# Orangetown Comprehensive Plan

September 2022





# Table of Contents

- 4 Introduction and Project Overview
- Current and Future Land Use, Zoning, and Design
- 78 Community Character and Historic Resources
- 98 Transportation, Mobility, and Parking
- Economic Development and Downtown Revitalization
- Open Space and Recreation
- 188 Sustainability and Climate Resiliency
- Next Steps, Action Items, and Implementation

Appendix A: Community Survey Report Appendix B: Town Officials Survey Report

# Appendix A Community Survey Report

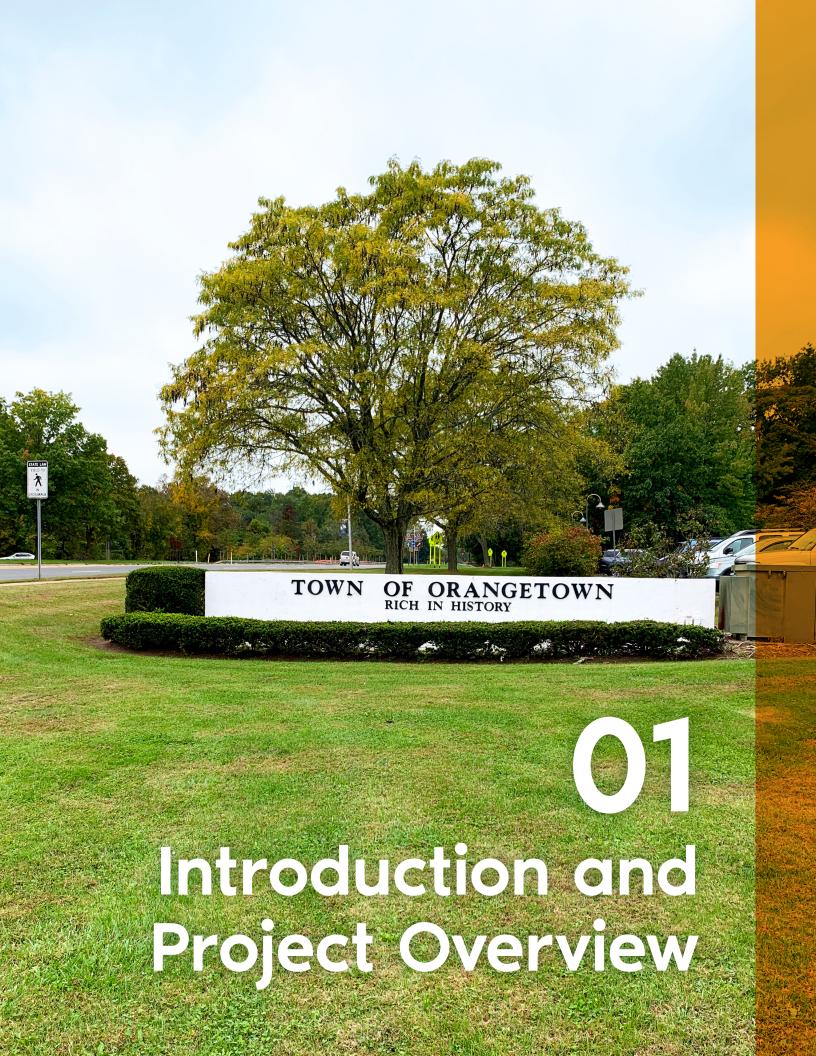
# Appendix B

# Town Officials Survey Report



**Orangetown Town Hall** 

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What is a Comprehensive Plan?

How Do You Use a Comprehensive Plan?

**Comprehensive Plan History and Planning Process** 

**Comprehensive Plan Organization** 

Vision, Goals, and Objectives

Previous Image: © AKRF



Joseph B Clarke Rail Trail, Sparkill © AKRF

# What is a Comprehensive Plan?

A Comprehensive Plan is the official public long-term planning document that establishes a community's goals and aspirations for the future, while providing a roadmap for how to achieve them. In New York State, the comprehensive plan provides the rationale for the zoning and other land use regulations found in the Town Code. The comprehensive plan presents a snapshot of the current state of the Town, and offers guidance for its future. Through a series of public workshops, community surveys, committee work sessions, and public hearings, the Comprehensive Plan Committee (CPC) and the Town Board garnered input from residents, community leaders, Town staff, and business owners. This input from the Orangetown community is reflected in the Comprehensive Plan's goals and recommendations and will serve as a guiding framework for the Town's growth and development in the coming years.

Definition of "Comprehensive Plan" A "comprehensive plan" is defined in New York State Town Law §272-a.2(a) as "the materials, written and/or graphic, including but not limited to maps, charts, studies, resolutions, reports and other descriptive material that identify the goals, objectives, principles,

guidelines, policies, standards, devices and instruments for the immediate and long-range protection, enhancement, growth and development of the town located outside the limits of any incorporated village or city."

All land regulations (e.g., zoning, subdivision, natural resource protection) must be "in accordance with a comprehensive plan," pursuant to New York State Town Law §263. Consequently, the policies articulated in a comprehensive plan serve as the basis for future revisions to the Town's land use regulations. But a comprehensive plan is not the law. Rather, the plan only sets the direction and goals for the community and recommends, in a general way, how to achieve them.

The process of preparing the comprehensive plan engages Town residents, business owners, officials, and leaders in discussions about what is working, what is not working, and how the Town views its potential in the short, medium, and long-term.

The comprehensive plan presents a vision grounded in the practical reality of a community's natural, financial, and physical resources and constraints.

The goals and action items in the Town of Orangetown 2022 Comprehensive Plan are based on local priorities for land use patterns, economic growth, resource protection, and quality of life. Unanimous agreement about the future is not the goal of the 2022 Comprehensive Plan. Rather, it strives to balance the opinions that collectively manage change. The 2022 Comprehensive Plan should reflect a coherent vision of a diverse population, from children to senior citizens, and newcomers to generational residents. The Town of Orangetown 2022 Comprehensive Plan sets forth goals and actions that will enable the Town to navigate changes in resources, and to thrive as a desirable place to live, work, and recreate for decades to come.



Intersection of Fifth Avenue and Sickletown Road, Blauvelt © AKRF

# How Do You Use a Comprehensive Plan?

The comprehensive plan presents an overall vision for the future of a municipality, establishes goals to achieve that vision, recommends specific strategies, and assigns responsibility for implementing the comprehensive plan's recommendations. It is an action plan, setting out goals and objectives to achieve the community's vision, and a working document, which should evolve with the changing needs of the community.

# Official Policy Document

When a Town Board adopts a comprehensive plan, the Town Board affirms the plan as an official policy document, and thus, it is key that the plan represents the views of the entire community. Thus, it is necessary that the vision for the future, as set out in the plan, has been vetted by the community and identifies key action items. The plan also provides a blueprint for use by the town government, land use boards, volunteer groups and committees, and local residents and business owners, to implement recommendations that promote appropriate growth and development in the town.

## Does Not Affect Zoning Code Nor Existing Property Rights

Adoption of a comprehensive plan by a Town Board, on its own, does not affect the town's zoning code, nor does it restrict existing private property rights of residents. However, applications for development submitted to the town's reviewing boards must be considered in the context of the goals and objectives set out in the comprehensive plan. If an application is inconsistent with the goals of a comprehensive plan, the applicant must then justify to the relevant reviewing board that the project will not contradict the overall town goals set out in the comprehensive plan.

Lastly, while a comprehensive plan may (and usually will) recommend changes to the town's zoning code to achieve the plan's stated goals, actual changes to the zoning code require a separate and distinct process. The comprehensive plan is a tool to guide development, but not an instrument to change existing laws and codes.

The real success of any comprehensive plan lies in its implementation. Without successful implementation, the plan is of little benefit to a municipality.



Orangetown Town Hall © AKRF

# Comprehensive Plan History and Planning Process

An update to the Town of Orangetown's 2003 Comprehensive Plan The Town of Orangetown 2022 Comprehensive Plan was produced with the input of elected officials, town staff, community leaders, business owners, and residents, who through a robust public engagement process, led by the CPC, shaped its vision, goals, and recommendations. The Town of Orangetown last updated its plan in 2003. This new plan builds on the policies and action items of the 2003 Comprehensive Plan, as well as subsequent special area plans and technical studies, to establish a guiding framework for future sustainable development, economic growth, and natural resource preservation in the Town.

# Town of Orangetown 2003 Comprehensive Plan (predecessor)

In 2000, the Orangetown Town Board initiated a process to update its existing comprehensive plan. The Town Board retained professional planning consultants and established a committee of town residents and officials to assist in its drafting. The plan evolved over a two-year planning process that involved twelve community meetings and two formal public hearings. A Generic Environmental Impact Statement (GEIS) was prepared pursuant to the State Environmental Quality Review Act (SEQRA) and a Findings Statement was adopted on September 23, 2002. The 2003 Comprehensive Plan was adopted on May 12, 2003.

Town Board Meeting Minutes, May 12, 2003. <a href="https://www.orangetown.com/meeting/special-town-board-meeting-may-12th-2003/">https://www.orangetown.com/meeting/special-town-board-meeting-may-12th-2003/</a> (retrieved December 27, 2021).

Town of Orangetown 2003 Comprehensive Plan The 2003 Comprehensive Plan established five main goals:

- Recreation and Open Space Provide additional open space and recreation facilities to serve existing and anticipated population needs and balance development and environmental preservation goals;
- 2. Residential Development Provide decent housing for present and future residents;
- Commercial, Office, and Industrial Development Provide local employment opportunities, necessary tax ratables, and a broad array of services for community residents;
- **4. Transportation and Infrastructure** Support residential and commercial development while balancing environmental preservation; and
- 5. Community Facilities Maintain an adequate level of service, while concurrently planning for the projected growth in the Town's senior population, an increased level of ethnic and racial diversity, and the changes in service that those factors could generate.

To achieve these goals, the 2003 Comprehensive Plan provided zoning and land development recommendations in its "Implementation" chapter. Those recommendations, and their respective outcomes, are summarized in **Table 1-1** and **Table 1-2**.

Table 1-1

2003 Comprehensive Plan Recommendations and Outcomes

Topic Area	Recommendation	Outcome
NYS Route 303 Office and Industrial Zoning	Retain existing office and industrial zoning (LI, LO, LIO), but reduce maximum development. Lower FAR in LI from 0.5 to 0.4; Lower FAR in LIO and LO from 0.4 to 0.3; require landscape buffers on lots with NYS Route 303 frontage.	No reduction in maximum FAR within the Route 303 Overlay Zoning District (see Zoning Code §§13.1 to 13.10; other land use restrictions imposed under § 13.10, including landscaped buffers.
NYS Route 303 Density for Commercial Development	Lower the CC zoning FAR along NYS Route 303 from 0.3 to 0.2; in Tappan area of Route 303, rezone CS to CC.	No change to FAR; no rezoning.
Sparkill Creek Area	Route 303 Sustainable Development Study called for creation of Sparkill Creek greenway path.	Unclear if this was done.
Environmental Protection Regulations and Cluster	Adopt regulations to protect sensitive environmental areas, including features related to development – (i) on steep slopes; (ii) along prominent ridgelines; (iii) within or in close proximity to wetlands and waterbodies to require 100-foot buffer.	Unclear if this was done.
Development	Planning Board should use its authority to mandate cluster design techniques.	
	Designate additional Critical Environmental Areas (CEAs) in the Town.	
Innovative Zoning Techniques	For vacant and underutilized parcels of land throughout the Town, encourage incentive zoning, floating zones (like planned unit development), and clustering.	Unclear if this was done.

