5, Transportation and Chapter 11, Community Facilities. The interplay between the land and shore in this low-lying area along the HHQP, Bowline Town Park and Emeline Park provides a valuable opportunity to improve access to the River for recreation and education, utilize community volunteer or education programs to steward and enhance the riparian ecosystem and incorporate living shoreline techniques and projects, and incorporate water-dependent and enhanced uses in the surrounding areas.



Swale, like the Science Barge, uses a barge as an educational facility.
Credit: NPV, August 2016

Residents have noted that Bowline Pond would be a particularly safe place to teach kayaking/canoeing and facilitate similar water-dependent recreation, and an ideal place to locate an environmental education center. Such a facility for environmental education, stewardship programs and kayak or canoe rental could be strategically located adjacent to the Manny Lopez Ballfields on McKenzie or Warren Avenues, or even in Bowline Pond itself, mimicking examples set by the Groundwork Hudson Valley Science Barge, Hudson River Sloop Clearwater and Swale Floating Food Forest. Each of these examples is managed and programmed by a not-for-profit organization that organizes school field trips, stewardship activities such as plantings and cleanups, and adult education events including evening talks and movie screenings.

The incorporation of an environmental stewardship club or environmental education center could help to improve the existing ecosystems within the Village and expand the health and functionality of those systems. For example, riparian edges and existing wetlands could be replanted, enhanced and maintained by these organizations in order to provide habitat for fisheries, mitigate flood impacts and the impacts of erosion due to stormwater flow as well as absorb pollutants from stormwater before they enter the Hudson River.

Recommendation 6.e.2: Incorporate multi-lingual educational signage or interactive exhibits at riverfront parks and the trailheads to state parks.

As discussed in section 6.2, sub-aquatic vegetation is well documented along Emeline Park and Bowline Pond, where it provides a nursery habitat and refuge for the flora and fauna that define the Haverstraw Bay Significant Coastal Fish & Wildlife Habitat.

In conjunction with objectives for a public multi-purpose pier at Emeline Park (Chapter 11, Community Facilities), and improved access to High Tor State Park (Chapter 5, Transportation), this plan recommends that educational signage and exhibits be incorporated.

A multi-purpose pier at Emeline Park might include signs in English and Spanish related to the ecology of Haverstraw Bay, fish species, and how much of which species are safe to eat. While the Hudson River is a significant natural community, it has also been impacted by human development and industry. The impacts of the dumping of PCBs in the upper reaches of the River and its subsequent designation as a superfund site continue to plague the River's biology. In addition to historical contaminants, pollutants from stormwater runoff, MS4 and combined sewer overflow discharge can impact when it's safe to use the river for recreation and how often it is safe to eat the fish.

6.4.2 High Tor & Haverstraw Beach State Parks

Recommendation 6.e.3: Work with the New York State Parks Department and the Palisades Interstate Parks Commission to connect and educate residents to protect important natural resources such as the Rocky Summit Grassland located on High Tor Mountain.

High Tor State Park is a significant visual, natural and recreational resource for the residents of Haverstraw. While the park almost entirely forms the western border of the Village, the formal parking entrance for High Tor State Park is located in Clarkstown, up and over the ridgeline from the Village, limiting access for residents who may not have a car. Chapter 5, Transportation, discusses how access might be achieved within walking distance of the Village of Haverstraw.

High Tor State Park contains a rocky summit grassland Natural Heritage Community and is itself part of the Palisades NYS DEC Lower Hudson River Significant Biodiversity Area. Rocky summit grasslands are vulnerable in New York State due to their relative rarity. The New York Heritage Program notes that threats to this natural community come from cell and radio towers, but most notably, sites with scenic views are threatened by misuse from recreational visitors such as trampling by hikers, graffiti, inappropriate fire starting and mountain bikers. The NYHP recommends protecting these resources by minimizing high-impact activities and encouraging users to remain on-trail.¹⁴

High Tor State Park is also part of the Palisades Significant Biodiversity Area. According to the Fish and Wildlife Service, the Palisades include regionally rare talus slope and traprock communities and is important for migratory and resident raptors and songbirds. Each fall, neighboring Hook Mountain hosts a hawk watch, which counts about 25,000 individual hawks, as well as other land birds and waterfowl, and constitutes the largest fall counts of any hawk watch in New York State.¹⁵

In High Tor, the ridgeline trail, part of the Long Trail, provides panoramic views of the Village of Haverstraw and the Hudson River below, and is located near a rocky summit grassland community. While this plan recommends improving access to High Tor State Park, it is of utmost importance that the Village work with the NYS Parks Department to ensure adequate trail signage is posted.

While trails on High Tor provide views of the Village and the River, residents indicate that they wish they didn't have to drive all the way to Clarkstown to access this natural and recreational resource which so defines the Village. Connecting residents to this resource within the Village is also important to encourage a reduction of greenhouse gases caused by vehicular traffic when accessing local parks.

Similarly, Haverstraw Beach State Park faces access issues as well, discussed in Chapter 5, and is located within the Palisades Significant Biodiversity Area and adjacent to the Hudson River Significant Biodiversity Area.

While improved access to High Tor and Haverstraw Beach is important to allow residents access to these important natural resources so connected to the Village's identity, it is important to educate new visitors on responsible enjoyment of these unique habitats. Signage in English and Spanish explaining "leave no trace" ethics and the importance of hiking on marked paths should be incorporated at trailheads. The Village has requested funding through the Hudson River Greenway Conservancy to incorporate wayfinding throughout the Village. The Village should continue to pursue funding to ensure wayfinding includes access to local open space resources. In addition, the Village should work with High Tor State Park to facilitate guided hikes or walks geared toward Haverstraw Village residents where a park ranger can provide educational background on the unique resources within the park.

¹ New York State Department of Environmental Conservation (NYS DEC). *Hudson River Estuary Wildlife and Habitat Conservation Framework*. 2006. https://www.dec.ny.gov/docs/remediation_hudson_pdf/hrebcf.pdf. Accessed September 10, 2019.

² NYS DEC. *Tell Me More About Significant Natural Communities*. <http://www.dec.ny.gov/gis/erm/naturalHeritageCommunities.html>. Accessed September 10, 2019.

³ United States Geographic Survey (USGS). *Hudson River Salt-Front Data*. Maximum Daily Location of Salt Front in Hudson River 1992-2012. https://ny.water.usgs.gov/projects/dialer_plots/saltfront.html. Accessed September 11, 2019.

⁴ NYS Department of State. *Coastal Fish and Wildlife Rating Form: Haverstraw Bay*. August 2012. https://www.dos.ny.gov/opd/programs/consistency/Habitats/HudsonRiver/Haverstraw_Bay_FINAL.pdf. Accessed October 2019.

⁵ Ibid.

⁶ Ibid.

⁷ Scenic Hudson. *Revitalizing Hudson Riverfronts: Illustrated Conservation & Development Strategies for Creating Healthy, Prosperous Communities*. 2010. Poughkeepsie, NY. P 19-20.

⁸ NYS DEC. *Creating a Natural Resource Inventory*. <https://www.dec.ny.gov/lands/100925.html>. Accessed October 2019.

⁹ NYS Hudson River Estuary Program. *Hudson River Estuary Wildlife and Habitat Conservation Framework*.

https://www.dec.ny.gov/docs/remediation_hudson_pdf/hrebcf.pdf. Accessed October 2019.

¹⁰ National Oceanic and Atmospheric Administration (NOAA). *What is a Living Shoreline?* <https://oceanservice.noaa.gov/facts/living-shoreline.html>. Accessed September 11, 2019

¹¹ Ibid. Accessed July 2019.

¹² US EPA Enforcement and Compliance History Online. *DMR Facilities Search*. <https://echo.epa.gov/trends/loading-tool/water-pollution-search/results/view-facilities-dmr>. Accessed October 2019.

¹³ Riverkeeper. *Hudson River Power Plants: Permitted to Pollute*. <https://www.riverkeeper.org/campaigns/stop-polluters/power-plants/hudson-river-power-plants/>. Accessed October 2019. Riverkeeper. *Power Plant's Extreme Water Withdrawals Kill Staggering Numbers of Fish and Deplete Ecosystems*. Riverkeeper's Cooling Water Fact Sheet. April, 2011. <https://www.riverkeeper.org/wp-content/uploads/2011/04/Riverkeepers-Cooling-Water-Fact-Sheet-4-21-11.pdf>. Accessed October 2019.

¹⁴ New York Natural Heritage Program. *Rocky Summit Grassland Guide*. <https://guides.nynhp.org/rocky-summit-grassland/>. Accessed October 2019.

¹⁵ US Fish and Wildlife Service. *Significant Habitats and Habitat Complexes of the New York Bight Watershed: The Palisades Complex #22*. https://nctc.fws.gov/pubs5/web_link/text/pal_form.htm. Accessed October, 2019.



7 ECONOMIC DEVELOPMENT



7 ECONOMIC DEVELOPMENT

7.1 INTRODUCTION

7.2 REGIONAL ECONOMIC DEVELOPMENT STRATEGY

7.3 FERRY/TRAIN CONNECTIONS

7.4 SMALL BUSINESSES

7.5 WORKFORCE TRAINING

7.6 DOWNTOWN CHARACTER

7.7 PROMOTION

7.8 GREEN INDUSTRIES

The Village of Haverstraw desires to become a regional center for industry, culture and commerce. Throughout the United States, communities are unknowingly mandating traditional design practices that mimic Haverstraw's central business district, both in layout and architectural design. With appropriate policies, support and marketing, Haverstraw can once again become the "downtown" for North Rockland.

7 ECONOMIC DEVELOPMENT

7.1 INTRODUCTION

The Village of Haverstraw was once a regional center for brickmaking with thousands of employees living and working in the Village. Even after the decline of the Hudson Valley brickmaking industry, the Village maintained a number of large regional employers from curtain manufacturers, furniture makers, concrete pipe manufacturers, and plastics manufacturing. Today, these industries have also departed, leaving the Village with just a few large employers mostly related to public education. Nevertheless, Haverstraw has a strong entrepreneurial base, which along with modest rents within the Village's central business district has led to a number of high-quality businesses and restaurants locating within the Village.

It is the desire of the Village to continue to foster small business and innovation, while also seeking to attract large employers to the Village and re-establish the Village as an economic engine to the region, preferably in the green industry and hospitality/dining sectors.

7.2 REGIONAL ECONOMIC DEVELOPMENT STRATEGY

The Mid-Hudson Region Economic Development Council (REDC) adopted a Strategic Plan in 2011¹. That plan identified several goals and supporting strategies for advancing economic development in the Hudson Valley and promoting strategies to increase quality of life. A summary of key goals relevant to Haverstraw are:

- Investment in biotech, high-tech manufacturing, and information technology;
- Support of distribution, financial and professional services, food and beverage and health care clusters;

- Protect natural resources and agriculture and leverage them for tourism and quality of life incentives for retaining high-quality jobs;
- Invest in infrastructure and support Transit Oriented Development (TOD);
- Foster housing development as a means of creating construction jobs;
- Support revitalization of urban centers as economic engines;
- Enhance the region's talent pipeline through educational resources;
- Promote entrepreneurship, start-ups and small business;
- Foster green development;
- Make the region more attractive to young educated professionals to stop "brain drain;"
- Promote waterfront development in order to enhance tourism, recreation and trade;
- Support minority and women business enterprises;

The Mid-Hudson Region would subsequently refine its strategy into a "Live, Work, Play" three-pronged approach to economic development.² Live seeks to revitalize urban centers by accelerating placemaking and promoting environmental justice. Work seeks to promote mature and emerging industry clusters including life sciences, advanced manufacturing, information technology, distribution, financial and professional services, and film and television production. Play seeks to improve quality of life and strengthen tourism by promoting scenic beauty, agritourism, food and beverage industry, arts and culture, unique history, recreational assets and proximity to New York City.

The Village of Haverstraw is well-positioned to respond to and directly implement the Mid-Hudson REDC's strategy. The Village possesses brownfield sites that can be engaged in targeted industry clusters. The Village's successful annual "Flavors of Haverstraw" food crawl attracts more than 1,000 visitors annually to sample the Village's strong food

and beverage industry. The Village's urban downtown provides affordable spaces relative to the region to foster opportunities for entrepreneurship and start-up, and the market and business climate is especially receptive to minority-owned businesses. The Village has outstanding historic and scenic resources that can be leveraged to strengthen tourism, and the Ossining-Haverstraw Ferry provides the potential to draw visitors from New York City.

The recommendations contained in this section serve the following comprehensive plan goal:

Goal 5: Improve the diversity, marketability and profitability of downtown and other Village businesses.

As reported in Volume 2, the Village maintains 20 convenience stores/small groceries, 30 restaurants, 18 retail stores and 21 personal service establishments to serve the local market areas in its downtown. There are 22 offices, six automotive businesses, and 10 light industrial or warehouse establishments downtown as well.

Unlike many area communities, Haverstraw is not a bedroom community, with residents commuting long distances to work. A full 86% of residents work in Rockland County and of those, 10% work in the Village. Village residents are employed in a wide range of professions, with a fairly large concentration of educational services, health care and social assistance. Opportunities exist to tap into this broadly qualified local labor market to encourage more sustainable lifestyles, where residents are able to work closer to where they live.

Current key employers within the Village include Haverstraw Transit, the North Rockland Central School District, Rockland County BOCES, and Northern Riverview Healthcare Center. Beckerle Lumber maintains a railroad siding and is a reminder of the suitability of trackside parcels for industry and wholesaling. Lucas Candies has been making chocolate in its current location for more than 120 years,

demonstrating the potential benefits of a Haverstraw downtown location for family run retailers.

The following objectives are intended to encourage business and trade within the Village of Haverstraw:

7.3 FERRY/TRAIN CONNECTIONS

Objective 7.a: Leverage ferry/train connection to attract new visitors and economic opportunities

Recommendation 7.a.1: Encourage expanded hours for ferry operations including on weekends to support tourism and cross-river commerce.