Topic Area	Recommendation	Outcome
Senior Housing	A clearly established Town policy on senior citizen housing, along with appropriate standards for each type of living arrangement should be articulated in the Zoning Code.	Planned Adult Community (PAC) floating zone added to Zoning Code (§ 4.6) in 2004.
Rezoning	Undertake rezoning to reduce density in the Clausland Mountain area, including Tweed Boulevard and Route 9W, changing zoning from R-22 to R-40.  Rezone quasi-public sites, including existing public school district sites and properties owned by various colleges, to R-80.	Unclear if this was done.
Landscaping Development Sites	Zoning Code needs to establish minimum standards for landscape treatment. Consider amending parking regulations to require planting islands, street trees, and/or sidewalks.	Unclear if this was done.
Houses and Lot Size	Consider lowering FARs for single-family home construction; add maximum impervious surface zoning requirement for residential properties; update the Orangetown Street Specifications for Subdivisions (Chapter 40 of Town Code)	These recommendations were not implemented.
Zoning in Pearl River	Revise commercial zoning in Pearl River, in order to strengthen Central Avenue as a mixed-use development.	TOD regulations were proposed for Pearl River in 2019, but were not adopted.
Administration	Planning and zoning in Orangetown is complicated by multiagency reviews required by Zoning Code – recommend updating the Zoning code to assign approvals to appropriate boards.	Unclear if this was done.

Sources: Town of Orangetown Comprehensive Plan (2003), Chapter V, pages V-1 to V-15.

Table 1-2 **2003 Comprehensive Plan Short-Term Action Program** 

Topic Area	Recommendation	Outcome
Zoning Code	Comprehensive revision of the Zoning Ordinance and related land development regulations, including environmental protection regulations and watercourse diversion regulations, and senior citizen zoning recommendations.	No comprehensive revision.
Downtown Revitalization	Continuation of downtown revitalization program in Pearl River, including visual design, zoning, and promotion efforts described in Comp Plan. Implement similar efforts in other hamlet centers.	A special area plan and TOD regula- tions were proposed but not adopted.
Open Space	Acquisition and development of additional open space and recreational facilities, including portions of the Rockland Psychiatric Center site.	Soccer complex and little league fields were built at RPC site.
Overlay Zoning	Continued implementation of Overlay Zoning District and safety improvements along NYS Route 303 as called for in the Route 303 Sustainable Development Study.	Based on community feedback through the 2022 Comprehensive Planning process, the Route 303 Overlay Zoning District should be revisited.

 $\textbf{Sources:} \ \ \text{Town of Orangetown Comprehensive Plan (2003), Chapter V, pages V-1 to V-15.}$ 

## **2022 Comprehensive Plan**

A comprehensive plan should be updated periodically to reflect changing demographics and community needs. In 2020, the Town of Orangetown embarked on an update by releasing an RFP for a planning consultant to guide the Town through the comprehensive plan process. The Town engaged two consultants – AKRF, Inc., and MUD Workshop in May 2021, and meetings between the Town and consultants began in June 2021. At the September 28, 2021, Town Board Meeting, the Town Board appointed members to a Comprehensive Plan Committee (CPC), to work with the consultants and oversee the drafting of the 2022 Comprehensive Plan.<sup>2</sup> The CPC consists of seven members: Town of Orangetown Supervisor Teresa Kenny, Chairperson of the CPC, and six additional Town of Orangetown employees – Allison Kardon, Jane Slavin, Jim Dean, Eamon Reilly, Aric Gorton, and Richard Pakola. Between September 2021 and May 2022, the CPC met monthly to review progress on the Comprehensive Plan. All meetings were available for public viewing either in person or on a virtual platform, and meeting agendas, minutes, and other relevant documents were posted to the Town's website.

#### Community Outreach

Various community outreach efforts were undertaken during the comprehensive plan process. These efforts were promoted throughout the Town of Orangetown using digital broadcasting on the Town's website and through social media, as well as periodic email blasts and postcards sent by the Town to its residents. Engagement in the planning process was also promoted at the Pearl River Day Festival on October 16, 2021, and individually by members of the CPC by reaching out to community leaders and groups known to the CPC members.

#### **Public Survey**

The CPC conducted a public survey from September 28 to November 3, 2021. During that time, the survey received 1,097 responses. The public survey included multiple choice questions and descriptive inputs regarding Comprehensive Plan elements including land use, transportation, open space, development, economics, and sustainability. The results of the public survey are included as part of **Appendix A**. The CPC also conducted a survey of Town officials and staff from September 28 to November 3, 2021. During that time, the survey received 70 responses from officials across nineteen different boards and departments. The results of the Town officials survey are included as part of **Appendix B**.

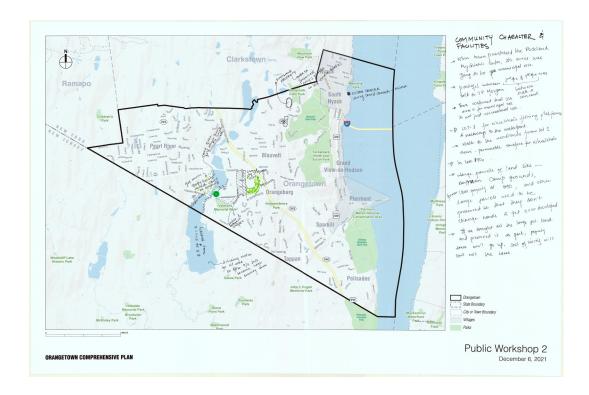
<sup>2</sup> Town Board Meeting Minutes, September 28, 2021. <a href="https://www.orangetown.com/wp-content/uploads/2021/10/M09.28.21-RTBM-Exhibits.pdf">https://www.orangetown.com/wp-content/uploads/2021/10/M09.28.21-RTBM-Exhibits.pdf</a> (retrieved December 27, 2021).



The CPC hosted several public workshops. During the public workshops, participants were invited to discuss their vision for the future and provide recommendations for the Comprehensive Plan Update. These were conducted on October 18, 2021 (via a virtual platform), on December 6, 2021 (in-person), and December 7, 2021 (via a virtual platform).

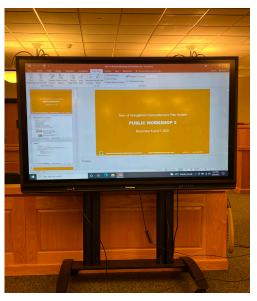
### October 18, 2021 Workshop

During the October 18, 2021 workshop, AKRF and MUD presented information on existing conditions in the Town, as well as the initial results of the public survey, which was ongoing at that time. Workshop participants participated in two visioning exercises, "Vision Wall" and "Tag-a-Photo", during which they were able to provide place-based feedback specific to multiple themes including community facilities, sustainability, land use, housing, and transportation and mobility. Through the "Vision Wall" exercise, participants were able to express approval or disapproval for various goals and objectives across multiple categories, and respond with comments. Through the "Tag-a-Photo" exercise, participants were able to select a specific location on a map of Orangetown, tag the location as "Something I like", "Something I don't like", or "A priority I have", and provide associated commentary, and if desired, upload a photo to support the participant's point.



December 6 (In-Person) and December 7 (Online), 2021 Workshop

During the December 6 in-person and December 7 online workshops (which included the same content as one another), the Town's consultants presented an overview of the comprehensive planning process, as well as the final results of the public survey. Participants were then able to participate in various exercises. During "Dotmocracy", participants indicated whether they supported various goals and strategies, and were able to suggest edits to those goals and strategies, or offer entirely new ones. Feedback from the participants was subsequently used to revise the goals and strategies of the 2022 Comprehensive Plan to better align with public feedback and concerns.



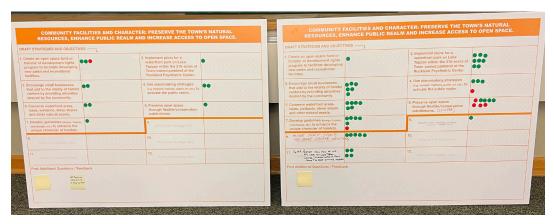
Public Workshop on December 6 © AKRF

April 28, 2022 Workshop The CPC held a third in-person public workshop on April 28, 2022 to review the proposed Comprehensive Plan recommendations and implementation strategies. Participants at this workshop used "Dotmocracy" boards and break-out sessions to provide feedback on the recommendations and strategies. Feedback from this session was integrated into the draft Comprehensive Plan.



Complete
"Dotmacracy" Boards
at Public Workshop,
December 6 © AKRF

Following the surveys and public workshops, the CPC continued monthly meetings as the 2022 Comprehensive Plan was drafted.



Complete "Dotmacracy" Boards at Public Workshop, December 6  $^{\odot}$  AKRF



Top Image: "Dotmacracy" Boards at Public Workshop. Bottom Image: Breakout Tables at Public Workshop, December 6 © AKRF

# Comprehensive Plan Organization

The Comprehensive Plan is organized into eight chapters, as follows:

1 Introduction and Project Overview

A discussion of the use and purpose of a comprehensive plan, the history and planning process for the 2022 Comprehensive Plan, and the vision, goals, and objectives established by the 2022 Plan.

2 Current and Future Land Use, Zoning, and Design

Existing and proposed plans for Town-wide land use, including suggested changes to land use mechanisms and the Town's Zoning Code.

Community Character and Historic Resources

Discussion of the character of the Town, as well as the unique character of the hamlets (Blauvelt, Orangeburg, Palisades, Pearl River, South Nyack, Sparkill, Tappan, and Upper Grandview), identification of historic resources, and strategies for community and historic preservation.

Transportation,
Mobility, and Parking

An overview of existing transportation infrastructure in the Town, and recommendations for improving mobility, travel patterns, and infrastructure, along with suggested implementation strategies.

Economic Development and Downtown Revitalization

Tools and initiatives that promote economic development while protecting and enhancing the qualities of downtown areas of the Town, especially within the hamlets.

6 Open Space and Recreation

An inventory of the Town's parks, outdoor recreation, and other opens spaces, discussion of their vital role in the community and to the environment, and recommendations to preserve and improve the quality of the Town's natural resources.

7 Sustainability and Climate Resiliency

Discussion of the Town's natural features, including topography and wetlands, challenges related to flooding and erosion, and recommendations to promote sustainable development and plan for climate resiliency.

8 Next Steps, Action Items, and Implementation

An implementation plan with designated timelines.

Comprehensive Plans are most actionable when the goals advanced are realistic and achievable. Without a detailed a specific program for implementing those goals, comprehensive plans risk becoming an academic exercise, rather than an actionable plan for the future. Therefore, comprehensive plans must also consider local government constraints and priorities, funding

challenges, and regulatory processes. As such, Chapter 8 of the 2022 Comprehensive Plan details the strategies and recommendations found throughout Chapters 2 through 7, and offers concrete short-, medium-, and long-term steps that the Town may take to realize its vision for the future.