The Village of Haverstraw offers access to the regional Palisades Interstate Park System via Haverstraw Beach to the south and High Tor State Park to the west with extensive hiking trails and bike paths. Additionally, the Village and its immediate environs present a number of destinations for weekend visitors from quality restaurants and breweries to parks, historic sites and architecture. With expanded ferry weekend service, the Village may become more available to New York City tourists looking for short weekend excursions. With expanded late-night service, the ferry may be more usable for cross-river weekday trips by residents of Ossining and its environs looking for evening entertainment. (See also Chapter 5, Transportation.)

7.4 SMALL BUSINESSES

Objective 7.b: Support and increase small business entrepreneurship and growth by developing new business ecosystems, supply chains, and by encouraging the "sharing economy."

Recommendation 7.b.1: Promote a sub-chamber or local merchants' association for businesses within the Village downtown.

The Greater Haverstraw Chamber of Commerce does an excellent job of advocating for and supporting businesses in the region, but some of the demands and concerns facing the Village downtown are unique. Additionally, many of the downtown businesses are owned by persons whose native language is not English and who may distrust larger organizations. By cultivating a smaller group of local merchants, the Village may better be able to communicate and react to the needs of its local businesses. Additionally, these businesses may be better suited to offer advice to peers, and this advice may be better received if offered by a local peer, rather than a larger more regional organization.

Recommendation 7.b.2: Open a local business incubator including possibly a restaurant incubator to lower the start-up cost for entrepreneurs.

Local rents are currently believed to be relatively low compared to the region, which has allowed an increased degree of local entrepreneurship. As the Village economy improves, this may change. The Village should consider establishing a retail and restaurant incubator somewhere within the downtown to reduce the price of start-up for local entrepreneurs. Leases should be for a limited term, and should require ongoing attendance at business or industry education classes by the lessee.

Recommendation 7.b.3: Consider establishing a commercial community kitchen as part of an incubator.

The Village has a number of fruit and ice cart vendors, and it is believed that there may be home-based businesses creating food products throughout the Village's residential areas. To foster entrepreneurship and as part of its incubator, the Village may wish to consider a community kitchen, where persons can rent use of the commercial kitchen equipment hourly to support carts, food trucks, and food delivery businesses.

Recommendation 7.b.4: Promote quarterly local swap meets among merchants and residents.

One person's trash is another's treasure. As successful businesses upgrade equipment and non-perishable items, they may be tempted to discard their old goods. A swap meet would allow for start-ups, local businesses and local residents to capitalize on these used goods.

Recommendation 7.b.5: Encourage reuse of equipment and furniture left by defunct businesses.

Landlords, especially those that are not local, may seek to clear spaces left by former tenants where new tenants may not be able to use those goods. The Village or a local merchant's group may wish to act as an agent that accepts and stores furniture and equipment abandoned by defunct businesses and auctions these goods to the local business community.

7.5 WORKFORCE TRAINING

Objective 7.c: Promote business training through State University of New York (SUNY)- Rockland satellite.

Recommendation 7.c.1: Promote the offering of business education classes at the local satellite.

SUNY–Rockland already offers degree programs in business and finance. The Village should encourage SUNY-Rockland to offer local merchants' evening and weekend courses designed to directly impact the success of local retail business.

Recommendation 7.c.2: Promote the offering of English as a Second Language courses at the local satellite.

Throughout the public outreach process for preparation of this comprehensive plan, the public has noted that many local businesses were not accessible to non-Spanish speakers. By providing English

language courses to local merchants, businesses could expand their customer base.

Recommendation 7.c.3: Partner with a local restaurant to offer satellite classes from the RCC Hospitality and Culinary Arts Center.

The Village of Haverstraw lobbied to be the home of SUNY-Rockland's Hospitality and Culinary Arts Center, which ultimately located in Nyack, NY. Nevertheless, Haverstraw has a strong inventory of restaurants and has seen a number of start-up restaurants, which could benefit from the classes offered through SUNY. The Village should seek a local restaurant that can offer its kitchen and facilities for satellite programs by SUNY. If the Village opens an incubator restaurant space or community kitchen, this space could alternatively be used for classes.

7.6 DOWNTOWN CHARACTER

Objective 7.d – Maintain the strong visual character of the Village's downtown, and improve corridor's commercial appearance to recognize Village design cues.

Recommendation 7.d.1: Place strong signage and architectural appearance constraints throughout the Village.

The Village has a strong local entrepreneurial base with which to fill its local commercial spaces. The Village should be careful not to bow to pressure by formula businesses to accept standard corporate signage and architecture that is not complementary to the Village's established character. (See also Chapter 8, Historic & Scenic Resources.)

Recommendation 7.d.2: Prohibit drive-through businesses except those with direct access to Route 9W.

Local businesses are designed to serve the local public, which in downtown Haverstraw are generally pedestrians. The Village should not bow to pressure by national chains to accept drive-through facilities that would impede pedestrian flow, except on Route 9W, and

subject to best design practices that still allows for safe pedestrian and bicycle circulation as alternatives to motor vehicle use. (See Chapter 5, Transportation, Section 5.2.9, Route 9W Corridor.)



Custom Designed National Chain in Saratoga Springs, NY

Credit: SD Atelier Architecture, LLC, 2017

7.7 PROMOTION

Objective 7.e: Assist downtown businesses to better promote their businesses to a wider market

Recommendation 7.e.1: Allow businesses the opportunity to advertise and offer discounts as part of the Village newsletter.

Periodicals mailed by the Village should allow for sponsorship and advertisement by local businesses. In addition to marketing, this and website or other digital promotions may help defray the cost of publication.

Recommendation 7.e.2: Continue to promote and expand upon the number of regional festival days of both Latin-American and broader appeal.

The Flavors of Haverstraw festival was found to draw patrons from all over the region, with visitors originating from throughout the Hudson Valley and northern New Jersey. The Village should build on its current calendar of festival and fair dates, to continue to bring new visitors to the downtown.

Recommendation 7.e.3: Improve downtown business signage at the corner of New Main Street and Route 9W.



Current Downtown Directory Sign [Replace Picture with Current]

Credit: Nelson, Pope & Voorhis, LLC, 2019

The directory sign at New Main Street and Route 9W is somewhat cluttered, and may become out of date as downtown businesses close. This sign should be kept up-to-date and promote the types of businesses available in downtown, rather than naming individual businesses. The Village could explore alternative designs to draw attention to the downtown.

Recommendation 7.e.4: Establish kiosks at high-traffic areas such as the ferry landing and ballfields, providing advertising opportunities for downtown businesses and directories to visitors.

Hudson Link kiosks recently installed with bus shelters throughout Rockland County provide arrival time and route information to riders. Similar kiosks could provide information to Ferry riders and also advertise local businesses within easy walking distance of the ferry landing. Similar digital advertising could be provided at the Manny Lopez softball fields.

Recommendation 7.e.5: Encourage businesses to utilize simpler and more understandable signage.



Side by side example of how simpler signage can encourage business.

Credit: Jared Rodriguez, 2019.

Many businesses around the Village have taken a “more is more” approach to signage, advertising multiple services and goods through window signage, neon lights and signboards. This is counterproductive in that potential patrons may not notice the

particular service they are looking for among the clutter, and if they do, they may not be encouraged that the business is primarily engaged in that service. Simple signs that have the name of the establishment and the primary offering would appeal to a broader market.

7.8 GREEN INDUSTRIES

Objective 7.f: Attract one or more large employer to the Village to re-establish the Village as an economic engine to the region, preferably in the green industry sector.

Recommendation 7.f.1: Promote the use of Bowline Pond as a safe harbor for the loading and unloading of alternative energy infrastructure being transported on the Hudson.

Bowline Pond is already maintained as a navigable channel by the Bowline Generating Station which uses the pond to bring in equipment. Additionally, the former Hornick industrial site will be provided with a connection directly to Bowline Plant Road through the currently proposed DPW yard. By expanding this connection, and providing compensating area for DPW operations elsewhere, the site could be able to access the river as a transport resource for the shipping and storage of large wind power vanes and solar panels.

Recommendation 7.f.2: Provide land use incentives such as lot coverage, Floor Area Ratio (FAR) and height for green industry manufacturers and distributors.

In addition to the former Hornick site, other Village lots could support green industry and jobs. Beckerle lumber with its large yard and rail siding is uniquely suited to provide a local depot for solar energy and green building retrofit materials. High Tor Storage also enjoys a location along the CSX rail line, making it uniquely suited to industrial and warehousing use at greater intensity than self-storage.

¹ Mid-Hudson Region Economic Development Council. *Strategic Plan*. <https://regionalcouncils.ny.gov/sites/default/files/2017-11/MHREDCSPFINAL11_12_11.pdf>. Accessed October 17, 2019.

² Mid-Hudson Regional Economic Development Council. *Sparkling Innovation Igniting Change – Progress Report 2019*. <<https://regionalcouncils.ny.gov/sites/default/files/2019-10/2019MidHudsonProgressReport2.pdf>> Accessed October 17, 2019.



8

HISTORIC & SCENIC



8 HISTORIC & SCENIC RESOURCES

8.1 INTRODUCTION

8.2 HISTORIC RESOURCES

- 8.2.1 Historic Districts & Building Preservation
- 8.2.2 Education & Raising Awareness
- 8.2.3 Design of New Construction
- 8.2.4 Sustainability & Historic Preservation

8.3 SCENIC RESOURCES

The Village of Haverstraw is blessed with abundant historic and scenic assets. Its architectural heritage and natural setting, nestled between the widest part of the Hudson River and High Tor Mountain, have inspired artists, musicians and film directors. They continue to inspire its residents and visitors today. This chapter builds on these strengths and proposes a framework to inventory, recognize and preserve the Village's architecture and history, while also taking steps to preserve its wonderful views of the River and High Tor Mountain.

RESOURCES

8 HISTORIC & SCENIC RESOURCES

8.1 INTRODUCTION

The Village of Haverstraw contains impressive and important historic and scenic assets, from the King's Daughters Public Library to Central Presbyterian Church, and from the views of High Tor and South Mountain to the widest expanse of the Hudson River. Its history and scenery have inspired artists, musicians and film directors of the past, and continue to inspire its residents and visitors today.

These resources are inventoried in Volume 2, Chapter 6. Map 6a shows Historical Resources, and section 6.5 reviews Scenic Resources. This Comprehensive Plan provides a framework of goals, objectives and recommendations for preserving and enhancing these historic and scenic assets as described below.

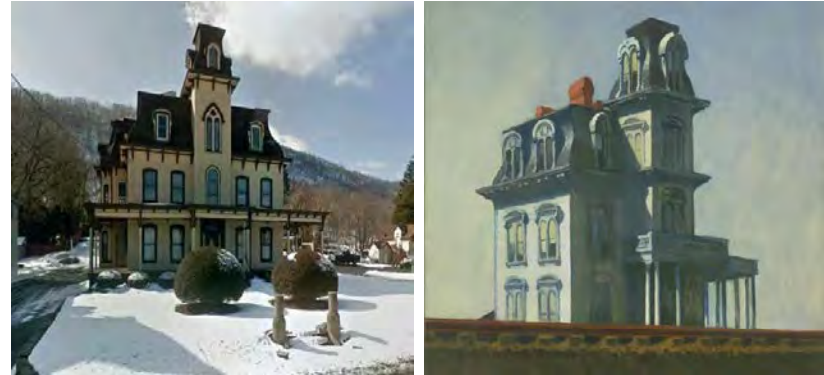
The Comprehensive Plan goals related to Historic and Scenic Resources are listed below:

Goal 1: Nurture and protect the Village's authenticity as a unique place that is a product of its history and people and that serves both the Village and the region.

Goal 2: Highlight the identity of the Hudson River to the Village of Haverstraw by enhancing scenic and physical connections to the river.

Goal 4: Promote the Village's many strengths and improve the perception of the Village to the region.

Goal 5: Improve the diversity, marketability and profitability of downtown and other Village businesses.



"The Hopper House" in Haverstraw and the "House by the Railroad" painting it inspired.

Credits: Google Street View; www.moma.org

8.2 HISTORIC RESOURCES

During the inventory and analysis phase, three buildings in the Village were identified that are listed on the National Register of Historic Places, the Homestead, the King's Daughters Public Library, and the U.S. Post Office of Haverstraw. However, the Village contains many more architectural treasures that tell its story and are yet to be identified and protected officially. The objective and recommendations to protect, enhance, and preserve the settings for these structures appear below.

8.2.1 Historic Districts and Building Preservation

Objective 8.a: Preserve and leverage the historic character, assets and resources of the Village.

Recommendation 8.a.1: Protect the Village's architectural character and resources by the establishment of State Designated Historic Districts, for those two districts already deemed eligible.

The State of New York maintains information on buildings and districts it has identified as historic, or as potentially eligible to be so designated. The State has identified an eligible historic district at the

heart of the Village. It is an L-shaped district that includes the Main Street Corridor, from Broadway to Third Street, and the Broadway Corridor, from Main Street to Grant Street. This district is outlined in purple on Figure 8-1, Potential Historic Buildings & Districts. The Village should pursue designation of this area as a State Historic District.

The State of New York has identified a second eligible historic district on the west side of Hudson Avenue from Fairmont Avenue to New Main Street, with large, stately Victorian homes. The Village also should pursue designation of this area as a State Historic District.

Recommendation 8.a.2: Protect the Village's architectural character and resources by the establishment of Locally Designated Historic Districts.

The Comprehensive Plan Committee looked beyond the eligible districts recommended by the State, and then outlined a series of adjacent areas rich with historic structures.

While not necessarily meeting the State's criteria for Historic Districts, these areas are recommended to receive designation as Local Historic Districts after further study. Proposed areas for potential locally designated historic districts are shown on Figure 8-1, Potential Historic Buildings & Districts. The purple boundaries of these areas should be considered as generalized boundaries, which may be shifted through investigation of the historic structures and their neighborhood setting.

The largest area recommended for local designation surrounds the Hudson Avenue corridor from Tor Avenue in the south to Westside Avenue on the north. It also includes a corridor along Clove Avenue between Tor Avenue and Main Street; as well as Sharp Street, between West Lincoln and Westside Avenue. An eastward extension of this district would include the West Broad Street and New Main Street corridors, between Clove Avenue and Broadway.