# Vision, Goals, and Objectives

With its natural beauty, convenient location, quality schools, cultural resources, and historic hamlets, Orangetown is a wonderful community to live in. An overarching goal of the Comprehensive Plan is to enhance the quality-of-life features and community resources that draw residents and businesses to the Town.

A central aspect of the Vision is to ensure that the goals below address the community's definition of sustainability, as well as the three "E's" of sustainability: environment, economy, and equity. The environment and economy components are addressed in specific chapters, while the equity component, which aims to ensure an even distribution of the burdens and benefits of policy actions across the community, is woven throughout.



Maintain the Town's community and neighborhood character while balancing the need for growth and development.

Objective 1	Encourage an appropriate balance of residential and non-residential
	development.

- **Objective 2** Update and modernize the Zoning Code to simplify enforcement, remove inconsistencies, and regulate new land uses not previously contemplated.
- **Objective 3** Develop design guidelines for façades, signage, and streetscapes to preserve, protect, and enhance the unique characteristics of each hamlet.
- **Objective 4** Develop measures to increase the efficiency of the Zoning Code and land use review process.
- **Objective 5** Discourage new warehouse and distribution center land uses in certain zoning districts, particularly near residential areas.
- **Objective 6** Develop design guidelines and performance standards to better regulate certain land uses and to protect open space, viewsheds, historic resources, and community character.
- **Objective 7** Strengthen zoning and code protections for natural resources such as wetlands, trees, stormwater, flooding, steep slopes, and ridgelines.



Preserve history, open space, and hamlet center character, while promoting a diversity of housing options in appropriate neighborhoods to ensure members of the community have access to quality housing.

Objective 1 Update the Zoning Code to allow a diversity of housing types (e.g. townhomes, duplexes, mixed-use buildings, and apartment building style condominiums) in appropriately identified areas to meet the various needs of the community, including first-time home buyers/renters and downsizing seniors.

**Objective 2** Maintain an adequate supply of senior housing and for a variety of income levels.

Objective 3 Where appropriate, update the Zoning Map and Code to create transitional districts between hamlet centers and single-family neighborhoods.

**Objective 4** Establish efforts and mechanisms, including more robust zoning and development enforcement, to protect and preserve hamlet character.



Strengthen the Town's transportation network for vehicles, pedestrians, and alternative modes of mobility.

Objective 1 Design and implement context-sensitive dedicated bicycle lanes (on- and

off-road) to improve bicycle access and safety.

**Objective 2** Provide additional sidewalks throughout the Town to improve pedestrian access and safety, where appropriate.

**Objective 3** Create a road maintenance program, with dedicated capital funds.

**Objective 4** Create pedestrian-friendly, walkable streets in key hamlet centers by limiting traffic during certain times on low-traffic roadways.

**Objective 5** Implement walkable, green streetscapes and rights-of-way.

**Objective 6** Establish performance standards within the Zoning Code to mitigate traffic impacts. Address congestion and parking shortage in key areas.

**Objective 7** Update the Zoning Code to include design guidelines and protections for rural and scenic roadways.

**Objective 8** Encourage more robust enforcement of traffic regulations, particularly those related to semi-truck, delivery, and warehouse traffic.

**Objective 9** Implement the Complete Streets policy.

**Objective 10** Introduce traffic calming into residential neighborhoods where streets

are wider than needed by introducing channelization, adding bikes lanes, shoulders, and traffic circles to reduce vehicle speeds.

Objective 11 Work with local transit providers (e.g., Rockland Coaches, Metro-North,

etc.) to expand and improve transit service.



Electric vehicle charging station, Pearl River © AKRF



Promote sustainable development and plan for climate resiliency.

**Objective 1** Identify and develop mitigation plans for areas at high risk of flooding,

**Objective 2** Increase the use of renewable energy for Town facilities.

**Objective 3** Encourage the use of green building technologies for new development

projects and retrofits by offering incentives (including streamlined

including making improvements to public infrastructure (e.g., sewers).

approvals).

**Objective 4** Encourage the installation of electric vehicle (EV) charging stations in public areas. **Objective 5** Review and update local regulations to promote resilient construction practices, manage stormwater, and reduce flooding. **Objective 6** Update the Town's tree preservation ordinance (Chapter 35, "Trees and Shrubbery") which was last updated in 1973, to establish more robust preservation regulations. **Objective 7** Build on the success of the Town's Community Choice Aggregation Program and provide additional Town incentives for green energy such as fast-tracked approvals and tax incentives. **Objective 8** Create and enforce regulations to limit noise and air pollution coming from light industrial zoned areas, especially those close to residential neighborhoods. **Objective 9** Revisit goals of the 2002 Route 303 Sustainable Development Study. **Objective 10** Continue to apply for grants, such as the New York State Climate Smart Communities Grant, to implement sustainability objectives and prepare a Climate Action Plan.



Preserve the Town's natural resources and increase access to parks and open space.

Objective 1 Encourage preservation of open space through flexible/conservation subdivisions which cluster new development to preserve larger contiguous areas of open space.

**Objective 2** Work with the New York State legislature to establish a preservation fund that can be used to acquire property for open space, recreation, or historic reservation.

**Objective 3** Establish a long-term open space preservation plan to guide the implementation of the Town's open space fund.

**Objective 4** Encourage conservation of waterfront areas, lakes, wetlands, steep slopes and other natural assets.

Objective 5 Implement the plans for a waterfront park on Lake Tappan within the 216-acres of Town-owned land at the Rockland Psychiatric Center, including walking trails, wheelchair accessible trails, and access to water for passive recreation activities.

**Objective 6** Encourage conversion of inactive rail lines into rail trail facilities to develop a network connecting with trails in adjacent municipalities.



Downtown Pearl River © AKRF



Provide a healthy economic environment for communitybased businesses that maintain the Town's tax base and provide jobs and services to the Town's residents.

- Objective 1 Encourage small businesses and support downtown revitalization by exploring grant and funding opportunities, and educating business owners on how to apply for those opportunities.
- **Objective 2** Attract small businesses that add to the vitality of hamlet centers by providing cultural, recreational, and entertainment amenities desired by the community.
- Objective 3 Utilize placemaking strategies such as annual community events, pop-up holiday markets, farmers markets, public art, and live entertainment to draw residents and visitors to the community, patrons to local businesses, and to activate the public realm.



**Land Use Existing Conditions** 

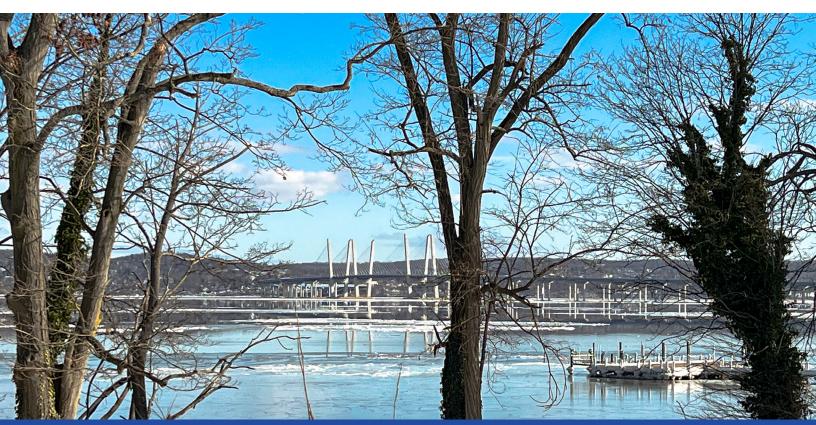
**Existing Land Use Policies** 

**Zoning Existing Conditions** 

**Land Development and Environmental Regulations** 

**Community Views on Land Use and Zoning** 

Vision, Goals, and Objectives



South Nyack © AKRF

# Introduction

Orangetown is the southernmost town in Rockland County, New York. It is bordered to the east by the Hudson River, to the south by New Jersey (Bergen County), to the west by the Town of Ramapo (and its Village of Chestnut Ridge), and to the north by the Town of Clarkstown. Land uses throughout the Town include residential communities of single-family houses, various Town, County, and State parks and open spaces, and centers of retail, restaurant, and office commercial activity generally located in hamlet centers and along major roads. The NYS Route 303 corridor, which runs north-south through the Town, is heavily developed and is predominantly a mix of commercial and industrial uses, including various warehouse, distribution, and manufacturing centers. Other major roadways include the Palisades Interstate Parkway, a limited access highway which runs southeast to north-west through the Town, and US Route 9W, a two-lane road which runs north-south through the Town along the western cliffs of the Hudson River.

# The Comprehensive Plan establishes the overall land use vision for the Town, and sets forth strategies and objectives to achieve that vision.

The vision is influenced by the historic growth of the community, existing travel patterns and transportation networks, and current land use regulations that govern the location, scale, and intensity of uses. The future land use vision considers zoning, design, and community character; transportation, mobility and parking; demographic trends and socioeconomic conditions; economic development; and open space and recreation, sustainability, green infrastructure, and climate resiliency.

Existing Land
Use Overview
and a Future
Land Use Vision

This chapter provides an overview of the existing land use patterns within the Town. It discusses existing development trends, and land use and zoning regulations. It then sets forth a future land use vision and goals, and objectives and implementation strategies which evolved from an extensive public engagement process that included surveys, workshops, and online opportunities for involvement in the planning process.

Several land use objectives emerged through the public engagement process which included an online survey and three public workshops. While the details of any new requirements or restrictions would be established during the development of the local law, the general objectives include:

- Encourage an appropriate balance of residential and non-residential development.
- Update and modernize the Zoning Code to simplify enforcement and remove inconsistencies.
- Develop design guidelines for façades, signage, and streetscapes to preserve, protect, and enhance the unique characteristics of each hamlet.
- Develop measures to increase the efficiency of the code/zoning enforcement process.
- Discourage new warehouse and distribution center land uses in certain zoning districts, particularly near residential areas.
- Develop design guidelines and performance standards to better regulate certain land uses, and to protect open space, viewsheds, historic resources, and community character.
- Strengthen zoning and code protections for natural resources such as wetlands, trees, stormwater, flooding, steep slopes, and ridgelines.



The Manse, home to Domine Samuel Verbryck, Tappan © AKRF During this process the public provided observations and recommendations on the types of land uses that should be encouraged or discouraged in the Town's residential areas, hamlets, and commercial corridors. These included development concerns along the NYS Route 303 corridor, calls for open space preservation, a desire for the Town's hamlets to retain their unique character, and an interest in maintaining the single-family housing typology, the most prominent land use throughout the Town, as the principal means of residential housing. These observations and recommendations resulted in the following land use goals:

- Maintain the Town's community and neighborhood character while balancing the need for growth and development.
- Preserve history, open space, and hamlet center character, while promoting a diversity
  of housing options to ensure members of the community have access to quality housing.
- Promote sustainable development and plan for climate resiliency.
- Preserve the Town's natural resources and increase access to parks and open space.
- Provide a healthy economic environment for community-based businesses that maintain the Town's tax base and provide jobs and services to the Town's residents.