Eligible State Designated Historic District: Downtown Haverstraw around the Broadway/Main Street intersection.

Credit: NPV, 2015



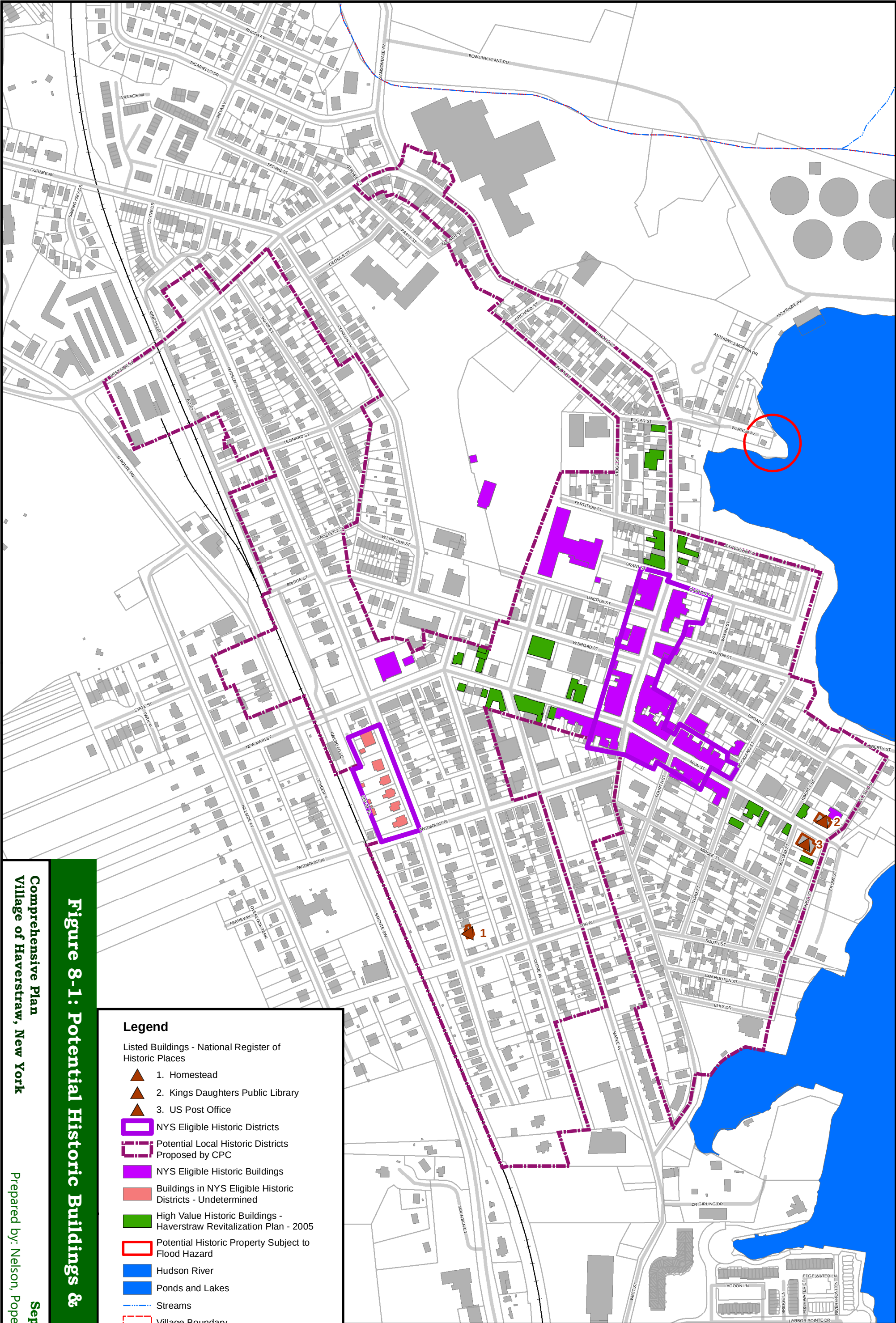


Figure 8-1: Potential Historic Buildings & Districts

Legend

- Listed Buildings - National Register of Historic Places
 - 1. Homestead
 - 2. Kings Daughters Public Library
 - 3. US Post Office
- NYS Eligible Historic Districts
- Potential Local Historic Districts Proposed by CPC
- NYS Eligible Historic Buildings
- Buildings in NYS Eligible Historic Districts - Undetermined
- High Value Historic Buildings - Haverstraw Revitalization Plan - 2005
- Potential Historic Property Subject to Flood Hazard
- Hudson River
- Ponds and Lakes
- Streams
- Village Boundary
- Tax Parcels
- Buildings
- Streets
- Railroad



1 inch = 400 feet

Source: ESRI Web Mapping Service;
Rockland County GIS; NYS GIS, NYS CRIS
September 13, 2019



*Eligible State Designated Historic District: Hudson Avenue
(114 Hudson Ave., decorated for Christmas, pictured above.)*

Credit: NPV, 2019

Another area proposed for local historic district designation in the riverfront area along First Street and Alison Avenue from the Elks Club to Broad Street, with westward extensions along Main Street and Broad Street to join with the center of the Village's downtown. It would also include the Jefferson Street/Clinton Street/Division Street neighborhoods, between Broadway and the Hudson River.

A third area proposed for local historic district designation includes the Broadway corridor north of downtown, from Edgar Street on the south up to Pratt Street and Samsondale Avenue on the north, near the Blue Beverage site.

The Village may delineate a group of properties within the Village as an historic district if a majority of properties contain buildings or sites that meet one or more of the State criteria for designation as a landmark, and which may have within its boundaries other properties or structures that, while not of such historic and/or architectural significance to be designated as landmarks, nevertheless contribute to the overall visual characteristics of the landmarks located within the historic district.

Recommendation 8.a.3: Inventory historic buildings, and create standards to be used for reviewing projects in proposed Historic Districts by a Historic Preservation Committee.



The Haverstraw Elks Club

Credit: NPV, 2019



*3 Allison Street
Credit: NPV, 2019*

A growing number of municipalities in New York, as well as the nation, are seeking to protect their heritage through the preservation of historic buildings, places and districts. The first municipal historic district preservation law in New York State was enacted in 1962 by the City of Schenectady to protect the Stockade Historic District. Since its enactment, the State of New York has seen over 175 municipalities enact local historic preservation laws or ordinances.¹ A successful and legally defensible local preservation program begins with a detailed inventory and analysis of a municipality's historic resources.

Recommendation 8.a.4: Pursue Certified Local Government status and consider adoption of a Local Landmarks Program.

The New York State Legislature has provided cities, towns, villages and counties with specific methods of regulating and preserving historic resources through the enactment of the State Historic Preservation Act, historic landmarks legislation, and the Certified Local Government Program. Furthermore, the courts have recognized that broad powers

granted to municipalities to regulate land use (typically through zoning enabling statutes) also provide authority for municipal regulation and preservation of historic and aesthetic resources. The Village should adopt local laws to participate in these programs. See <https://parks.ny.gov/shpo/certified-local-governments/>

Recommendation 8.a.5: Preserve buildings that are relevant to the aesthetic identity of Haverstraw and are necessary to connect the Village to regional and local history narratives, by adopting the New York State Model Landmarks Preservation Law. Discourage demolition of historic buildings and promote adaptive re-use.



*St. Peter's Church, Broadway North area
Credit: NPV, 2019*

Once historic districts are established, designation of landmark buildings and standards for their preservation and prevention of alterations damaging to their integrity must be established. The State of New York provides municipalities with a Model Landmarks Preservation law for this purpose². This model includes provisions to regulate alterations, demolition, and removal or relocation of designated landmark buildings. Demolition is permitted only if a series of specific criteria can be met.

The law provides for the establishment of a Historic Preservation Commission. The Commission may designate an individual property as an individual landmark if:

- It exemplifies or possesses special character, or historic or aesthetic interest or value as part of the political, economic, or social history of the Village; or
- The property is identified with persons or events significant in local, state, or national history; or
- It embodies the distinguishing characteristics of a type, period or method of construction or design style, or is a valuable example of the use of indigenous materials or craftsmanship; or
- It is representative of the work of a famous designer, architect or builder; or
- It represents an established and familiar visual feature of the community by virtue of its unique location or singular physical characteristic, represents an established and familiar visual feature of the community; or
- It has yielded or may be likely to yield information important in prehistory or history.

Under the model law, such a property may not be altered or demolished unless the applicant can prove an extraordinary economic hardship, through a stringent process. Violation of such a local law would be deemed an offense punishable by fines and/or requirements to restore the property to its historic condition.

8.2.2 Education and Raising Awareness

Objective 8.b: Continue the revitalization of downtown by building on the new streetscapes and façade renovations, provide public education on the value of historic resources, and promote good architectural design.

Recommendation 8.b.1: Identify specific areas to extend the successful streetscape work northward toward the Blue Beverage site; southward toward the Ferry Landing; and eastward toward the riverfront and Elks Club area.

The Village should continue the popular program of improving streetscapes and promoting façade renovations beyond the immediate downtown area. The New York Main Street Program provides grants and technical assistance for these activities. See <https://hcr.ny.gov/new-york-main-street>.



The Malley brickyard in 1912 along the Haverstraw shoreline. A mixture of races and nationalities of hard-working men can be seen.

Credit: Haverstraw Brick Museum

Recommendation 8.b.2: Pursue recognition through a local historical marker program, and/or expansion of the State and County historical markers

Map 6A *Historic Resources*, found in Volume 2 Inventory and Analysis, shows the locations of State Historical Markers. This program, administered by the New York State Museum, erects and maintains signs with historical information throughout the State. Once a Historic Preservation Committee is established, it should work with State and County officials to enhance or add markers in the Village, and to establish locally administered signage programs to identify historic streets, sites and/or structures.

Recommendation 8.b.3: Feature the history of Haverstraw in promotional materials such as printed and online walking guides and an expanded Village website presence. Better inform residents and visitors of the Village's various historical resources.

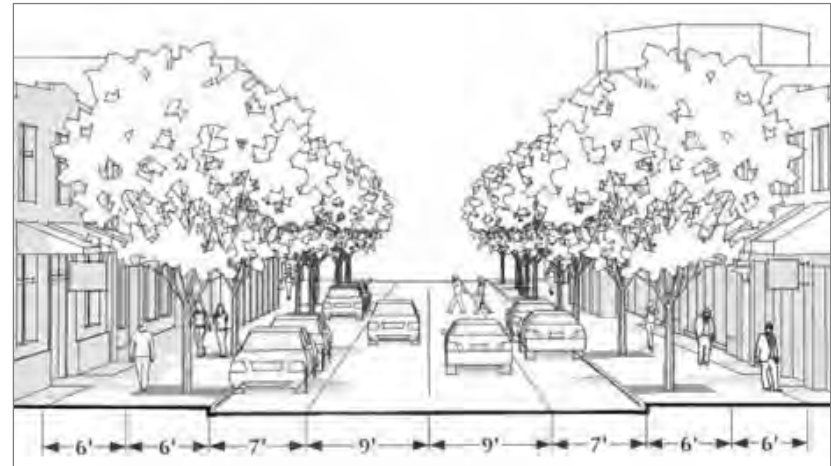
The Village Website briefly touches upon the rich history of Haverstraw in the "About the Village" page." The material from this comprehensive plan inventory of Historic Resources (Volume 2) should be incorporated into an expanded web presence promoting the Village's history. Walking guides and signage should be developed to enhance visitor and resident experiences as they travel through the Village.

Recommendation 8.b.4: Partner with other historic Hudson River towns. Team with the "TravelStorys" App.

The Village of Haverstraw has a story to tell. TravelStorys is a free app that uses your location to share authentic stories by locally sourced audio guides. The Village should work with TravelStorys to get a walking guide with historical stories onto this app, for distribution to encourage technically savvy visitors to tour Haverstraw. (See <https://www.travelstorys.com/>.)

8.2.3 Design of New Construction

Recommendation 8.b.5: Consider regulation of design through form-based codes or design guidelines for infill development or retrofits of existing buildings. Ensure that new development positively impacts Haverstraw with requirements for conformance with existing architectural vernacular and fine-grained, human-scale urbanism.



Schematic cross-section of a mixed-use street from the Sarasota County, Florida Form-Based Code.

Credit: <http://plannersweb.com/2014/12/fbc3/>

A form-based code is a land development regulation that fosters predictable built results and a high-quality public realm by using physical form (rather than separation of uses) as the organizing principle for the code. A form-based code is a regulation, not a mere guideline, adopted into city, town, or county law. A form-based code offers a powerful alternative to conventional zoning regulation.

Form-based codes address the relationship between building facades and the public realm, the form and mass of buildings in relation to one another, and the scale and types of streets and blocks. The regulations and standards in form-based codes are presented in both words and clearly drawn diagrams and other visuals. They are keyed to a

regulating plan that designates the appropriate form and scale (and therefore, character) of development, rather than only distinctions in land-use types.

This approach contrasts with conventional zoning's focus on the micromanagement and segregation of land uses, and the control of development intensity through abstract and uncoordinated parameters (e.g., FAR, dwellings per acre, setbacks, parking ratios, traffic LOS), to the neglect of an integrated built form. Not to be confused with design guidelines or general statements of policy, form-based codes are regulatory, not advisory. They are drafted to implement a community plan. They try to achieve a community vision based on time-tested forms of urbanism. Ultimately, a form-based code is a tool; the quality of development outcomes depends on the quality and objectives of the community plan that a code implements.³

The Village may consider implementing form-based codes throughout the entire Village or for just strategically selected sites or designated historic districts. See more detailed discussion and recommendations to implement form-based codes in Chapter 4.

8.2.4 Sustainability and Historic Preservation

Recommendation 8.b.6: Better inform Village Board members and staff about the benefits of building reuse versus new construction.

Reusing a historic building, rather than replacing it with a modern building, may be the “greenest” type of construction. Over a period of 75 years, buildings that are reused and retrofitted rather than demolished and rebuilt produce between 7% and 25% less carbon.⁴ This is due in large part to the fact that it requires 35 to 50 years for the carbon emissions invested in new construction to be recovered, even with extremely high-performing buildings.