# Land Use Existing Conditions

The Town of Orangetown encompasses three incorporated villages: Nyack, Grand View-on-Hudson, and Piermont. The remaining unincorporated areas include eight hamlets, each with its own character and beloved by its residents as evidenced by public feedback throughout the planning process: Upper Grandview, Sparkill, Palisades, Tappan, Orangeburg, South Nyack, Blauvelt, and Pearl River. On March 31, 2022, the former Village of South Nyack was officially dissolved, becoming a hamlet absorbed by Orangetown. Upon dissolution, land use and zoning regulations related to the former Village became the responsibility of the Town of Orangetown.<sup>1</sup>

The dissolution of South Nyack passed with a vote of 508 in favor, to 292 against, on December 17, 2020. <a href="http://southnyack.ny.gov/project/dissolution/">http://southnyack.ny.gov/project/dissolution/</a> (accessed January 6, 2022).



Henry Kaufmann Campgrounds © AKRF

## **Existing Land Use Patterns and Development Trends**

The existing land uses in the Town of Orangetown fall into nine (9) main categories (see Figure 2-1, Land Use Map and Table 2-1 and Table 2-2):

Single-family residential:

Individual homes on distinct parcels. This is the predominant use of land in the Town, and represents approximately thirty-six (36) percent of land in the Town;

Multi-family residential:

Residential structures containing more than one housing unit;

– Commercial:

Generally, property used for the sale of goods or provision of services, including restaurants and dining establishments, hotels, retail shopping centers, office and professional buildings. Major retail areas include the NYS Route 303 corridor, and the hamlet downtowns of Pearl River (N. Middletown Road & E. Washington Avenue), Sparkill (Main Street), Orangeburg (Orangeburg Road), Blauvelt (E. Erie Street), and Tappan (Washington Street, Main Street, and Oak Tree Road). Major areas of office or professional use include Blue Hill Plaza along the New York-New Jersey state line;

– Institutional:

This category includes land devoted to government functions, libraries, schools, colleges and universities, civic and religious functions, hospitals, police, fire, and EMS facilities. Significant properties within this category include the Rockland Psychiatric Center, Orangetown Town Hall, Dominican University New York, St. Thomas Aquinas College, and schools comprising the South Orangetown Central School District, Pearl River Union Free School District, Nanuet Union Free School District, and Nyack Union Free School District;

— Industrial:

These uses include traditional industrial uses as well as warehousing and distribution facilities. They are located primarily, and somewhat densely, along the NYS Route 303 corridor, but also include the Pfizer campus in northwest Orangetown, and multiple facilities clustered near the New York-New Jersey state line to the east of Lake Tappan;

- Infrastructure:

Property used to provide infrastructure services to the general public;

Recreation & entertainment:

This category includes public and private golf courses, camps, and camping facilities. It includes the Henry Kaufmann Campgrounds, Blue Hill Golf Course, Broadacres Golf Club, Manhattan Woods Golf Club, Rockland Country Club, and Tappan Golf Center;

– Vacant land:

This includes property not in use, in temporary use, or lacking improvement (most often due to land constrained by steep slopes, wetlands, or a lack of roadway access), much of which can be found along Lake Tappan and the Hackensack River which feeds it; and

Public parks& open space:

This category is the second largest land use in the Town, at approximately 17 percent, and includes Blauvelt State Park, Tallman Mountain State Park, Veteran's Memorial Park, Clausland Mountain Park, and various other, smaller parks throughout the Town.

Figure 2-1 **Existing Land Use Map** 





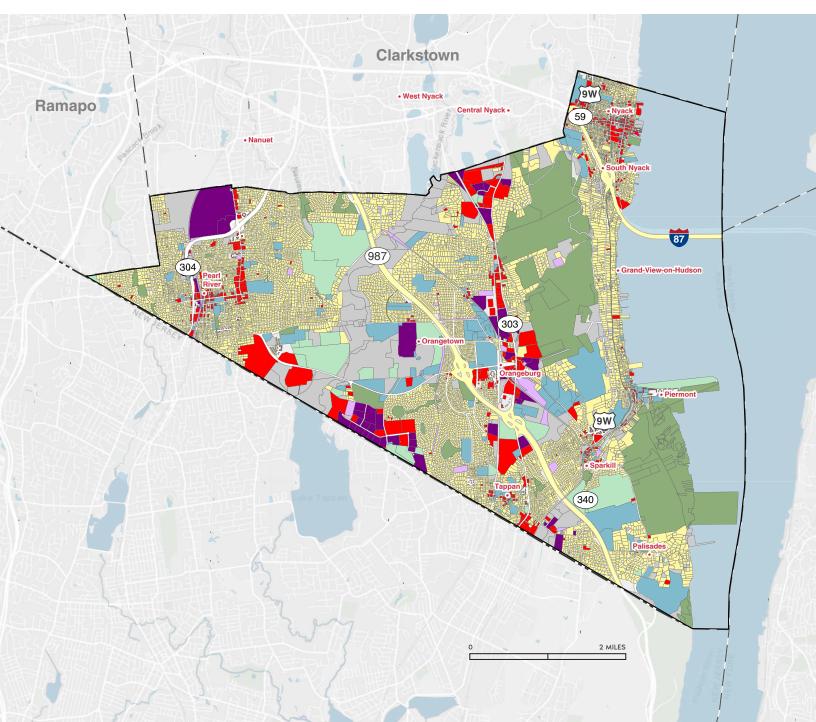


Table 2-1 Land Use in Orangetown 2010

Land Use Type	Acres¹	Percentage
Commercial	764	5.9%
Institutional	1,152	8.9%
Industrial	505	3.9%
Infrastructure	161	1.2%
Recreation and entertainment	854	6.6%
Residential	5,081	39.4%
Vacant land	2,052	15.9%
Public parks and open space	2,320	18.0%
TOTAL	12,889	100%²

Notes: 1 acreage rounded to nearest whole acre; <sup>2</sup> total percentages add up to 99.8% due to rounding. Sources: NYS Tax Parcels Data Set

Table 2-2 Land Use in Orangetown 2020

Land Use Type	Acres¹	Percentage
Commercial	897	6.9%
Institutional	1,216	9.3%
Industrial	622	4.8%
Infrastructure	161	1.2%
Recreation and entertainment	884	6.8%
Residential	5,073	39.0%
Vacant land	1,912	14.7%
Public parks and open space	2,248	17.3%
TOTAL	13,013	100%

Notes: 1 acreage rounded to nearest whole acre; Sources: NYS Tax Parcels Data Set **39%** of Town land

is residential

**92%** of that catagory is single-family

8% multi-family

## **Housing Patterns and Typologies**

**Table 2-2** illustrates the distribution of land uses throughout the Town among the various land use categories. Residential housing is the largest land use in the Town, comprising 39 percent of all Town land. Within that land use category, approximately 92 percent is single-family, the predominant housing typology throughout the Town. Single-family homes are primarily located on .25 to 1 acre lots in traditional suburban development patterns. Housing lot sizes tend to be smaller closer to hamlet centers, ranging from .10 to .50 acres. Eight (8) percent of residential land use in the Town is devoted to multi-family housing, and within that land use category the vast majority exists in the form of two-family residences. The Town has some, though not many, multi-family developments, including apartment complexes, attached condominiums, and senior housing developments.



Housing, Upper Grandview © AKRF

# **Commercial and Industrial Development Patterns**

Commercial development comprises approximately 6.9 percent of land use within the Town, while industrial development comprises 4.8 percent (see **Table 2-2**). Commercial development is concentrated in hamlet centers, described further below, and along major thoroughfares. Commercial, manufacturing, and warehousing facilities are especially prominent along the NYS Route 303 from the hamlet of Tappan north to the edge of the Town.

**6.9%**Town land is commercial development

4.8% industrial development

NYS Route 303, Tappan © AKRF



In 2002 the Town established the Route 303 Overlay Zoning District to increase land use and zoning controls along the corridor in a manner consistent with the Route 303 Plan. Specifically, the legislative intent was to promote pedestrian safety and vehicular safety along the Route 303 corridor, protect and buffer existing residential areas and abutting districts, promote the most desirable use of land and viewsheds, ensure the harmonious and orderly growth of existing neighborhood commercial areas; and establish landscape screening and buffering provisions. Other areas of significant commercial and industrial development are the Pfizer campus in northwest Orangetown, and the commercial and industrial campuses along Corporate Drive and Blaisdell Road, just east of Lake Tappan and near the New York/New Jersey state line.

#### **Hamlets**

#### **Blauvelt**

The hamlet of Blauvelt is located in the north central portion of the Town. It is centered around East Erie Street, West Erie Street, Western Highway North, Western Highway South, and NYS Route 303. The hamlet has a total land area of approximately 4.6 square miles, and a population of 5,548 as of 2020.<sup>2</sup> The hamlet is predominantly composed of residential development and open space (Blauvelt State Park). The limited commercial development in the hamlet is located around the intersection of East Erie Street and NYS Route 303. On the northern and southern edges of the hamlet, along NYS Route 303, there are large commercial and industrial businesses in the form of warehouses and manufacturing facilities.

4 2020 Census.

Blauvelt Public Library © AKRF



#### **Orangeburg**

Orangeburg is located in the center of Orangetown and is home to many of the Town's institutional uses. The hamlet of Orangeburg is centered around the intersection of Western Highway South and Orangeburg Road, and generally extends from the Palisades Interstate Parkway eastward and past NYS Route 303. The hamlet has a total land area of approximately 3.1 square miles, and a population of 4,565 as of 2020.³ There are several major educational facilities in Orangeburg, which include Tappan Zee High School, Dominican University New York, and St. Thomas Aquinas College. Orangetown's Town Hall, the Orangeburg Library, and the Rockland County Sewer Facility are also located in Orangeburg. The hamlet does not have a distinct downtown area, but there is a mix of commercial development along Orangeburg Road and NYS Route 303, including department and grocery stores, and some large manufacturing and warehousing facilities. Residential development is primarily located in the western portion of the hamlet. The eastern portion of the hamlet contains Clausland Mountain Park.

3 2020 Census.

#### **Palisades**

The hamlet of Palisades is located in southeastern Orangetown, and is almost entirely residential. It is relatively isolated from the rest of the Town, bordered to the north by Tallman Mountain State Park, as well as other areas of preserved open space. Single-family homes in Palisades are generally sited on larger lots than in other hamlets, ranging from one-half to two acres. The hamlet has a historic district known as the Closter Road-Oak Tree Road Historic District, which was added to the National Register of Historic Places in 1990.<sup>4</sup> That historic district includes 19 residential, commercial, religious, and civic properties of architectural and historic significance dating from the late 1700s to the early 1900s.

4 https://npgallery.nps.gov/AssetDetail/NRIS/90001014





#### **Pearl River**

The hamlet of Pearl River is the largest hamlet in Orangetown by size and population, with a total land area of approximately 6.8 square miles, and a population of 16,567 as of 2020. The main roads forming the downtown of the hamlet include North Middletown Road, East Central Avenue, and North and South Main Street. Major institutional uses in the hamlet include Pearl River High School and Middle School, and the Pearl River Public Library. The hamlet includes a stop on the New Jersey Transit, Pascack Valley Line. Commercial clusters along East Central Avenue are composed of mostly one- and two-story buildings. Larger commercial buildings, including gyms, drug stores, and grocery stores, are prominent on North Middletown Road. Outside of these areas of commercial concentration, the hamlet is mostly single-family homes on individual lots and tree-lined streets, save for a few larger commercial/industrial developments in the form of the Pfizer campus (in northwest Pearl River) and Blue Hill Plaza (in southeast Pearl River).

5 2020 Census.

#### **South Nyack**

The former Village of South Nyack has a total land area of approximately 1.7 square miles, and a population of 2,699 as of 2020.6 As discussed above, on March 31, 2022, the former Village of South Nyack was officially dissolved and absorbed by Orangetown. South Nyack does not have its own distinct downtown, and is predominantly composed of one- and two-story, single family homes. It is roughly bisected by Interstate 287, and is the western terminus of the Governor Mario M. Cuomo Bridge (Tappan Zee Bridge). South Nyack contains Nyack Middle School and South Nyack village Hall.

6 2020 Census.

South Nyack Village Hall © AKRF



#### **Sparkill**

The hamlet of Sparkill is among the smallest hamlets in Orangetown, with a total land area of approximately 0.5 square miles, and a population of 1,581 as of 2020.<sup>7</sup> There is limited commercial development in the hamlet, and that development is found concentrated along Main Street, where it crosses Depot Square/Union Street. The Joseph B. Clarke Rail-Trail runs close to the hamlet's center.

7 2020 Census.



Sparkill Main Street © AKRF

#### **Tappan**

The hamlet of Tappan has two general areas of commercial development; along Old Tappan Road at Main Street, and more prominently, along NYS Route 303 south of Oak Tree Road to the New York-New Jersey state line. The hamlet has a total land area of 2.8 square miles, and a population of 6,673 as of 2020.8 The majority of the hamlet is residential, although there are a handful of large commercial and industrial properties in the northwest corner of the hamlet. The hamlet includes the 85-acre Tappan Historic District, which was established by Orangetown local law in 1965 (see Chapter 12 of Orangetown Town Code), and subsequently added to the National Register of Historic Places in 1990.9 The Historic District includes the DeWint House, one of the oldest surviving structures in Rockland County, and a temporary headquarters of George Washington during the American Revolution.

<sup>8 2020</sup> Census.

<sup>9</sup> https://npgallery.nps.gov/AssetDetail/NRIS/90000689

#### **Upper Grandview**

Upper Grandview is a small hamlet located in the northern portion of Orangetown, west of the Village of Grand-View-on-Hudson and east of the hamlet of Blauvelt. It is primarily a residential area centered along Route 9W, Tweed Boulevard, and Clausland Mountain Road. Homes in this area are built into the steep hillside and many have sweeping views of the Hudson River.

# Public Parks, Open Space, and Vacant Lands

17% of Town land is public parks and open space

The second largest land use category in the Town is public parks and open space, comprising approximately 17 percent of total land use. Most of that land use is composed of three large parks: Blauvelt State Park and Tallman Mountain State Park, both NYS parks, and Clausland Mountain Park, a Rockland County park. All three of these parks are located in the more steeply sloped region of the Town, generally east of NYS Route 303, and near to the Hudson River (see **Figure 2-2, Steep Slopes Map**). Various smaller parks spread throughout the Town make up much of the remainder of this land use category, and include, among others: Veteran's Memorial Park, Tackamac North and South Park, Pascack Brook Town Park (open space along the Pascack Brook, preserved for fishing, walking, and passive enjoyment), and Clarke Trail (a walking trail located along a former rail line).

15% is vacant or undeveloped property

Vacant or undeveloped properties occupy approximately 15 percent of the Town. Much of those lands are located along Lake Tappan and the Hackensack River, with other, smaller undeveloped lands interspersed throughout the Town.



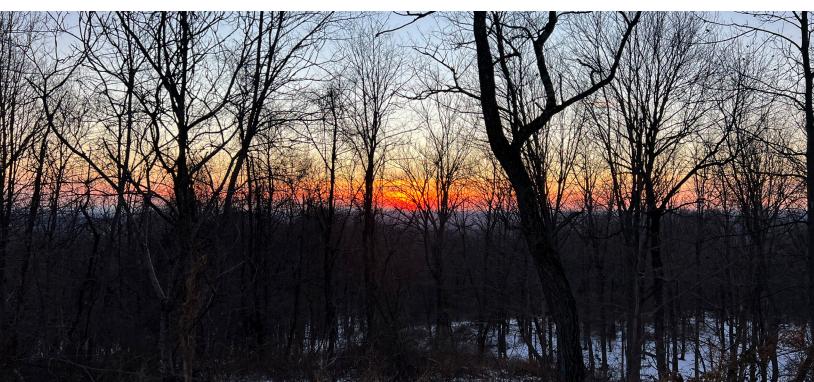


Figure 2-2 **Steep Slopes Map** 

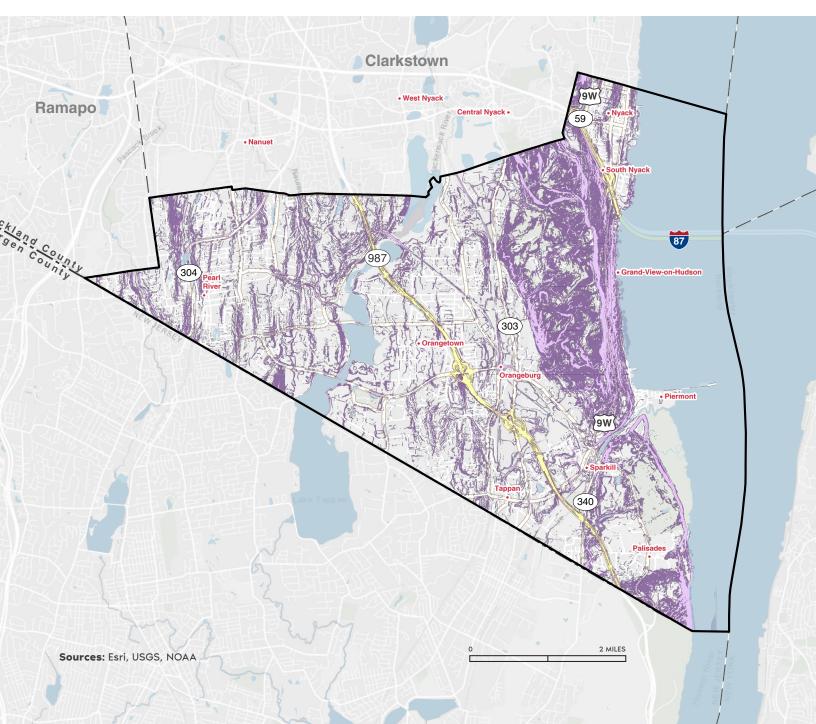
Orangetown

Steep Slopes

15% – 25%

Over 25%







Intersection of Orangeburg Road and Dutch Hill Road, Orangeburg © AKRF

# Existing Land Use Policies

Several existing studies address land use, development, and community improvements in the Town of Orangetown including the Route 303 Sustainability Development Study (2002), the 2003 Orangetown Comprehensive Plan, the 2011 Rockland County Comprehensive Plan, the 2018 Orangetown Bike Study, and the 2018 Pearl River Opportunities Analysis. Each of these plans and studies are summarized below.

# Route 303 Sustainability Development Study (2002)<sup>10</sup>

Released in December 2002, the Route 303 Sustainability Development Study was a joint intergovernmental effort undertaken by The Town of Orangetown, the Orangetown Citizens Advisory Committee, Rockland County, The New York State Department of Transportation, and the New York Metropolitan Transportation Council starting in 1999. The basis of the study was to perform corridor planning from a community perspective, through mutual, cooperative efforts of residents, state and local officials. The study sought to incorporate input from residents, businesses, and landowners along the corridor. Guiding principles of the study included improving quality of life for residents, encouraging sustainable growth and development, and providing effective transportation solutions.

<sup>10</sup> Route 303 Sustainability Development Study, <a href="http://rocklandgov.com/departments/planning/transportation-planning/studies/">http://rocklandgov.com/departments/planning/transportation-planning/studies/</a> (accessed December 22, 2021).

Route 303 Sustainability Development Study (2002) The study revealed serious resident concerns including traffic safety, roadway travel speed, increasing traffic volumes along Route 303 (including truck shipping traffic), and development pressures along the corridor, including uses (such as manufacturing and warehousing facilities) deemed by residents to be incompatible with existing residential developments nearby.

Study participants identified opportunities for open space preservation and landscape enhancement. Longer-term land use issues identified through the study process included the need to limit and control large-scale commercial development along Route 303, and to buffer existing residential areas adjacent to commercial zones. The ultimate objective of the study was to design a path for future improvements that balanced the need for safety, accessibility, mobility, and sustainable development and land use goals. During the course of the study, the creation of the Route 303 Overlay Zoning District was identified as an early recommendation, and was adopted on January 29, 2002, as Article XIII of the Town's Zoning Code.

Despite the adoption of the Route 303 Overlay Zoning District, many Orangetown residents remain concerned with development of manufacturing, warehouse, and distribution center uses along NYS Route 303. These uses, according to the residents, are incompatible with nearby residential neighborhoods, and have caused increases in traffic volume, noise, and pollution in the area, lowering the quality of life and damaging the community character of the area (see **Appendix A**, Community Survey).



Route 303

## **2003 Orangetown Comprehensive Plan**

The Town Board of Orangetown adopted the Town of Orangetown Comprehensive Plan on May 12, 2003.<sup>11</sup> The 2003 Comprehensive Plan was the result of an approximately two-year

<sup>11</sup> Town of Orangetown Comprehensive Plan, <a href="https://www.orangetown.com/document/comprehensive-plan/">https://www.orangetown.com/document/comprehensive-plan/</a> (accessed December 20, 2021).

#### 2003 Orangetown Comprehensive Plan

planning process that included participation of various Town officials, representatives, and departments, in conjunction with public and private groups and the general public.

Land use goals established under the 2003 Comprehensive Plan included: (i) provide additional open space and recreational facilities to serve existing and anticipated population needs, (ii) maintain existing quality of life through separation and buffering of uses considered incompatible with residential neighborhoods, (iii) permit a broad range of housing types, densities, and locations, and encourage higher residential densities in and around the Town's hamlets, (iv) update zoning regulations to help facilitate housing options for a growing senior population; (v) select areas for economic development that avoid conflicts with residential neighborhoods, and (vi) control strip commercial development on Route 303 through more restrictive zoning and lot and bulk revisions.

Ultimately a Town-wide Land Use Plan was developed as part of the Comprehensive Plan, reflecting the goals developed during the comprehensive plan process. The Land Use Plan was comprised of broad categories intended to guide future land use and development throughout the Town. It envisioned fourteen proposed land use categories, based on existing land uses and anticipated land use trends – some of the land uses already existed, while others were proposed as new categories. The categories are summarized in **Table 2-3** below.