Studies show that reused buildings are often inherently more energy efficient than most modern buildings⁵. A survey of New York City

buildings with over 50,000 square feet shows that overwhelmingly, older buildings outperformed newer ones, even without retrofits. In fact, on average, buildings constructed prior to 1920 consume only 80 BTUs per square foot, whereas those built after that year consume much more. There are several reasons for this, including passive heating and cooling designs built right into the structures, natural cross-ventilation, more efficient thermal envelopes, and physical closeness between buildings, which can provide an insulation benefit.

Recommendation 8.b.7: Provide incentives for developers to use recently published U.S. Green Building Council standards and guidance to use LEED certification for updates and retrofits of historic buildings.

Just because a building is categorized as historic, it does not mean that it cannot be made into an energy efficient and sustainable structure. The United States Green Building Council administers the LEED Certification Program (Leadership in Energy and Environmental Design). Recently certified LEED buildings include retrofits of very old structures, including the Fay House at Harvard (1807), the Pavilion IX at the University of Virginia (1821), and the New York State Executive Mansion, Albany (1856)⁶.

Recommendation 8.b.8: Encourage participation in the NYSEERDA RetrofitNY program.

RetrofitNY is working to create new solutions to renovate multifamily buildings while achieving or approaching net-zero energy use and creating standardized and scalable processes that will improve residents’ comfort and buildings’ energy performance. (<https://www.nyserda.ny.gov/AllPrograms/Programs/RetrofitNY>)

Specific steps include:

- Increasing insulation levels, especially in attics;
- Improving heating, cooling, and ventilation systems, and enhancing passive heating and cooling features;

- Applying sealants (caulking) to plug holes; and
- Making windows operable.

Recommendation 8.b.9: Increase the resilience of The Chapel of Our Lady of Montevergine, a historic structure identified as vulnerable to flooding hazards.

On Figure 8-1, Potential Historic Buildings & Districts, a red circle indicates the location of The Chapel of Our Lady of Montevergine (Maria Santissima Di Montevergine), at the end of Warren Avenue in the Little Italy neighborhood. This site has attracted thousands of pilgrims during a Labor Day weekend festival held since the 1920's. The Coastal Vulnerability Index report indicated that this site on the Bowline Pond is at high risk for surge flooding, with increasing risk from sea level rise over time. Fortunately, this is the only historic structure identified by the Comprehensive Plan Committee set along the low shoreline of the Village. All other historic structures are set high above the river shore. The Village should assist the owners in any efforts to make the Church structure more resilient to floods.



*The Chapel of Our Lady of Montevergine, Warren Avenue
Credit: NPV, 2019*

8.3 SCENIC RESOURCES

The locations of scenic resources described in this section may be found in Figure 8-2, Scenic Resources.

Objective 8.c: Protect and enhance the historic street grid and its view corridors both east/west and north/south to the River.



*Haverstraw is bookended by the Hudson River and the Palisades
Credit: Village of Haverstraw, 2017*

Recommendation 8.c.1: Pursue the removal of overhead utility wires and relocate them underground, as recommended in the Downtown Revitalization Study in 2005.

As can be seen in the photographs of historic buildings featured in this chapter, the foreground is often cluttered with overhead wires. As part of continued streetscape improvement efforts, the relocation of overhead locations underground should be pursued, to enhance the aesthetics of the village and provide more resilience against power and utility outages from high wind and snow events.

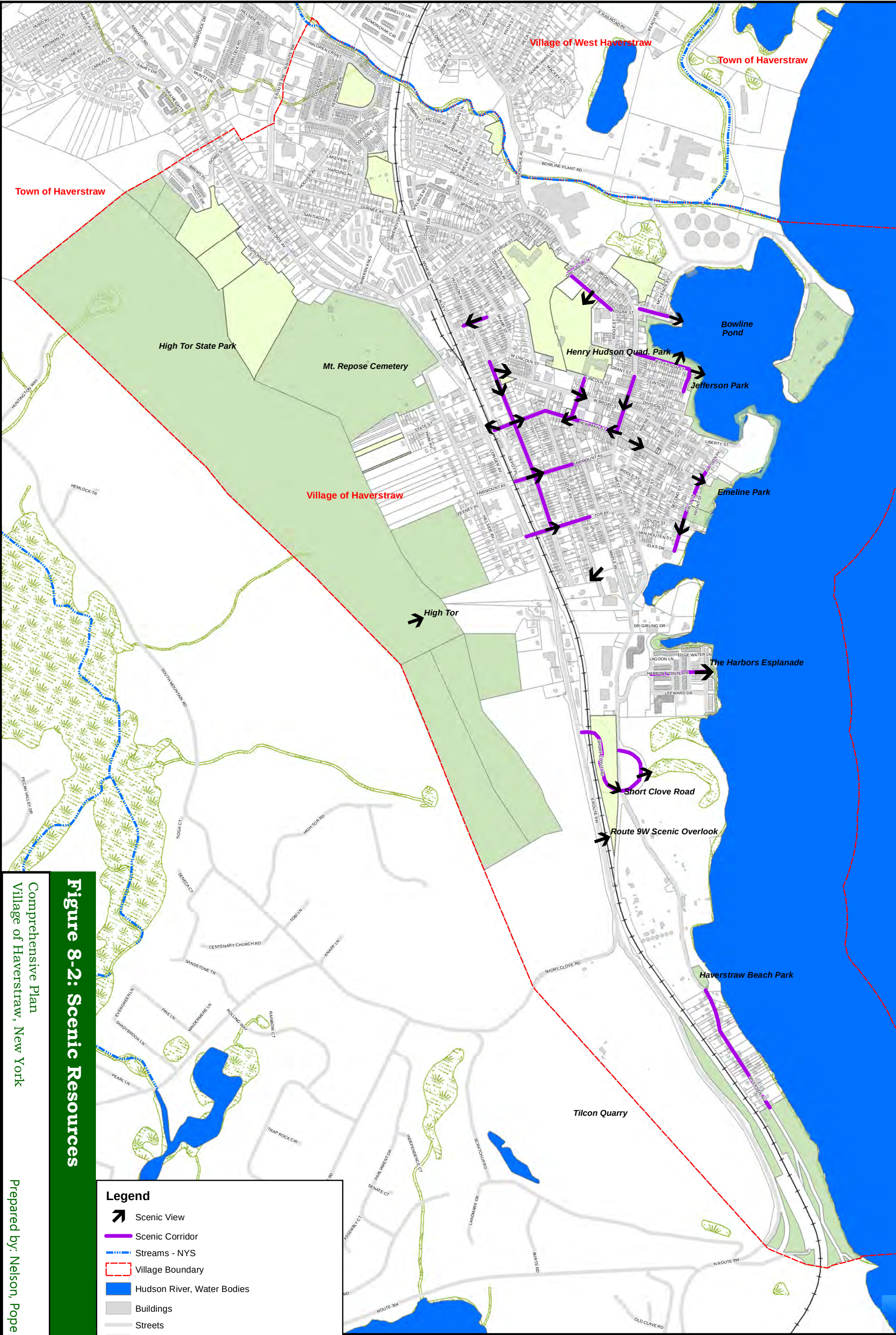


Figure 8-2: Scenic Resources
Comprehensive Plan
Village of Haverstraw, New York

March 2019
Prepared by: Nelson, Pope & Voorhis, LLC

Legend

- Scenic View
- Scenic Corridor
- Streams - NYS
- Village Boundary
- Hudson River, Water Bodies
- Buildings
- Streets
- Scenic Parks/Open Space
- Parks/Open Space
- Tax Parcels - Town of Haverstraw
- Wetlands - NWI
- Railroad



1 inch = 1,000 feet

Source: ESRI Web Mapping Service;
Rockland County GIS; NYS GIS
January 30, 2019



Aerial View of Chair Factory and Damiani Sites and Emeline Park, looking north.

Credit: <https://www.ideo.columbia.edu/edu/plus/Rockland/2019/VillageHaverstrawsm>

Recommendation 8.c.2: Improve the appearance of the Damiani site (Waterfront Development Site D) adjacent to Emeline Park.

The Damiani site is just north of Emeline Park, and currently is an unattractive, vacant, partially paved area, awaiting redevelopment. Until the site is developed the Village should consider some temporary, inexpensive measures such as plantings or signage, as well as periodic clean-ups, so that the Damiani site appears as an extension of the park land to the south, rather than as a vacant, former industrial site.

Objective 8.d: Maintain and improve views along Route 9W.

Recommendation 8.d.1: Work with the Tilcon Quarry and New York State Department of Environmental Conservation (NYS DEC) to encourage the owner to reduce the height of its “fines” piles

and to vegetate the north sides of the reduced piles in a reclamation action.

Recommendation 8.d.2: Establish design guidelines and specialized height and bulk standards to preserve views from the local roads, as well as from the Route 9W Scenic Overlook south of the Village downtown, and the panoramic view from the Short Clove Road ramp and its intersection with 9W.

As excavation operations are reduced in the coming years, the Village should work with Tilcon management and State officials to encourage the mine operator to begin restoring the north end of the facility as described in the objective. This would improve the view of the Village and the most prominent expanse of the Hudson, for travelers heading northbound on Route 9W.



North end of Tilcon Mine site, off Riverside Avenue, and The Harbors.

Credit: Google Earth 2019

Objective 8.e: Maintain and improve views of High Tor and from High Tor.

Recommendation 8.e.1: Establish design guidelines and specialized height and bulk standards to preserve view points identified in Volume 2, Chapter 6.5 of this Plan. These include key public views of the South Mountain/High Tor from within the Village, and views of the Village from the High Tor Scenic Overlook.

During public sessions, participants often stated that views to and from High Tor were some of the Village's most special features, and these views gave them pride in the natural beauty of the Village's setting. When establishing zoning and form-based codes according to the recommendations of Chapter 4, design standards should include provisions to preserve these important views.

Objective 8.f: Maintain and improve views of the Hudson River and the River Valley.

Recommendation 8.f.1: Incorporate design guidelines and standards in the establishment of form-based codes for the Village that preserve both visual and physical public access to the Hudson River.

Preservation of view access to the River should be considered in any proposed amendments to the zoning code as part of the "form-based" approach. When opportunities arise, both visual and physical public access to the River should be pursued and increased.

¹ *Legal Aspects of Municipal Historic Preservation*, New York State Department of State, latest reprint 2011.

² *Model Landmarks Preservation Local Law for New York State Municipalities*, July 2014. <https://parks.ny.gov/shpo/certified-local-governments/documents/ModelLawForLocalGovernments.pdf>

³ *"Form-Based Codes Defined,"* Form-Based Codes Institute, 2019, <https://formbasedcodes.org/definition/>

⁴ *"Why Retrofitting Historic Buildings is Well Worth It,"* by Annette Burgard, 2013, Sefaira, <https://sefaira.com/news/why-retrofitting-historic-buildings-is-well-worth-it/#>

⁵ *PlaNYC, New York City Local Law 84 Benchmarking Report* from August 2012

⁶ *"200 Years of LEED (or 20 Historic Buildings You Probably Didn't Know Were Green),"* by Christopher Davis, 2013, US Green Building Council, <https://www.usgbc.org/articles/200-years-leed-or-20-historic-buildings-you-probably-didn%E2%80%99t-know-were-green>



9 INFRASTRUCTURE &



9 INFRASTRUCTURE & UTILITIES

9.1 INTRODUCTION

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Existing utilities - including energy, water supply, sanitary and stormwater services - provided by the Village of Haverstraw for its residents and businesses are reportedly sufficient to meet their current needs.

However, the future impacts of climate change will require the Village to upgrade its infrastructure to incorporate state-of-the-art systems. This chapter discusses practices such as stormwater management, green infrastructure, energy conservation, green building practices and development of resilient shoreline infrastructure.

U T I L I T I E S

9 INFRASTRUCTURE & UTILITIES

9.1 INTRODUCTION

According to the Village of Haverstraw, it is currently not facing any significant challenges in providing energy, water supply, sanitary and stormwater sewerage services. Existing utilities, water and sewer infrastructure within the Village is largely adequate to support the Village. However, the sewer infrastructure experiences a significant amount of seepage through the pipes during storm events.¹

The Village should conduct a periodic internal review of maintenance procedures for all existing utilities and infrastructure to identify potential deficiencies. Additionally, all the utility service providers will have to consider conservation and protection measures as the Village is faced with more serious impacts of climate change. In order to adapt to climate change, while maintaining and preventing the existing infrastructure and utilities from overstraining the following goals and objectives are suggested:

Goal 9: Develop and maintain a stormwater management plan, encourage a stronger waterfront with softer shoreline structures, provide support for green infrastructure and alternative energy generation.

9.2 STORMWATER MANAGEMENT

Stormwater management is important as it can significantly reduce the runoff of rainwater (or melted snow) into the streets, which helps in the improvement of water quality. Impervious surfaces in developed areas prevent precipitation from soaking naturally into the ground, which adds pressure to the sewer systems. Excess runoff into storm drains and sewer systems can often cause system overflow, which can lead to flooding, erosion and turbidity.

The Village of Haverstraw is an MS4 – Municipal Separate Storm Sewer System. The stormwater runoff and sanitary sewage waste are piped separately. The Village has ten outfalls discharging into the existing waterways. The system often experiences seepage during storm events. Below are the objectives and recommendations for stormwater management.

Objective 9.a: Prepare a Stormwater Management Plan.

The village currently does not have a stormwater management plan (SMP). An SMP should document the strategy of the village to address stormwater related impacts. Implementation of the SMP will help in reducing the pollutants that reach the Hudson River by incorporating green infrastructure, groundwater recharge, reduced need of water treatment, reduced stormwater runoff and improved stormwater quality. (Also see Chapter 5, Transportation, Recommendation 5h.1 to perform a watershed assessment.)

Recommendation 9.a.1: Develop, implement and maintain a stormwater management plan.

The Village SMP should comprise the following elements:

- Public Education & Outreach, and public participation.
- Illicit discharge detection and elimination.
- Construction and post-construction site runoff control.
- Pollution prevention plan / good housekeeping for municipal operations.