Table 2-3 **2003 Land Use Plan Suggested Categories** 

Category	Sub-Category (if applicable)	Details
Residential	Very Low Density Residential	The most environmentally sensitive areas of the Town, including the eastern portion of the Town, adjacent to and within the Clausland Mountain Park. Minimum lot sizes would be 1 to 2 acres, with clustering encouraged to preserve open space. Includes existing R-40 and R-80 Zoning Districts.
	Predominant land use category in the Town. This would continue to be the most prevalent type and intensity of development. Includes existing R-15 and R-22 Zoning Districts.	
	Medium Density Residential	Concentrated mainly near the Town's hamlet centers.
Open Space	Public Park/Open Space	Found throughout the Town at the location of every existing and proposed public park and open space area.
	Private Recreation/ Open Space	Found throughout the Town and including Blue Hill Golf Course, Kaufmann Campgrounds, Manhattan Woods Golf Course.
Development in Open Space Setting		Found throughout some of the Town's larger vacant or underutilized parcels, and designed to accommodate development that maintains significant open space and preservation on the parcel.

Category	Sub-Category (if applicable)	Details					
Commercial Development	Downtown Area	Strictly downtown Pearl River, because that is more like a traditional downtown. Existing CS zoning in Pearl River could be broadened to encourage additional development.					
	Commercial Centers	Located in Orangeburg, Blauvelt, Sparkill, and Tappan. Areas with these designations would be smaller than the Downtown Area designation.					
	Hamlet Centers	Located in Orangeburg, Blauvelt, Sparkill, and Tappan. Areas with these designations would be smaller than the Downtown Area designation.					
	Mixed-Use Corridor	Would be sited along certain portions of NYS Route 303, and would amend existing CS and CC zoning controls with new regulations designed to limit strip development.					
	Commercial/ Mixed-Use Area	Would be sited along certain portions of NYS Route 303, and would amend existing CS and CC zoning controls with new regulations designed to limit strip development.					
	Other Commercial	Other existing commercial properties not captured in the above categories.					
Office/Industrial/Related		Distributed throughout the Town in large blocks, and would include the LI, LO, and LIO Zoning Districts.					
Institutional/Quasi-Public		Includes schools, colleges and universities.					
Public Parkway		Encompasses Palisades Interstate Parkway in its entirety.					

Sources: 2003 Town of Orangetown Comprehensive Plan, pages III-1 to III-3.

# **2011 Rockland County Comprehensive Plan**

The Rockland County Legislature adopted county-wide comprehensive plan, "Rockland Tomorrow: Rockland County Comprehensive Plan," on March 1, 2011.12 The land use and sustainability goals established under the Rockland County Comprehensive Plan included: (i) conserve open space, (ii) promote conservation (cluster) subdivision design, (iii) reinforce existing county centers through investment in infrastructure and housing, (iv) foster and maintain well-designed business and industrial corridors and clusters, and (v) encourage smart growth while preserving quality-of-life and existing community and neighborhood character.













ROCKLAND TOMORROW: Rockland County Comprehensive Plan

Adopted March 1, 2011

Rockland Tomorrow: Rockland County
Comprehensive Plan

<sup>12</sup> Rockland County Comprehensive Plan, <a href="http://rock-landgov.com/departments/planning/comprehensive-plan/">http://rock-landgov.com/departments/planning/comprehensive-plan/</a> (accessed December 20, 2021).

#### 2011 Rockland County Comprehensive Plan

To achieve the Plan's land use goals, it outlined a three-party strategy to guide land use patterns: "Conservation, Centers, and Corridors and Clusters." That strategy recognized the overall public appreciation of Rockland County's semi-rural character, and advocated for preservation of those qualities by conserving land areas existing outside commercial centers and corridors. The strategy suggested encouraging a mix of uses in existing municipal centers, including multi-family residential housing, finding that concentrating limited growth and development within existing centers will protect against out-of-scale development elsewhere in the County. Finally, the strategy did not encourage expanding existing commercial corridors and clusters, but recommended preservation, redevelopment, and enhancement of existing ones.



Joseph B Clarke Rail Trail, Sparkill © AKRF

# **2018 Orangetown Bike Study**

In August 2017, the Town of Orangetown engaged Parks & Trails New York, an organization that develops trails and plans bike and pedestrian networks, to conduct a bike study of the Town. The final plan, "Orangetown Bike Study: A Comprehensive Plan for a Safer and More Welcoming Cycling Environment on Orangetown's Roads and Trails" (Bike Study), was presented to the Town Board in June 2018. The primary goal of the Bike Study was to create a community vision for the local cycling network, with a focus on connecting residents with local business districts and community facilities including schools, libraries, and parks.

While the Bike Study did not make recommendations specific to land use patterns in Orangetown, many of the Bike Study's implementation steps to create a safer and more accessible Orangetown implicate land use patterns, namely (i) creating neighborhood bikeways, (ii) establishing a Town-wide complete streets policy, (iii) strengthening east-west connections across the Town, and (iv) improving the local roadway network.



Blauvelt State Park © AKRF

<sup>13</sup> Orangetown Bike Study, <a href="https://www.orangetown.com/document/orangetown-bike-study-final-report/">https://www.orangetown.com/document/orangetown-bike-study-final-report/</a> (accessed December 20, 2021).

# **2018 Pearl River TOD Opportunities Analysis**

In 2018, the Pace Law School's Land Use Law Center, together with Kevin Dwarka LLC, submitted the "Pearl River TOD Opportunities Analysis" to the Town of Orangetown. The purpose of the study was to establish a downtown revitalization strategy for the hamlet of Pearl River. Concerning land use, specifically housing, residents had mixed views on how future development of Pearl River's downtown should proceed. While some residents were concerned that encouraging development would alter downtown character, others expressed a desire for a greater variety of housing types, including condos, townhomes, and other dwelling forms. Ultimately, the analysis concluded that Pearl River was well positioned physically and economically for downtown infill development, especially in an around its train station, and the report's land use assessment found that the existing urban form around the train station could accommodate a greater mix of uses, higher intensity of land use, and taller buildings.





<sup>14</sup> Pearl River TOD Opportunities Analysis, <a href="https://www.orangetown.com/wp-content/uploads/KDLLC-LULC-2018-Nov-23-PRTOD-OA.pdf">https://www.orangetown.com/wp-content/uploads/KDLLC-LULC-2018-Nov-23-PRTOD-OA.pdf</a> (accessed December 20, 2021).



Tappan © AKRF

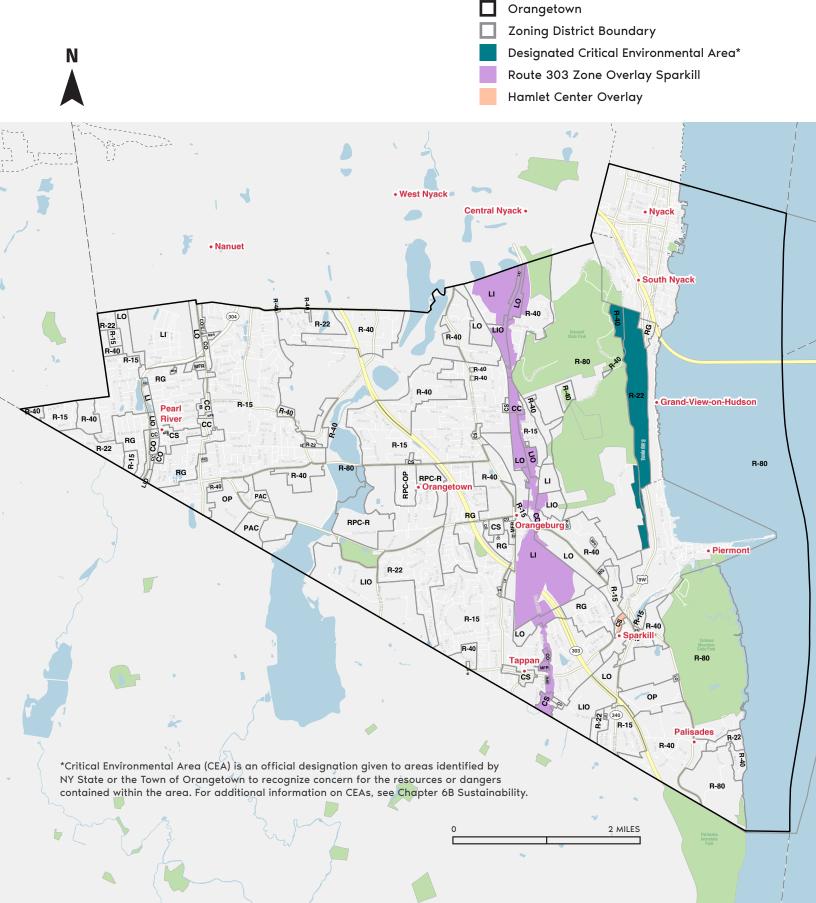
# Zoning Existing Conditions

Land use ordinances, which include zoning and subdivision codes, procedures for reviewing development applications through site plan review, and local laws for stormwater management, historic preservation, and natural resource protection, form a community's toolbox for guiding growth and development.

These local land use regulations should reflect the vision and goals established in the comprehensive plan and guide development in a manner that respects the existing community character and the community's vision for its future. Building on the comprehensive plan, the Zoning Code should clearly establish what types of uses are permitted in compatible combinations. Zoning districts should be used to separate incompatible uses and encourage mixes of compatible uses. Performance standards and other metrics can be used to further guide development in an appropriate manner. Orangetown's base zoning regulations were adopted by the Town Board in 1969, and have been amended extensively since that time (see Town Code, Part I, Chapter 43 (§43-1.0 to §43-17.13)). The Town's current zoning map is presented in **Figure 2-3**.

Figure 2-3

# **Existing Zoning Map**



# **Existing Zoning Regulations**

The Town of Orangetown's zoning regulations can be found in Chapter 43, Zoning, of the Town Code. There are sixteen (16) different districts in the Town.

#### **Residential Zoning Districts:**

 R-80 (Very Low-Density Residence) District Primarily a single-family detached dwelling unit with a minimum lot area of 80,000 square feet (just under 2 acres). Other permitted principal uses include farms, places of worship, government buildings and facilities (e.g., libraries, public parks and playgrounds, schools). Camps, museums, and nursery schools are allowed by Conditional Use Permit from the Planning Board. Agency group and boarding homes, and radio and television towers are allowed by Special Permit from the Town Board, and family day-care and group-family daycare homes, nursing homes, and hospitals and sanitoriums primarily for special medical care are allowed by Special Permit from the Zoning Board.

 R-40 (Low-Density Residence) District Primarily a single-family detached dwelling unit with a minimum lot area of 40,000 square feet (just under 1 acre). Other permitted principal uses are generally the same as in the R-80 District. And, similar to the R-80 District, there are a number of uses permitted as Conditional Use Permits from the Planning Board or Special Permit from the Town Board or Zoning Board.

 R-22 (Medium-Density Residence)
 District The same principal uses are permitted in this district as in R-80, with a decrease in the minimum lot area to 22,500 square feet per residence.

 R-15 (Medium-Density Residence)
 District The same principal uses are permitted in this district as in R-40, with a decrease in the minimum lot area to 15,000 square feet per residence.