Additionally, the Village SMP should have specific goals, including but not limited to the following:

- Develop and implement a stormwater infrastructure improvement plan.
- Prepare a drainage master plan, maintain an updated flood control and runoff program for the village.

- Install cleanouts at outfalls.
- Define standards for stormwater management.
- Reduce flood damage, including damage to life and property.
- Reduce soil erosion and minimize any increase in stormwater runoff from new development and construction projects.
- Maintain groundwater recharge and minimize pollutants in stormwater runoff.
- Prevent any increase in nonpoint pollution.
- Enhance sustainability by promoting, implementing and maintaining green infrastructure such as green roofs and stormwater detention
- Maintain the integrity of Minisceongo Creek for its biological functions, as well as for drainage purposes. The importance and need of restoring the creek were discussed as one of the highest priority items during the Sustainability and Climate Change Workshop.
- Protect transportation infrastructure. (Also see Chapter 5, Transportation.)

The Village SMP should outline specific stormwater design and performance standards for new development. Additionally, the plan should propose stormwater management controls to address impacts from existing development. Preventative and corrective maintenance strategies should be included in the plan to ensure long-term effectiveness of stormwater management facilities. The plan should also outline safety standards for stormwater infrastructure to be implemented to protect public safety.

The SMP plan should be reviewed annually and updated as necessary in order to take into consideration the latest technologies and information, as well as to account for progress made.

Recommendation 9.a.2: Educate residents and school students on natural stormwater management practices.

Involving the public during planning and implementation is important for the success of SMPs. Public participation can be encouraged with the following steps from the EPA's fact sheet.²

- Identify key users and groups
- Label catch basins
- Establish an advisory committee
- Create a stormwater utility website
- Prepare pamphlets and presentations
- Meet with key user groups and the media



Existing Stormwater Outfall at Admiral's Cove

Credit: EMWPC, December 2018



Debris and Siltation at Fowler's Gap Outfall

Credit: EMWPC, December 2018

Objective 9.b: Create a greener community.

The Village should adopt policies and promote projects to work towards a sustainable and green community. To achieve success towards creating a green community, the Village will require public education and community partnerships. The Village should develop its own mix of programs, projects and services based on community needs, priorities and opportunities.

A strong partnership base would help to maximize stability, resilience and adaptability. The Village's efforts of working towards a greener community should include partnership between residents, local businesses, non-profit organizations, electric and gas utilities, village departments (waste, water, public works) and governmental agencies at county, state and federal levels.

9.2.1 Green Infrastructure

Urban stormwater is a significant source of water pollution and public health concerns. Incorporation of Green Infrastructure (GI) would help in managing rain where it falls, reducing runoff volume and the need to treat it through grey infrastructure. Sustainable and effective approaches coupled with Green Infrastructure elements would help in reducing the existing and emerging sources of pollutants entering the stormwater system and the Hudson River.

Additionally, decentralized and site-specific GI projects can provide a several additional benefits such as increasing property value, enhancing walkability of communities, reducing urban heat island effect and improving air quality to name a few. GI in conjunction with existing grey infrastructure is a cost effective and efficient tool of working towards a sustainable community.

Objective 9.c: Protect water quality, improve air quality and encourage sustainable practices.

Recommendation 9.c.1: Develop or use an existing Green Infrastructure Guide.

The Green Infrastructure Guide would provide the Village staff, VOH development community, and private property owners with a resource that promotes the implementation of a range of green infrastructure practices for addressing stormwater management.

The guide would help address stormwater challenges, with the following goals:

- Improve water quality in the Hudson River.
- Promote soft shoreline structures.
- Promote the protection of local water quality.
- Assess GI needs and goals within the Village and identify opportunities for community-wide planning.
- Provide a concise, visually accessible overview of the types of green infrastructure practices available as tools for the Village as well as private property owners and developers
- Review general design guidelines and considerations for green infrastructure practices.
- Educate residents and increase local familiarity with GI practices and their applications.
- Encourage and assist in the incorporation and implementation of GI practices.



Soft shoreline solutions

Credit: Naturally Resilient Communities, <http://nrcsolutions.org/living-shorelines/>

However, developing a Village specific guide may be both an expensive and a lengthy process; therefore, the Village could consider using an existing GI guide such as the Green Infrastructure practices of the New York State Stormwater Management Design Manual³.

Recommendation 9.c.2: Provide education, resources and outreach to the public regarding green infrastructure implementation and maintenance practices.

Implementing educational programs to introduce the residents, local businesses and students would help the village gain and broaden community knowledge and support. This would also help ensure success of green infrastructure programs in the long-term.

A variety of educational programming options can take advantage of the green infrastructure demonstration projects. Some examples are:

- Educational signage at the site(s).
- Integrating the demonstration project with local school curricula.
- Tours, lectures, or training workshops at the site(s).
- Hands-on volunteer opportunities for green infrastructure maintenance.
- A website with project profile and green infrastructure resources.
- Educational brochures for homeowners or businesses.
- Training workshops for residents, landscapers, and design professionals regarding how to install and maintain green infrastructure.
- Project profile in newsletter for residents.
- Outreach partnerships with local nurseries and landscapers
- Provide a concise, visually accessible overview of the types of green infrastructure practices available as tools for the Village as well as private property owners and developers
- Review general design guidelines and considerations for green infrastructure practices.
- Educate residents and increase local familiarity with GI practices and their applications.

Recommended: December 2019 – Adopted: July 2021

Recommendation 9.c.3: Provide support for individual and community bioretention projects.

During the Sustainability and Climate Change Workshop the community showed a great interest in bioretention projects. The bioretention systems are shallow vegetated depressions, including bio-infiltration areas, biofilters, rain gardens, green roofs and bioswales. These are easy to maintain and can be implemented at individual or community scale. These are very effective at removing pollutants and reducing stormwater runoff. These projects could be easily implemented in private gardens and or Village properties.



Schematic Sketch of Right of Way Bioswale

Credit: Bioswale Care Handbook; NYC Environmental Protection

During the Workshop, the participants showed a lot of interest and identified several public buildings and institutions including the Village Hall building that could be candidates of green roofs.

Recommendation 9.c.4: Programs / assistance for stormwater harvesting and reuse.

During the Workshop, community members were particularly interested in learning more about stormwater harvesting tools such as rain barrels and cisterns. Rain barrels are rooftop or yard catchment storage systems typically utilized in residential settings while cisterns are large-scale rain barrels used in commercial and industrial settings.

Workshop participants also suggested community rain barrels at public parks, gardens and school fields as a prospective GI feature.

Recommendation 9.c.5: Retrofit New Main Street with green infrastructure (GI) elements.

New Main Street was identified as a key candidate of incorporating GI elements such as curbside rain gardens, bioswales and tree planters. Incorporating GI elements on New Main Street would retrofit the street by enhancing its character as well as provide for stormwater management.



Urban Runoff Treatment Retrofit

Credit: Bay Area Stormwater Management Agencies Association

Recommendation 9.c.6: Develop incentive programs.

Both financial and development incentives for green infrastructure can be important tools to encourage the residents and businesses to adapt Green Infrastructure practices. Some of the suggested incentives that the Village can develop:

- Subsidies, financing, grants, and rebates to offset the initial capital costs needed to install green infrastructure.
- Tax incentives that can help reduce costs to property owners over time.
- Development incentives such as expedited permitting, decreased fees, zoning upgrades, reduced stormwater requirements, and other benefits to property owners and developers who plan and implement the use of green infrastructure.

9.3 SANITARY & SEWAGE, WASTEWATER & SOLID WASTE MANAGEMENT

The Village lies entirely within the Haverstraw Joint Regional Sewer District service area, and all inhabited areas in the Village are served by sanitary sewers. Existing water and sewer infrastructure within the Village is largely adequate to support the Village. However, during the public workshops, the residents identified issues of littering and solid waste pickup along the commercial streets including New Main and Main Street.

Objective 9.d: Maintain and upgrade existing infrastructure and services to accommodate existing and future demands.

Recommendation 9.d.1: The Village should work with existing service providers including garbage collection companies to assess the existing need and required service modifications or upgrades.

The Village should ensure that existing utilities and infrastructure will adequately serve the needs of residents and businesses to accommodate future growth.

- Define standards for wastewater and solid waste management.
- Conduct periodic inspections to identify and prioritize existing system improvements and upgrades.
- Maintain and annually update a village-wide capital improvement program to upgrade aging infrastructure.
- Implement impact fee program for new developments to assist in funding of future growth.
- Upgrade water meters and delivery lines, as needed.
- Improve telecommunications infrastructure, as needed.
- Provide infrastructure in the most efficient and equitable manner consistent with sound environmental and growth management policies.
- Develop a replacement program for deteriorating and aged utility lines.

9.4 ENERGY CONSERVATION & GREEN BUILDING PRACTICES

According to the Village of Haverstraw, it is not facing any challenges with energy supply at present; however, reducing energy usage by using alternative energy and adapting green building practices can reduce energy consumption significantly. Buildings have a substantial impact upon energy use, both in terms of the building envelope as well as building systems.

Objective 9.e: Reduce energy usage by promoting alternative energy use and green building practices.

Some of the strategies that the Village should follow to reduce energy usage include:

- Undertake initiatives to reduce energy consumption.
- Define standards and service levels for energy.
- Investigate and encourage development of green technologies and a green building code.
- Promote alternative energy use – such as, community solar (Village-owned buildings).
- Implement impact fee program for new developments to assist in funding of future growth.

Recommendation 9.e.1: Refer to the New York State Climate Leadership and Community Protection Act (2019).

The new NYS Climate Leadership and Community Protection Act discusses climate change; renewable energy programs; labor and job standards, and worker protection. The act would help the Village advance and achieve use of renewable energy and energy conservation practices. The act identifies that extensive use of fossil fuels to generate electricity will need to be discontinued in favor of renewable sources. (See Chapter 3, Sustainability.)

The Village should coordinate with service providers to adopt measures to put the Village on a path for energy conservation, green building practices and reduction of greenhouse gas emissions.

Recommendation 9.e.2: Develop Energy Conservation Plan and Green Building Guidelines.

To promote energy conservation and the effective utilization of renewable energy sources, the Village should work towards an energy conservation plan which would systematically analyze the impact of the present and future use of energy in the municipality. It should include details and specific measures to reduce energy consumption. Additionally, the plan should identify and propose measures that the Village may take to reduce energy consumption and to promote the effective utilization of renewable energy sources.

The guidelines would help residents, Village staff and businesses identify ways of energy conservation, implementation of green construction and best practices. Additionally, the guidelines should also suggest potential funding opportunities and provide guidance for businesses and the community-at-large regarding green and sustainable design opportunities.

Recommendation 9.e.3: Encourage more energy-efficient buildings within the Village and the use of renewable energy sources.

The Village should work with residents and developers on improvements to building performance in municipal and private buildings. The following strategies are suggested to encourage more energy efficient buildings:

- Building standards and energy code compliance - Establish building codes and guidelines that can encourage Energy Star or LEED standards.
- Data - Improved data collection and reporting.
- Public awareness and education – Promote training for residents, developers and Village staff.
- Identify and implement financing strategies - Innovative financing mechanisms to support residential and commercial properties in incorporating energy-efficiency upgrades.

Recommendation 9.e.4: Promote district energy and microgrid systems.

During the Sustainability and Climate Change Workshop, the residents were introduced to the environmental and cost benefits of district energy systems. These systems can provide a loop in the ground of low-temperature condenser water piped among several buildings that could circulate water at 70 degrees F for the purpose of both heating and cooling the buildings. District energy systems such as geothermal could take waste heat from the Bowline power plant and use it to heat

public buildings. Public workshop participants considered this as a great opportunity.

The Village should work on developing and promoting a microgrid power distribution which can be separate from the utility. It would encourage the buildings to share energy generation and use. These can utilize community solar, co-generation and geothermal. With a microgrid system in place, the buildings would contribute to energy generation within the village along with the power plant.

The Village should create ordinances that make implementation easier for utility, municipal or third-party owned district energy systems.

9.5 SHORELINE INFRASTRUCTURE

The Village of Haverstraw has approximately 3.2 miles of continuous shoreline along the Hudson River. The shoreline consists of improved and unimproved sections, along with a number of docks and docking facilities. The need to strengthen the waterfront and upgrade the existing shoreline infrastructure was discussed in detail during the Waterfront Charrette.

Based on the experience of the Village during Superstorm Sandy, there is a strong need to protect the shoreline and upland structures from future flood events.

Objective 9.f: Encourage more resilient waterfront with softer shoreline stabilization structures.

9.5.1 Future Waterfront Development

All new developments should address the new Advisory Base Flood Elevations. This could be achieved in a variety of ways. For example, they might include raising the grade of the site and or elevating the buildings on piles and allowing the water to inundate the site. The

following recommendations are suggested for future waterfront development within the village:

Recommendation 9.f.1: Encourage all new shoreline improvements to follow Waterfront Edge Design Guidelines (WEDG) design standards.

WEDG employs an evidence-based approach, focusing on three key pillars of excellent waterfront design:⁴

- “Resilience: Reduce risks or be adaptable to the effects of sea level rise and increased coastal flooding, through setbacks, structural protection, and other integrative landscaping measures.
- Ecology: Protect existing aquatic habitats and use designs, materials, and shoreline configurations to improve the ecological function of the coastal zone and strive to be consistent with regional ecological goals.
- Access: Be equitable and informed by the community, enhancing public access, supporting a diversity of uses, from maritime, recreation, and commerce where appropriate, thereby maximizing the diversity of the harbor and waterfront.”

Recommendation 9.f.2: All new and replaced shoreline structures should consider “softer” edges instead of vertical bulkheads and seawalls.

Shoreline hardening often interrupts natural shoreline processes by reducing habitat for marine species, degrading water quality and increasing erosion processes. Hard shoreline protection such as bulkheads and seawalls are often the default methods selected by individual property owners and developers; however, these can be detrimental as they often increase erosion, result in scouring along the base, modify the gradual sloping profile of natural shoreline and restrict filtration of run-off.

Soft shoreline or living shoreline edges, including riprap, vegetated edges or a combination of both, offer the most environmentally friendly options of shoreline protection. Softer shoreline structures often cost less than hard shoreline protection structures such as bulkheads and seawalls. Softer shoreline structures often improve with time.

The Village should refer to DEC's Hudson River Sustainable Shoreline Projects. The project has developed science-based recommendations for shoreline management and demonstrated innovative shorelines and best management practices⁵.

Objective 9.g: Invest in shoreline infrastructure and activities that can maximize the visual appeal, sense of place and economic value of the Hudson River Waterfront

Recommendation 9.g.1: Create a walkable shoreline along the entire Village riverfront.



Riverwalk Park at Tarrytown

Credit: <https://www.scenichudson.org/parks/riverwalkparktarrytown>

The widest point of the Hudson River along the shoreline of the Village is an opportunity that the Village should utilize. In anticipation of cleaner water in the Hudson River, the Village should create opportunities for the public to get down to the level of the river and enjoy the scenic values of the river.

The Village should promote the development of a lively and pedestrian-friendly waterfront and provide for a continuous public greenway corridor along the river. (Also see Chapter 5, Transportation and Figure 5-3: Greenways & Open Spaces.) Additionally, a walkable shoreline would allow the Village to benefit from the proposed Admiral's Cove development and would create economic opportunities along the riverfront. The Village should refer to work and parks of Scenic Hudson including Tarrytown Riverwalk Park and Park at Peekskill Landing. Scenic Hudson has 43 Parks along the Hudson Valley⁶. The waterfront in Peekskill Landing has transformed into a vibrant park including shoreline boardwalk, docks, trails and other outdoor activities.



Scenic Hudson Park at Peekskill Landing

Credit: <https://www.scenichudson.org/explore-the-valley/scenic-hudson-parks/scenic-hudson-park-at-peekskill-landing/>

Participants during the public Waterfront Charrette stressed the need to create economic and recreational opportunities along the River, especially around the areas such as the ferry terminal and the HHQP development.

Recommendation 9.g.2: Integrate the Hudson River with local school curricula.

Integration of environmental education (primarily the historical and environmental significance of the Hudson River) would not only increase awareness, but would also involve youth in future planning and development of the waterfront. Several students participated in the public workshops and showed a great interest in future planning of the riverfront.

Programs such as exploring the Village waterfront, cleaning the waterfront, and organizing events including community services and recreational events along the riverfront could make students and residents more involved in the future planning and development of the riverfront.

9.5.2 Docks & Docking Facilities

The village has approximately 15 docks and docking facilities. (Please see details in Local Waterfront Revitalization Plan, Chapter 12, and refer to Map 33: Water-Dependent and Water-Enhanced Uses.) None of the existing docks and docking facilities have the capacity to allow opportunities for transient and larger recreational vessels including excursion boats and cruise vessels. The Village also lacks formal fishing and boat launching facilities.

Objective 9.h: Maintain and upgrade existing boating facilities and provide opportunities for docking of recreational vessels. (Also see Chapter 5, Transportation.)

Recommendation 9.h.1: Build a new multipurpose pier.

A new multipurpose pier at or near the location of the former Emeline Pier was discussed and supported by residents as well as committee members during the Waterfront Charrette. (See Chapter 5, Transportation and Chapter 11, Community Services and Facilities.) This new pier should be designed to accommodate:

- Excursion boats
- Ferries
- Cruise Vessels
- Historic Vessels
- ADA Fishing - Increased opportunities for fishing.



Newburgh Landing Pier Site Plan

Credit: EMWPC, 2015

Recommendation 9.h.2: Increase opportunities for transient recreational vessels.

Workshop participants emphasized the need to provide opportunities for transient recreational vessels along the Village shoreline. The Village should provide docking facilities for all recreational vessels including vessels greater than 26 feet in length. (See Chapter 5, Transportation.) Features of the proposed facilities should include:

- Mooring Buoys
- Transient slips
- Dinghy docks
- Restrooms
- Dockside utilities including electric service, water supply and pump outs.
- Recycling and trash receptacles etc.

Recommendation 9.h.3: Multipurpose community boathouse for rowing and paddling.

A boathouse would not only benefit rowers and residents by creating additional recreational opportunities, it would also promote tourism and create opportunities for learning the sport of rowing.

Recommendation 9.h.4: Canoe, paddleboard and kayak launch.

The Village has a great potential for becoming a popular spot for launching canoes, paddleboards and kayaks; however, the Village lacks a formal launch. For decades, river recreationalists have launched their canoes and kayaks from a makeshift launch near Emeline Park.

The Village should provide a centrally located public canoe and kayak launch facility. This facility would be very beneficial for the community and river recreationalists.

Recommendation 9.h.5: Explore opportunities for floating structures and communities of houseboats and or liveaboard marinas.

The Village should plan and consider floating structures which could accommodate a variety of uses including restaurants, housing and swimming.

Exploring opportunities for developing a floating home community in the Bowline Pond area would provide alternative housing options to the Village residents. Floating home communities can be extremely enjoyable and would utilize the scenic value of the Hudson River along the Village shoreline.

¹ Staff member at Joint Regional Sewerage Board, West Haverstraw.

² *Funding Stormwater Programs*, USEPA,
https://www3.epa.gov/npdes/pubs/region3_factsheet_funding.pdf

³ *New York State Stormwater Management Design Manual*, Jan 2015,
Chapter 5 Green Infrastructure, 116 pp.,
https://www.dec.ny.gov/docs/water_pdf/swdm2015chptr05.pdf

⁴ Waterfront Alliance. "About WEDG."

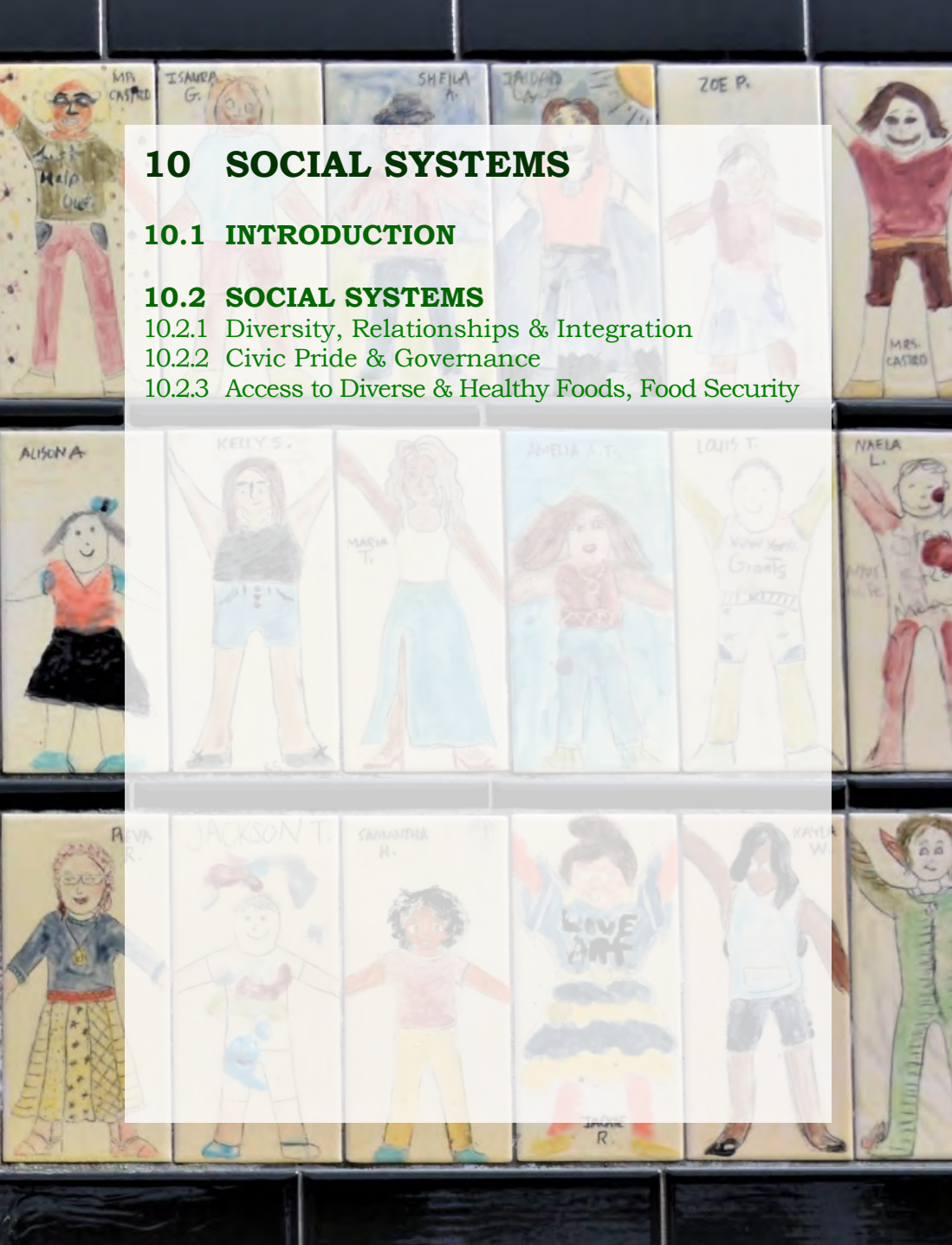
<http://wedg.waterfrontalliance.org/about/>. Accessed October 2019.

⁵ Hudson River Sustainable Shorelines,
<https://www.dec.ny.gov/lands/81956.html>

⁶ Scenic Hudson Parks, <https://www.scenichudson.org/explore-the-valley/our-parks/>



10 SOCIAL SYSTEMS



10 SOCIAL SYSTEMS

10.1 INTRODUCTION

10.2 SOCIAL SYSTEMS

10.2.1 Diversity, Relationships & Integration

10.2.2 Civic Pride & Governance

10.2.3 Access to Diverse & Healthy Foods, Food Security

The finest resource of the Village of Haverstraw is found in its diverse population and the civic pride of its residents. A unique variety of cultures is represented in the community - with many languages spoken and a tremendous variety of foods served – which makes the Village a vibrant place to live and to visit. Everyone participating in the Comprehensive Plan is eager to move forward according to its motto: Adelante!

10 SOCIAL SYSTEMS

10.1 INTRODUCTION

During the large number of public workshops and charrettes conducted for the Comprehensive Plan effort, the Committee heard that the finest resource of the Village of Haverstraw could be found in its diverse people, and the civic pride of its citizenry. Participants constantly reminded us of the unique variety of cultures represented in the community, the number of languages spoken, and the tremendous variety of foods served – all of which make the Village of Haverstraw a vibrant place to live and to visit. In many communities, the preparation of a Comprehensive Plan can be contentious. But in Haverstraw, our public participation sessions were full of productive and civil discourse, and lots of friendly banter. Everyone was eager to move forward, according to the Comprehensive Plan's motto: Adelante! It was noted at the first visioning workshop that it was obvious the Village has a very high level of community engagement, and all sessions had excellent attendance, even in the worst weather.

Most Comprehensive Plans do not have a chapter called "Social Systems." However, the Village of Haverstraw values its social systems so highly, that the Comprehensive Plan Committee has chosen to place these objectives into a separate chapter.



Public Meeting, Haverstraw Center, January 2019.

Credit: NPV

The Comprehensive Plan Goals related to Social Systems are listed below:

Goal 1: Nurture and protect the Village's authenticity as a unique place that is a product of its history and people and that serves both the Village and the region.

Goal 4: Promote the Village's many strengths and improve the perception of the Village to the region.

10.2 SOCIAL SYSTEMS

10.2.1 Diversity, Relationships and Integration

Objective 10.a: Protect the cultural, generational, economic, religious, ethnic, and racial diversity of residents and businesses.

Objective 10.b: Encourage socioeconomic integration of all neighborhoods.

Objective 10.c: Foster interaction and social cohesion between diverse groups.

Recommendation 10.a.1: Ensure that a variety of housing opportunities are available at all price and size levels to promote and preserve the economic diversity of residents.

Housing issues are covered in earlier chapters, particularly in Chapter 4. The recommendation here addresses the social issue we heard about at public sessions. Citizens of Haverstraw take great pride in its diversity of residents, both culturally and economically, and while economic development is prized and sought after, "gentrification" and loss of diversity is feared. All actions to create a mix of housing should be seen through this lens.

Recommendation 10.a.2: Encourage locally based shops and restaurants with a unique Haverstraw flavor, and if national or regional chain or “formula” businesses move in, encourage them to fit in to the neighborhood character.

In public sessions, residents prized the unique and distinctive character of the Village downtown with its smaller shops and ethnic foods, while also hoping for some larger, more traditional tenants to move in. Both sentiments should be considered as zoning changes for the downtown Village are considered.

Recommendation 10.b.1: Create on-street parking permit systems for residents in certain neighborhoods during evening hours, so they can feel like their needs are being balanced with the needs of businesses. (See Chapter 5, Transportation.)

Many downtown apartment units do not come with parking spaces provided, and the tenants who drive need to use on-street parking. In public sessions, downtown tenants asked that additional areas be opened for them to park during evening and overnight hours.

Recommendation 10.c.1: Encourage establishment of a Downtown Village Business Group, representing all business owners and operators, to serve as an umbrella organization for promotion and organization of downtown commerce.

At this time, the Village Board has noted that it is difficult to communicate with the Village’s downtown business operators, as there is no umbrella organization to represent them. Particularly to discuss the implementation of Historic Preservation efforts and the adoption of form-based codes, it would be extremely helpful if the Village Board and Planning Board could receive input from such an organized group.

10.2.2 Civic Pride and Governance

Objective 10.d: Promote communication and interaction between citizens groups and community organizations.

Objective 10.e: Improve Haverstraw public relations via direct actions that challenge misperceptions, and with new projects that ensure Haverstraw is positively represented in media and in the public consciousness.

Objective 10.f: Engage Haverstraw residents of all ages with a multilingual education initiative that informs residents of rules and Village policies regarding litter, property maintenance, trash collection, street noise ordinances, recycling, community gardens and programs and opportunities available through the Village or other governmental and quasi-governmental providers

Recommendation 10.d.1: Encourage and create space for life skills and cultural sharing programs such as adult language, art, music, dance and cooking classes that reach across cultural differences and promote social integration. Classes should be supported for residents with free or very low-cost tuition; provision of childcare would increase participation.