RG (General Residence) District

The same principal uses are permitted in this district as in R-40, with a decrease in the minimum lot area to 10,000 square feet per single-family detached dwelling.



Residential Development, Pearl River © AKRF

#### MFR (Multifamily Residence) District

District—Dwelling units of all types, except single-family and 2-family detached residences, with a minimum lot area of 40,000 square feet.

#### **Non-Residential Zoning Districts:**

Like residential zoning districts, non-residential districts include bulk regulations, which provide dimensional standards for buildings and lots in a given zone. The *floor area ratio*, or FAR, is a type of bulk regulation used in the Town's non-residential districts.

Each non-residential district specifies a maximum FAR within that district. The FAR considers the total floor area of the building in proportion to the area of the lot, both generally in square feet.

To calculate the maximum allowable floor area for a building, multiply the district FAR and the area of the lot (in square feet).

For example, in the CS (Community Shopping District), the maximum FAR is 1.0. For a given lot that is 10,000 square feet, the maximum allowable floor area for a building would be 10,000 square feet (1.0  $\times$  10,000sf). In turn, that square footage can be allocated over various floor configurations, including:

One single floor that is 10,000sf, covering 100% of the lot; or Two floors that are each 5,000 sf, covering 50% of the lot, etc.

Each district also specifies other dimensional standards, such as minimum lot size, setbacks, and height limits, which would be in addition to the FAR. The below descriptions include each district's FAR and minimum lot size. Additional dimensional requirements are available in the Table of Bulk Regulations in Chapter 43 of the Town Code.

The Town's non-residential zoning districts are as follows:

#### LO (Laboratory-Office District)

(maximum FAR of 0.40, minimum lot area of 2 acres). The LO District is designed for institutional and office type uses. Permitted principal uses include business and professional offices, fire, police, and ambulance stations, schools of general instruction, executive conference centers, and government offices and office buildings.

#### LIO (Light Industrial-Office District)

(maximum FAR of 0.40, minimum lot area of 2 acres). The LIO District is designed for light industrial and office types uses. It permits the same principal uses as the LO District (except that it does not permit executive conference centers). In addition, it permits airports and heliports, undertakers, and sand pits and gravel pits as special permit uses, and public utility substations and pump stations, light manufacturing uses, and automobile sales and service agencies as conditional use permit uses.

#### OP (Office-Park District)

(maximum FAR of 0.40). The OP District is designed for office park uses. It permits the same principal uses as in the LIO District, plus hotels and conference centers.

 CS (Community Shopping District) (maximum FAR of 1.0, minimum lot area of 2,500 square feet). The CS District supports neighborhood commercial, retail, and institutional uses. It is generally mapped in the hamlet areas.

# CC (Retail-Commerce District)

(maximum FAR of 0.30, minimum lot area of 2,500 square feet). The CC District is designed for retail and commerce. It permits the same principal uses as the CS District, plus trade schools and theatres.

 CO (Commercial-Office District) (maximum FAR of 0.20, minimum lot area of 30,000 square feet per lot). Uses in the CO District include business, medical, and other professional offices, public buildings (e.g., libraries, museums), banks, and neighborhood and community centers.

LI (Light Industrial District)

(maximum FAR of 0.50, minimum lot area of 2 acres per lot). Uses in the LI District include theaters, commercial recreation establishments, manufacturing uses, warehouses, and business and professional offices.

OZ (Route 303Overlay Zone)

(variable dimensional regulations per §§13.1 to 13.10). The OZ Zoning District was established in 2002 to, among other things, improve pedestrian safety along the NYS Route 303 corridor, limit truck traffic, and protect and buffer existing residential areas and the viewshed of the Palisades.

 RPC-R (Rockland Psychiatric Center -Recreation Sparkill Hamlet Center Overlay District (maximum FAR 0.4, minimum lot area of 5 acres). This Zoning District designation is specific to the site of the Rockland Psychiatric Center, and allows for public and not-for-profit active recreation uses (e.g., playgrounds, athletic fields, swimming facilities, public recreation centers), as well as commercial recreation uses.

 RPC-OP (Rockland Psychiatric Center Office Park) (minimum lot area of 10 acres). This Zoning District designation is specific to the site of the Rockland Psychiatric Center, and allows for data centers, business offices, and executive conference/lecture centers.



Rockland Psychiatric Center © AKRF

**Table 2-5** lists the permitted principal, special permit, and conditional use permit uses currently allowed in non-residential Zoning Districts.

#### Table 2-5

# Permitted Principal, Special Permit, and Conditional **Use Permit Uses Currently Allowed**

**P** – Permitted as of right **SP** – Special Permit

**C** - Conditional

Land Use	LO	LIO	ОР	cs	СС	со	LI	RPC-R	RPC-OP
adult uses							SP		
airports and heliports	SP	SP							
all manufacturing uses except those prohibited under §4.4 of Zoning Code							Р		
auditoriums and drive-in theatres					SP				
automobile sales and service agencies		С					Р		
banks				Р	Р	Р			
bars				С					
business/professional office	Р	Р	Р	Р	Р	Р	Р		Р
car washes							С		
churches and similar places of worship				Р	Р	Р			
commercial dog kennels and animal hospitals							Р		
commercial recreation (some exclusions)								Р	
commercial recreation such as bowling, billiards, driving ranges							Р		
data center									Р
executive conference lecture facilities	Р								Р
fast-food restaurants					С	С			
fire, police, community-owned ambulance stations	Р	Р	Р	Р	Р	Р	Р		
gas stations, night clubs					С		С		
government offices and office buildings	Р	Р	Р	Р	Р	Р			
hospitals						Р			
hotels and motels				С	С	С			
hotels/conference centers			Р						
jewelry stores and art shops				Р	Р	Р			
light manufacturing uses		С							
medical offices in existing residential structures					С				

Land Use	LO	LIO	ОР	cs	СС	со	LI	RPC-R	RPC-OP
mixed-use developments 10+ acres (and other conditions)							SP		
municipal parking lots and similar public buildings and govern- ment uses	Р	Р	Р	Р	Р				
personal service stores				Р	Р				
pet shops				SP	Р				
public and not-for-profit recreation								Р	
public utility substations and pump stations		С	С	С	С	С			
research, experiment, and testing labs	Р	Р	Р						
restaurants, except fast-food				Р	Р	С			
retail drug, variety, food, auto supply, tobacco stores, clothing and department stores, physical fitness, personal service stores				Р	Р				
sand pits and gravel pits		SP	SP						
schools of general instruction	Р	Р	Р	Р	Р				
schools of religious instruction				Р	Р				
schools of special instruction				С	Р				
senior citizen housing				SP	SP	SP			
theatres (not drive-ins)				SP	SP	SP	Р		
undertakers		SP	SP	SP	Р	SP			
wholesale sales or storage, and warehouses							Р		

Notes: Information compiled in this Table 2-5 can be found in the Orangetown Zoning Code, Attachments 1-12a.

#### **Performance Standards**

Chapter 43, Section 4.1 of the Town's Zoning Code sets out performance standards. This section of the Zoning Code was amended in 1988, 2018, and 2021. The performance standards are applicable to all nonresidential uses (§4.11), and require that "no land or building shall be used or occupied for a nonresidential use in any manner as to create any dangerous, injurious, noxious or otherwise objectionable fire, explosive, radioactive or other hazard; noise or vibration; smoke, dust, odor or other form of air pollution; electrical or other disturbance; glare; [or] liquid or solid refuse or wastes." These are all considered to be "dangerous or objectionable elements." All uses subject to performance standards must conform to restrictions set out in §§ 4.16-4.18, which establish methods to measure dangerous or objectionable elements. Continued compliance with these performance standards is required of every nonresidential use (Town Code §4.13).

#### Performance Standards

The Town's Industrial Use Committee (IUC) is responsible for reviewing applications seeking a determination of conformity with these performance standards, prior to the granting of a building permit. The IUC is made up of five (5) members: Commissioner of the Town's Department of Environmental Management and Engineering (DEME), the Town's Chief Fire Safety Inspector, the Director of the Town's Office of Building, Zoning and Planning Administration and Enforcement, the Town's Public Health Engineer, and the Deputy Commissioner of DEME.

## **Special Permit Uses**

As identified in **Table 2-5** (existing zoning district use table, above), uses in certain districts are only permitted when a special permit is granted (by the Town Board or Zoning Board of Appeals). Chapter 43, Sections 4.32(A)-(Q) establish additional requirements and conditions for the granting of those special permits (in addition to baseline requirements for development in those Zoning Districts), including but not limited to hours of operation, lot areas, lot frontages, distances to lot lines, access roads, fencing, screening, landscaping, density, parking, and buffer areas.

#### **Prohibited Uses**

Sections 4.41 to 4.47 of the Zoning Code establish certain uses which are prohibited in the Town. Those prohibited uses include the following:

- Certain manufacturing uses, including those involving primary production of certain raw materials (e.g., asphalt, cement), chemicals (e.g., ammonia, chlorine, nitrates, resins), petroleum products, fertilizers, paint, explosives, and rubber;
- Certain manufacturing processes, including reduction and refining of metals, refining of petroleum products, and processing of wood pulp and fiber;
- · Operations involving stockyards and slaughterhouses, grain elevators and slag piles;
- Storage of explosives;
- Dumps, junkyards, sewage treatment plants, incinerators, and sanitary landfill operations (except those municipally owned and operated);
- · Quarries and stone crushers; and
- Trailer camps and summer colonies.



Palisades Free Library © AKRF

# Land Development and Environmental Regulations

In addition to zoning regulations, the Town Code offers protection of historic resources, quality of life, natural resources and environmentally sensitive areas through supplemental land development and environmental regulations.

The existing regulations are described below.

# **Land Development Regulations**

Regulations on land development, Chapter 21 of the Town's Code, were adopted in 1967. The chapter restrains land clearing operations, requiring a plan submitted to the Planning Board for any clearing, grading, filling, excavation, or topsoil stripping, save for parcels already containing existing one or two-family residents and certain sizes and densities (Town Code § 21-1). The Planning Board is also authorized to require a conservation easement on certain properties seeking Planning Board approval under Chapter 21.

#### **Historic Preservation**

The Town's Code also contains provisions protecting historic roads (see Town Code §§ 19-1 to 19-8, "Historic Road Preservation"). Adopted in 1993, the purpose of that chapter is to protect, preserve and maintain roads in Orangetown that qualify as historic roads (as defined under the Town Code), in order to maintain the Town's rich historical, architectural, aesthetic and cultural resources. The Town Code also protects historic areas (see Town Code §§ 12-1 to 12-8, "Historic Areas"). The areas protected are within the hamlets of Tappan and Palisades, and are protected through restrictions on use, development, and renovations/alterations.



Historic District, Tappan © AKRF

# **Affordable Housing**

Chapter 19B of the Town's Code was adopted in 1995 and concerns affordable housing. Section 19B-3 of the Town Code authorized the Town Board to purchase the Tappan Military Housing (single-family housing located at the Tappan Military site in the Hamlet of Tappan) and make it available to former members of the military who once resided in the housing, members of volunteer services of the Town, and first-time home buyers.