During public participation sessions, such classes were often suggested to heighten interactions between the diverse groups who live in the Village, and to integrate a variety of citizens into Village life.

Recommendation 10.d.2: Activate sidewalks and pocket parks to increase social interactions and create higher levels of use.

Haverstraw is fortunate to have areas with an active street life, and people often bring chairs to sit and congregate in public areas. However, certain pocket parks and public spaces are underutilized, and could be “activated.” The Village should experiment with changes in street furniture, establishment of new mobile vending sites, or other measures, to create a vibrant outdoor life.

Recommendation 10.e.1: Create more street fairs and outdoor arts events that bring out all resident groups to share in the civic life of the Village.

"Flavors of Haverstraw" is just one of many events that bring Villagers downtown to have a good time together. The Village Board and Village departments should encourage and support increasing the numbers of festivals and happenings throughout the year, so that something is always going on and there are events to look forward to.



Delightful meal at the "Flavors of Haverstraw Food Crawl"

Credit: <https://voh-ny.com/study-finds-that-green-spaces-make-kids-smarter/>, 2017

Recommendation 10.e.2: Create a welcoming entrance to the community, particularly at the Route 9W ramp/Short Clove Road gateway at the south end of the Village downtown. Improve the New Main Street entrance from 9W. (See Chapter 5, Transportation.)

It was identified that the 9W ramp area is a beautiful gateway to the Village, but it needs adornment. Signage and plantings or other efforts should be encouraged to heighten the visual interest of travelers in this area.

Recommendation 10.f.1: Establish a multi-age level, multilingual education initiative to inform all residents, regardless of background, of Village rules and policies regarding litter, property maintenance, trash collection and recycling, noise ordinances, business licensing, and building permits. Increase civic participation and pride.

Input was received during public sessions that many citizens simply are not aware of the activities of the Village that collectively maintain and improve the quality of civic life. Such classes were recommended as a way to increase participation in the governance and civic life of the Village by representatives of all of the diverse groups who live here.

10.2.3 Access to Diverse and Healthy Foods, Food Security, Basic Well-being

Objective 10.g: Improve access to healthy and diverse food choices for Haverstraw residents and increase food security.

Recommendation 10.g.1: Encourage the development of a full grocery with fresh produce and other healthy food choices, within walking or bicycling distance of Village residents.

This recommendation may duplicate others in Chapter 4, but during public sessions, the lack of a grocery or source of fresh produce in the Village was often noted. The small bodegas of Haverstraw typically have a limited selection of fresh fruits, meats, fish or vegetables. Economic development efforts should include the inclusion of a grocery or fresh produce market as part of any new efforts.

Recommendation 10.g.2: Continue to support the community garden program, and improve outreach.

The community garden provides a healthy activity, access to fresh produce, and educational opportunities for Haverstraw's young people. The Village should continue to promote and support this effort.

Recommendation 10.g.3: Consider code changes to encourage the creation and use of outdoor seating at bakeries and restaurants.

Outdoor bakery or restaurant seating adds life and vibrancy to any village. When zoning changes are considered, provisions should be included to review and allow outdoor seating where appropriate, and to provide a system for using/leasing adjacent sidewalks or public spaces, if feasible.

Recommendation 10.g.4: Educate the public through signage, website pages and printed information, regarding fishing opportunities and eating of fish caught in the Hudson, with guidance on safe species and portion sizes.

The Hudson River provides fishing opportunities just below the Village of Haverstraw's downtown. Signage should be provided at parks and access points regarding the rules and licensing requirements for fishing, and guidance from the New York State DEC on consumption of wild-caught fish.

Recommendation 10.g.5: To provide resilience to a changing climate, establish cooling centers and/or assistance with purchase and installation of air conditioning to provide emergency relief for high heat weather events.

The climate vulnerability research prepared as part of this Comprehensive Plan predicts that there will be more heat waves during the summer months. Some Haverstraw residents may not have access to air conditioning at home, and the Village may consider establishing cooling centers for lengthy heat events. Grant funding may be available to help with the purchase and/or installation of air conditioning for those unable to afford it.



11 COMMUNITY SERVICES &



11 COMMUNITY SERVICES & FACILITIES

11.1 INTRODUCTION

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- 11.3.6 The Harbors Promenade
- 11.3.7 Village-Wide Recreational Facilities

11.4 INCORPORATE SUSTAINABLE PRACTICES

The Village is currently well served by community facilities; however, constant improvement of existing resources and upgraded access to parks and amenities is required. This chapter provides a framework of goals, objectives and recommendations for the maintenance and improvement of community facilities within the Village.

FACILITIES

11 COMMUNITY SERVICES & FACILITIES

11.1 INTRODUCTION

The Village of Haverstraw community is served by approximately 12 Religious organizations, four health and adult care institutions, multiple arts and cultural institutions and the North Rockland Central School District. The Village operates the municipal offices including a Building Department, Justice Department, Assessor, Public Works, Fire Department, Youth & Family Services and Parks & Recreation Departments.

Although the Village is also well served by community facilities and is not facing any critical challenges. It should emphasize on improving and enhancing existing facilities and services, and on undertaking upgrades, replacements and expansions as required. Public sites and buildings, including Village hall, community center and fire buildings are in good condition and should be adequate to serve the community in the immediate future. Additionally, the Village is also served by 3 Village parks, 1 town park and 2 state parks, these include: Bowline Point Park, Emeline Park, African American & the Rose Nelson Memorial Park, Hi-Tor State Park, Dutchtown Park and Haverstraw Beach State Park.

While the Village is well served by public space, residents have indicated that access to parks and the quality and amenities within the parks can be improved. This plan provides a framework of goals, objectives and recommendations for the maintenance and improvement of community facilities within the Village.

Goal 8: Provide quality community services and facilities adequately to serve the needs of residents and business within the Village and ensure that the services are adaptable for future growth in an environmentally responsible manner.

Goal 3: Improve access to natural and recreational resources for all Village residents and visitors.

11.2 EVALUATE & UPGRADE EXISTING COMMUNITY SERVICES & FACILITIES

With the ongoing growth and development in and around the Village there is a growing need to evaluate performance and upgrade existing Village facilities and services. Following are the objectives and recommendations to upgrade existing services and facilities:

Objective 11.a: Define service standards to maintain and upgrade existing Village services and facilities.

Recommendation 11.a.1: Create a community facilities committee and define service standards.

The committee should devise guidelines and discuss the design, construction, maintenance and performance of community services and facilities.

The committee should also ensure high quality services and facilities by defining standards for adequate response/service levels for existing services and facilities, including, police and ambulance services, fire protection, schools and recreational opportunities.

Recommendation 11.a.2: Conduct annual community surveys.

Conduct annual / periodic surveys of residents to assess service performance and ensure that existing facilities and services continue to meet the needs of all residents. Periodic surveys would also help the Village identify the need of new services or facilities in future.

Additionally, the Village should:

- Evaluate the Village's staffing capacity, limitations, priorities and funding.
- Work with the Town of Haverstraw and other neighboring Villages and towns evaluate opportunities to regionalize studies, designs, infrastructure improvements, and services.
- Work with DPW to create a realistic action plan for improvements to infrastructure and reduction of costs for services provided.

Recommendation 11.a.3: Maintain and upgrade existing Village services and facilities.

The Village should continue to provide quality services and upgrade existing Village services and facilities to meet the needs of residents of all ages – including the needs and concerns of safety, education, recreation, culture and art. The objectives that the Village should work towards to provide quality services and facilities include:

- Provide uninterrupted services for future growth.
- Coordinate and collaborate with the Town to maintain effective fire and police protection throughout the Village.
- Improve quality of recreational services - Provide a quality four-season sports complex within the Village.
- Initiate comprehensive planning effort to provide continued development of library and school systems to meet the growing needs of the community.
- Provide special facilities and services for teens, senior citizens, the handicapped and other special needs groups.
- Embrace the community's cultural diversity, and use community facilities such as the community center to promote cross-cultural awareness

Recommendation 11.a.4: Embrace innovative solutions to improve municipal efficiency.

It is not enough to just deliver services to the residents; it is also very important to deliver the services efficiently. Consolidating services with adjacent municipalities can be an efficient way to deliver services. Municipalities and governments in proximity to one another compete for residents and service providing agencies and as a result can operate more efficiently.

The Village should work towards diluting rigid jurisdictional/departmental boundaries and roll-forward practices that can create an efficient service delivery environment with reduced government spending on average. Consolidating services can reduce service and infrastructure spillovers by developing cohesive services and infrastructure plan.

11.2.1 Maintain Village Community Center as a Focal Point

Objective 11.b: Improve the variety of recreational programs available to residents through private and/or public programs

Objective 11.c: Provide quality facilities, recreational opportunities and community programs for all ages.

The community center should be maintained as an important focal point and resource for the community. The Village should focus on the evolving role of community center to actively encourage the use of the center for a variety of activities for residents of all ages.

Recommendation 11.c.1: Use the Haverstraw Community Center as a pedestal to provide community services and programs for all ages.

The community center can be used as a pedestal for educating residents about the Village as well as future growth and development programs.

Some of the initiatives that can be planned include:

- Provide educational workshops and trainings to attract new users.
- Encourage participation from users and residents to create new programs.
- Coordinate with Schools to schedule events at the Library.
- Conduct community events for residents.

However, it is very important for the Village to actively market the services the community center provides and work with community groups to spread awareness of all the services and programs that the center offers.

11.3 RECREATIONAL FACILITIES

The Village owns and manages three parks including the Emeline Park, African American Memorial Park and Dutchtown Park, within the Village and also contains State and Town Parks including the Bowline Point Park, Hi Tor State Park and Haverstraw Beach State Park. Additionally, there is also direct access to Haverstraw – Nyack Path beginning at Dutchtown to Nyack Beach State Park. In addition to parks and a greenway trail the Village also manages Manny Lopez Municipal Ball field.

Objective 11.d: Improve quality of recreational services and resources.

Objective 11.e: Better connect recreational resources to the fabric of Village life to encourage use. (See Chapter 5, Transportation and Figure 5-3: Greenways & Open Spaces and Figure 5-4: "Central Park.")

11.3.1 Quality of Recreational Services

During public participation workshops residents identified the need to improve quality and access of recreational services such as the waterfront parks. Some of the other needs identified during the workshops included:

- i) School soccer field drainage improvements
- ii) Improve existing basketball courts.

The Village should implement and prioritize the goals and recommendations outlined in the Comprehensive plan's chapter 6 Natural Resources and Open Spaces. The chapter identifies goals and objectives that supports maintaining and further developing the Village's parks, which are important assets from a quality of life, recreational and natural resources perspective. Below are the recommendations to improve the quality of recreational services:

Recommendation 11.e.1: Improve access to and maintain the parks and recreational resources for all Village residents and visitors.

Recommendation 11.e.2: Make Henry Hudson Quadricentennial Park more inviting to Village residents and increase the feeling of safety and accessibility for users.

Recommendation 11.e.3: Improve the quality of recreational resources in the Village through capital improvement and more intensive maintenance of facilities such as the soccer field and basketball courts.

During the workshops it was identified that there have been constraints in using the soccer field. The field has issues of drainage. The Village should DPW should either fix the existing drainage issues or sign an agreement with for a third party to improve and maintain the fields.

11.3.2 Quality Four-Season Sports Complex within the Village

Objective 11.f: Provide a quality, four-season sports complex within the Village.

The need for a quality four-seasons sports complex was identified by the residents during the workshop. The Village currently lacks recreational opportunities during winter months. A new sports complex for the Village residents would be good for overall community health, wellness and social interaction.

11.3.3 Emeline Park, Henry Hudson Quadricentennial Park (HHQP) & Bowline Point Park

With the continuing implementation of the HHQP, residents have noted that Bowline Pond would be a safe place to teach kayaking and facilitate similar water-dependent recreation, and an ideal place to locate an environmental education center. Such facility for environmental education, stewardship programs and kayak or canoe rental could be strategically located adjacent to Manny Lopez Ballfields on McKenzie or Warren Avenues, or even in Bowline Pond itself, mimicking examples set by the Groundwork HV Science Barge, Hudson River Sloop Clearwater and Swale Floating Food Forest.



Emeline Park

Credit: EMWPC, December 2018



Swale, like the Science Barge, uses a barge as an educational facility.

Credit: NPV, August 2016

Several parcels in this vicinity could provide opportunity for low-impact development within the floodplain for the location of an education center and boat rental. Along Emeline Park and the Chair Factory, opportunities exist for water-enhanced restaurant experiences such as “dock and dine”.

Between Emeline Park and Bowline Town Park, numerous opportunities exist to connect residents to the water and to each other. Emeline Park is a well-used park located at the end of Main Street. Additional programming in this park would further serve residents of the Village. Activities such as evening yoga classes, outdoor summer films or dances were all mentioned during public outreach. Additionally, outreach found overwhelming support for a public multi-purpose pier off Emeline Park, adding water-dependent recreational opportunities along the shore of the Hudson River and allowing residents to further connect with and learn about the significant habitat right outside their door.

The incorporation of strategic landscaping and lighting, as well as benches and tables to create a plaza-like setting will further create “SafeScapes” for the streets themselves as well as HHQP.

Recommendation 11.f.1: Create a public multi-purpose pier at Emeline Park.

Recommendation 11.f.2: Invest in “SafeScapes” for HHQP such as benches, lighting and well-lit overlooks along HHQP to foster a more inviting atmosphere for Village Residents. (See Chapter 5, Transportation.)

Recommendation 11.f.3: Invest in a multi-purpose environmental education center adjacent to Manny Lopez Ballfield which can run hands on programs such as kayak and canoe outings or hands-on ecology exploration of Bowline Pond.



*Red Hook Food Vendors
Credit: Brownstoner LLC*

Recommendation 11.f.4: Enhance street-ends that overlook HHQP to facilitate access and awareness of the adjacent trail. (See Chapter 5, Transportation.)

Recommendation 11.f.5: Improve recreational programs available at Bowline and Emeline Parks such as yoga, kayaking, outdoor films and dancing.

11.3.4 “Central Park”- Haverstraw School Ballfields

Recommendation 11.f.6: Encourage the school to complete a drainage and maintenance study of the soccer fields.

Recommendation 11.f.7: Set aside capital improvement funds to improve the drainage on the soccer fields and improvements to the basketball courts.

Recommendation 11.f.8: Encourage the school to convert some of the land from mowed grass to landscaped areas for pollinator, rain gardens or other kinds of “productive landscape” to restore natural habitats and contribute to improving stormwater quality or food security.

Recommendation 11.f.9: Create or formalize pathways to safely connect residential neighborhoods north of the park to downtown and the surrounding civic amenities. Funding through Safe Routes to School may be available for these improvements.

11.3.5 High Tor State Park & Haverstraw Beach State Park

Objective 11.g: Improve wayfinding signage and access to recreational facilities including the High Tor State Park and Haverstraw Beach Park.

High Tor and Haverstraw Beach State Park are managed by the state; however, these are important recreational resources for the Village residents and visitors. However, a need to improve way finding and access to these assets was identified during public workshops. In addition to way finding, 'SafeScapes', signage, pedestrian and bike accommodations are also needed to improve access to these parks.

Recommendation 11.g.1: Collaborate and discuss with High Tor State Park the feasibility of improving wayfinding signage to the unmarked trailhead on Dowd Street via Route 208.

Recommendation 11.g.2: Promote the Village as a gateway to High Tor.

Recommendation 11.g.3: Improve wayfinding signage for Haverstraw Beach State Park at the Riverside Ave/Short Clove intersection, West and Maple and other areas downtown.

Recommendation 11.g.4: Improve wayfinding signage and parking accommodations for the trail that connects at Route Short Clove Road/Old Route 304.

Recommendation 11.g.5: Provide a bike lane starting at New Main Street and Maple Avenue and continuing down Riverside Avenue to the Haverstraw Beach State Park Trailhead. (See Chapter 5, Transportation, Section 5.7 Bicycles.)

Recommendation 11.g.6: Invest in SafeScapes along West and Maple, and along Riverside Avenue, particularly where it crosses through Tilcon property.

Lighting, landscaping and signage will add to the feeling that Riverside Avenue is a public right of way and safe for bikers and pedestrians. Improved access improves both use and quality of community facilities.

11.3.6 The Harbors Promenade

The Harbors is a multifamily residential development located just south of the Ferry Landing on Site A of the waterfront development district. The site features a wide hardscaped promenade with landscaping that has been dedicated to public use and provides panoramic views of the Hudson River and the Highlands east of the river, as well as views of Hook Mountain and the Palisades to the south. Public outreach revealed that very few Haverstraw residents utilize this public area due to its perceived remote location off of West Street/Riverside Avenue and set back from the roadway, behind the multifamily complex.

Objective 11.h: Make Harbors Promenade inviting to Village residents.



Kiosk at The Harbors Promenade.

Credit: EMWPC, December 2018

Recommendations 11.h.1: Make the Harbors Waterfront Promenade more inviting to residents outside of the Harbors residential development through improved wayfinding and on-site programming.

Improved signage along Riverside Avenue and wayfinding signage starting closer to downtown would raise awareness of both this resource and Haverstraw Beach State Park. A sign noting the public promenade at the entrance of the Harbors complex would make the public feel invited in. Alternately, a safe and inviting alternative entrance to the promenade via Girling Drive, and Round Point Drive could be created, though the existing entrance via Riverside Avenue already contains sidewalks and inviting landscaping.

Programming and marketing the promenade with activities such as locating running club events, yoga or exercise classes, outdoor movie nights or live music will invite Village residents to enjoy the promenade along with residents of the Harbors.



The Harbors Promenade.
Credit: EMWPC, December 2018

Future projects surrounding the area may also help to encourage the public use of the promenade. Adding economic amenities to the Ferry Landing such as a restaurant or café, and the future development of Site B would likely increase pedestrian traffic and visibility of the extensive public waterfront in Haverstraw.

In addition, the future anticipated dedication of the wetland north of the Tilcon property and south of the Harbors offers the opportunity to extend the promenade into wetland boardwalk park which might offer recreation focused on nature interpretation, and a protected place to fish or launch a human-powered boating vessel. Diversified recreational activity along the Haverstraw Riverfront will promote multiple users at different times of day, ensuring that these valuable spaces serve the community.

Recommendations 11.h.2: Encourage utilization of the mooring field offshore of the Harbors Promenade.



The Harbors Promenade.
Credit: EMWPC, December 2018

The existing mooring field offshore of the Harbors Promenade is not utilized to its full extent currently. Encouraging the utilization of the mooring field will provide additional mooring opportunities as well as invite residents outside of Harbors to the waterfront promenade.



Existing Ferry Terminal.

Credit: EMWPC, December 2018

11.3.7 Village-Wide Recreation Facilities

The business district contains several “pocket parks” at street corners like the corner of Maple and new Main, the corner of Main and Rockland Street and at Main and 2nd street, however many of these areas are fenced with gates and recreational or social use therefore controlled. The Village should consider expanding the use and function of existing pocket parks both for recreational gathering and for environmental benefit, for example adding rain or pollinator gardens to capture and clean stormwater from the roadways. (See Chapters 6 and 9, Natural Resources and Utilities.)

Objective 11.i: Expand the use and function of existing pocket parks for recreational purposes and environmental benefits.

Recommendation 11.i.1: Add plazas throughout the downtown to reduce pedestrian conflicts, encourage passive outdoor recreation and safe community socialization.

Public workshop participants conveyed their interest in developing public plazas for residents to informally gather and play games such as chess or cards. Areas such as at the end of Division Street or on the Corner of Jefferson Street and Broadway near the Lady Warren Hose co. were proposed for such use. The Village should conduct a study of potential sites for a plaza and consider multi-purpose interactive elements such as chess tables like those found in Washington Square Park in New York City and seating built into landscape elements.

Existing underutilized open spaces such as space around the community center, should be explored as an opportunity to create a small vest pocket park. Such parks can be utilized as outdoor gathering place for adults as well as children. Protected small vest pocket parks would create outdoor spaces where people could gather under the shade of trees, contoured concrete benches and game tables.



Chess Tables in Washington Square Park, NYC.

Credit: Researching Greenwich Village History, Checkmate

11.4 INCORPORATE SUSTAINABLE PRACTICES

Recommendation 11.i.2: Incorporate sustainable practices in everyday operations and maintenance of existing and future community services and facilities.

- Reduce operational and maintenance costs of community services and facilities.
- Set examples of sustainable operations and help promote high standards of development in the Village.



Sketch of Suggested Vest Pocket Parks.

Credit: EMWPC., July 2004

The Village should incorporate green building and alternative energy practices in community facilities and Village buildings. Periodic energy audits for Village facilities, identifying areas of inefficiency, and alternatives for reducing energy consumption of Village facilities and services would set examples of high standard sustainable operations for the residents and business within the Village.

Recommendation 11.i.3: Reduce operations and maintenance costs of community services and facilities by incorporating sustainable practices.

The Village should incorporate sustainable practices in operations and maintenance of the facility buildings. This would not only reduce the operation costs, but it would also contribute towards environmental conservation.

Recommendation 11.i.4: Provide facilities that are environmentally responsible, equitable and adaptable.

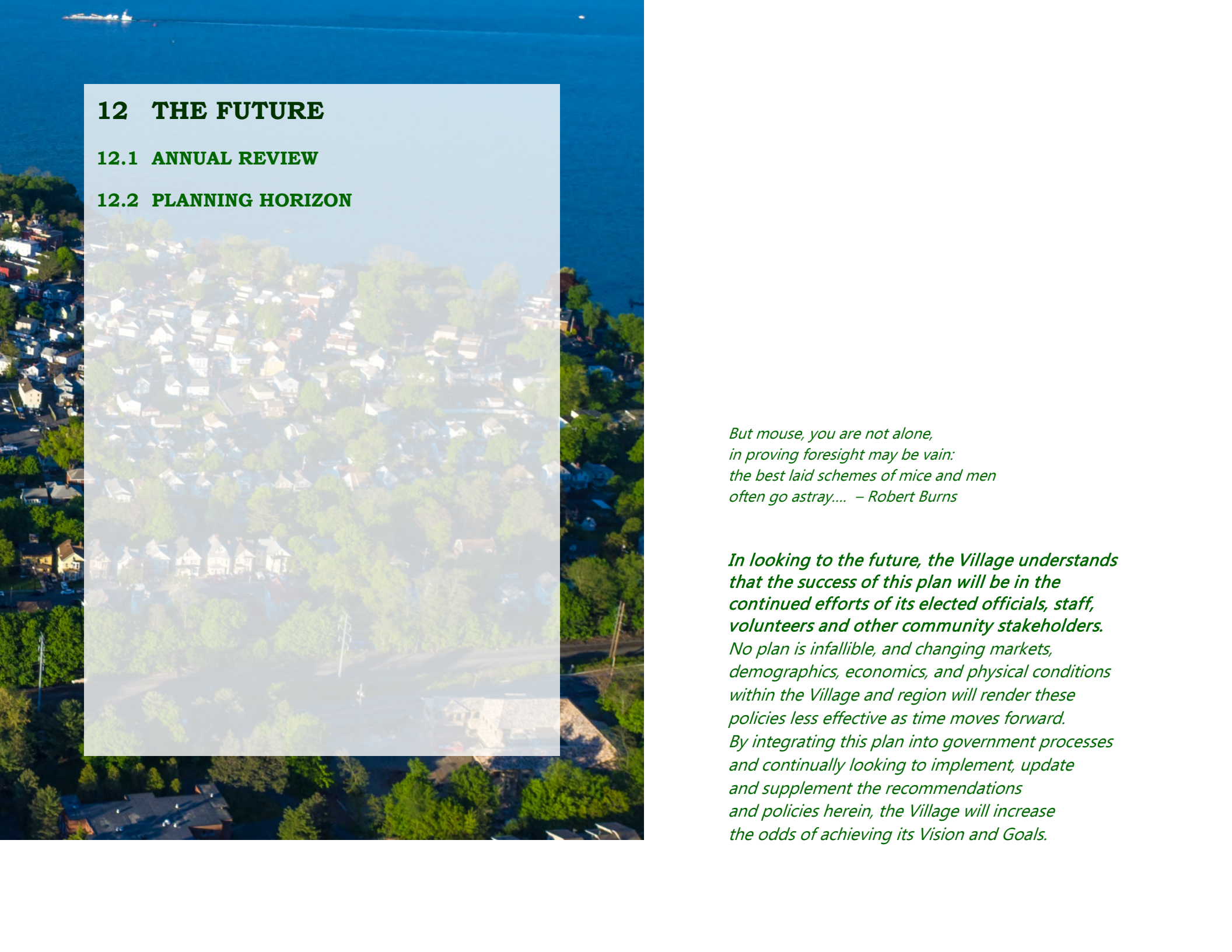
In order for the Village facilities and services to be sustainable it is important that the facilities are:

- Environmentally responsible by incorporating practices such as minimizing energy usage, managing stormwater on site, using water and land efficiently.
- Equitable and accessible to a broad range of people across ages, ethnicity, interests and socio-economic levels.
- Can be adapted to accommodate changing demographics of the Village population.



12

T H E F U T U R E

An aerial photograph of a coastal town, likely in Maine, showing a dense cluster of houses and trees on a hillside overlooking a body of water. A large, semi-transparent white box is overlaid on the left side of the image, containing the text for this section.

12 THE FUTURE

12.1 ANNUAL REVIEW

12.2 PLANNING HORIZON

*But mouse, you are not alone,
in proving foresight may be vain:
the best laid schemes of mice and men
often go astray.... – Robert Burns*

In looking to the future, the Village understands that the success of this plan will be in the continued efforts of its elected officials, staff, volunteers and other community stakeholders. No plan is infallible, and changing markets, demographics, economics, and physical conditions within the Village and region will render these policies less effective as time moves forward. By integrating this plan into government processes and continually looking to implement, update and supplement the recommendations and policies herein, the Village will increase the odds of achieving its Vision and Goals.

12 THE FUTURE

12.1 ANNUAL REVIEW

The best chance of sustainable growth is achieved when the Comprehensive Plan includes a strategy to ensure its employment and periodic updating. In recognition of the time and effort that has been expended in the preparation of this Comprehensive Plan, and in acknowledgment of the fact that no plan can account for all possible eventualities and outcomes, it is the desire of the Village of Haverstraw that this Plan become an integral part of the operation of local government. To this end it is the final recommendation of the *Village of Haverstraw Comprehensive Plan* that a local law be adopted that requires a review and report be commissioned and delivered to the Board of Trustees each year before the Board adopts its annual budget.

Recommendation 12.1: Adopt a local law requiring a review and report about the status and progress of the Comprehensive Plan to be commissioned and delivered to the Board of Trustees each year before the Board adopts its annual budget.

For this purpose, it is suggested that each year in October, the Village Board assemble a three- to five-member Comprehensive Plan Review

Planning Board member, and such other members-at-large as are chosen by the Board of Trustees. Such group should review the Comprehensive Plan and its implementation matrix and identify which recommendations have been implemented and prioritize those recommendations which have not yet been implemented and include priority actions. The Committee should also make recommendations as to what issues may have arisen over the preceding year that may require a partial or comprehensive reexamination of the Plan.

It is suggested that instituting such a process will make it more likely that the goals and objectives identified herein may be made a reality, and that this Plan will become an intrinsic element of Village local government, thereby unifying the efforts of its Board of Trustees, Planning, Zoning and other development review boards, as well as the local business community and residents.

12.2 PLANNING HORIZON

This Comprehensive Plan was developed to promote strategies for the Village over the next 10-12 years. The Village of Haverstraw does not intend that its primary land use policy document go 26 years between updates as it did between 1993 and 2019. It is the intention of this plan that the Village commence a comprehensive update of this plan no later than 2029.



Sunrise on the Hudson River
Credit: Andrea Caccuro, November 2019