Existing facilities include Cortwood Village, a garden-style apartment complex that offers affordable housing for seniors aged 55 and over. Built in 1990 and managed by the Orangetown Housing Authority Board, Cortwood Village provides 95 one-bedroom units, a laundry room, and a community room.

#### **Noise**

Chapter 22 of the Town Code, adopted in 1981, concerns noise, and is designed to limit the creation of excessive, unnecessary or unusually loud noises within Orangetown. Town Code § 22-2 prohibits "unnecessary noise," which is defined as "any excessive or unusually loud sound or any sound which either annoys, disturbs, injuries or endangers the comfort, repose, health, peace or safety of a reasonable person." The Town Police Department and the Town Office of Building, Zoning, Planning, Administration and Enforcement are empowered to enforce this provision of the Town Code § 22-5.1).



Tappan Lake © AKRF



Flooding Signage
© AKRF

## Stormwater Management

Chapter 30C of the Town Code concerns stormwater management practices. These are intended to protect the health, safety, and general welfare of Town residents by regulating non-stormwater discharges into the municipal storm sewer system (MS4) to the maximum extent practicable as required by law. This chapter includes methods for controlling the introduction of pollutants into the MS4 to comply with the Town's State Pollutant Discharge Elimination System (SPDES) permit. The ordinance prohibits the discharge of any materials other than stormwater into the storm sewer system, save for certain exceptions outlined in Town Code § 30C-5 (such as landscape irrigation and lawn watering, potable water sources, pumped groundwater). A violator may be required to undertake best management practices to control illicit discharges and activities (Town Code § 30C-8). The Town's Stormwater Management Officer (SMO) is responsible for administering, implementing, and enforcing these protections. The SMO is empowered to, if necessary, suspend a violator's connection to the storm sewer system.

# Sediment and Erosion Control and Stormwater Management

Chapter 30D of the Town Code, concerning sediment and erosion control and stormwater management, was an environmental protection adopted by the Town Board in 2007. Per the ordinance's findings of fact (Town Code § 30D-1), the Town adopted the ordinance after determining that increases in impervious land coverage, stormwater runoff, clearing and grading, and improper design and construction of stormwater management practices was negatively impacting the Town. The ordinance requires that no application for approval of a land development activity shall be approved until the appropriate board has received a stormwater pollution prevention plan (SWPPP), and established the required elements of an SWPPP (Town Code § 30D-8). Land development activities are subject to performance and design criteria which are to be guided by technical standards such as the New York State Stormwater Management Design Manual, and New York State Standards and Specifications for Erosion and Sediment Control. If land development is not in conformity with Town Code requirements, the Town's Stormwater Management Officer may issue a stop-work order and assess penalties in the form of fines (Town Code § 30D-19(B)).



Tallman Mountain State Park © AKRF



Signage, Palisades Interstate Parkway © AKRF

# Signs

Chapter 31D of the Town Code, the Sign Law of the Town of Orangetown, was adopted by the Town Board in 2021. Its purpose is to establish a framework for signage that protects the safety and welfare of the public by maintaining an attractive appearance in the community and ensure signs are compatible with their surroundings and consistent with objectives of proper design and zoning considerations. The chapter is administered by the Town's Building Inspector, who is responsible for inspection, investigation, and ensuring compliance of signs with the chapter.

# **Trees and Shrubbery**

Town Code Chapter 35, the Town's tree preservation ordinance, was adopted in 1964 and last amended in 1999. The Code requires a written permit from the Shade Tree Commission for tree planting or removal along public highways, parks, parkways, or public places (see Town Code § 35-1(A)-(E)). It also requires the placement of certain protections around trees when work is performed in the same public areas, but the Code does not apply to work done by the Sewer Department or Highway Department of the Town. The Code does not exempt invasive species from protections, and it does not regulate the removal of trees on private property.

#### **Watercourse Diversion and Pollution**

Chapter 41 of the Town Code, concerning watercourse diversion and pollution, was adopted in 1970 and last amended in 1976. The Code prevents anyone from diverting any watercourse within the Town (outside the limits of any incorporated village) without first obtaining a permit from the Town Board. The Code establishes water quality standards to protect streams from pollution, including Sparkill Creek (Town Code § 41-10), and requires a permit from the Department of Public Works for the discharge of any liquid into a stream, drain, or watercourse, other than from a one- or two-family dwelling (Town Code § 41-11). This chapter does not contain supplemental regulations for the protection of freshwater wetlands.



Palisades Community Center © AKRF

# Community Views on Land Use and Zoning

### **Community Survey**

As part of the public engagement process, a digital community survey including multiple choice questions and short descriptive inputs was available for public response from September 29 to November 3, 2021 (Community Survey) (see **Appendix A**, for a full report of the findings from the Community Survey). The survey included questions about existing and future conditions in the Town including land use, transportation, open space, and sustainability. The results of that survey offered insight into how residents view land use regulations, patterns, and issues throughout the Town.

The majority of survey respondents (72 percent) expressed concerns regarding recent development patterns in the Town (see **Appendix A**). Residents reported the following concerns:

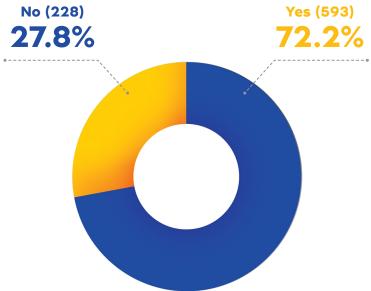
- The Town is experiencing overdevelopment;
- The Town should preserve more open space;

### Community Survey

- The Town should enhance efforts to mitigate the environmental impact of development;
- Inconsistency of development approvals with the 2003 Comprehensive Plan;
- High-density and out of character development within the Town's hamlets;
- Availability of water, sanitary sewer, and stormwater infrastructure to support current development patterns and trends; and
- Noise, pollution, traffic, and pedestrian safety concerns related to the development of warehouse and distribution centers along NYS Route 303.

#### **Question 11**

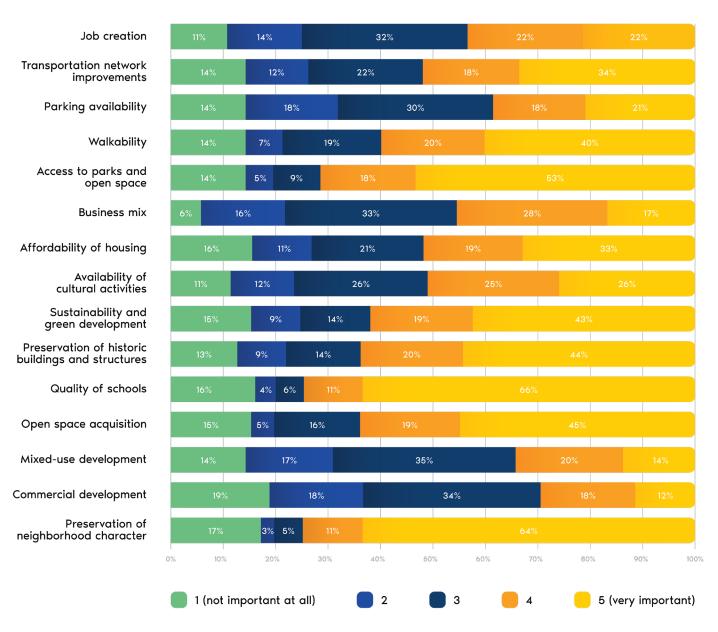
Do you have any concerns about recent development patterns in the Town?



Metropolitan Urban Design (MUD) Workshop

The top land use areas which Community Survey respondents indiciated as important to future development were (i) preservation of neighborhood character, (ii) access to parks and open spaces, (iii) open space acquisition, and (iv) preservation of historic buildings and structures (see **Appendix A**). Respondents were not supportive of mixed use development or commercial development.

# Question 12 Please rate how important the following factors are to you in terms of future development in the Town of Orangetown from 5 (very important) to 1 (not important at all):



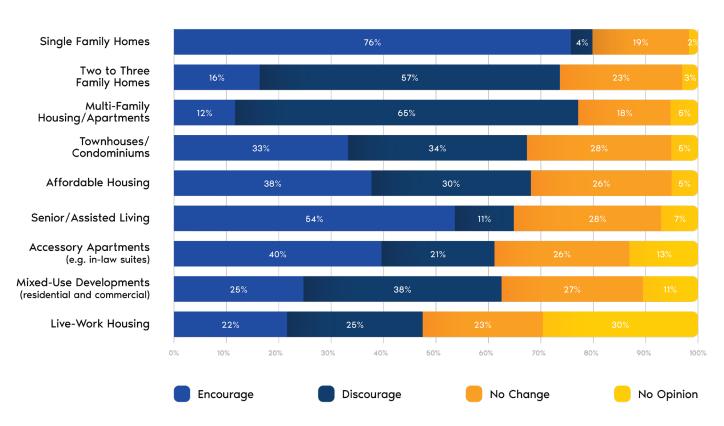
Metropolitan Urban Design (MUD) Workshop

Among the top residential land uses encouraged by respondents were (i) single-family homes (76 percent encouraged), (ii) senior/assisted living (54 percent encouraged), and (iii) accessory apartments (40 percent encouraged). The top reidential land uses discouraged by residents were (i) multi-family housing/apartments (65 percent discouraged), (ii) two or

three family homes (57 percent discouraged), and (iii) mixed-use developments (38 percent discouraged) (see **Appendix A**).

#### **Question 13**

Thinking about the Town as a whole, for each of the residential land uses listed below, please indicate whether you think the use should be encouraged, discouraged, no change, or no opinion.



Metropolitan Urban Design (MUD) Workshop

Concerning commercial land use, and expansion of uses that offer public amenities in the Town, respondents would like to see restaurant/food service, elder care, renewable energy production, and theatre/performing arts uses encouraged. The most strongly discouraged uses were outdoor storage facilities, light industrial/manufacturing, and automobile dealerships.

Residents were especially concerned with the proliferation of manufacturing and ware-housing facilities being developed along the NYS Route 303 corridor. These concerns were raised during public workshops and throughout the open-ended responses to the Community Survey. Residents identified the new warehouses and manufacturing facilities

as contributing to noise and pollution in their neighborhoods, taxing on local infrastructure, inducing increased truck traffic, and incompatible with nearby residential land uses.

The Community Survey also asked respondents to indicate their agreement or disagreement with various statements concerning the Town's Zoning Code, enforcement of Zoning Code provisions, and conflicts between different land uses in the Town. When asked about the effectiveness of zoning and local laws in regulating development in the Town, more residents (43 percent) disagreed than agreed (35 percent). The disparity in opinions was even more pronounced concerning enforcement of existing zoning regulations – only 24 percent of respondents agreed while 46 percent disagreed. Respondents also felt strongly than conflicts between commercial and residential neighbors, and institutional and residential neighbors, are a significant problem (see **Appendix A**).

These same opinions were echoed during the Public Workshop on December 6, 2021. Multiple residents expressed dissatisfaction with the level of zoning enforcement in their neighborhoods, especially in the hamlets. Residents living in neighborhoods near NYS Route 303 expressed concerns that variances were being granted too frequently, without sufficient consideration of public input, and without regard to the incompatibility between existing residential use, and construction of certain types of warehouses and manufacturing facilities, and their associated impacts on vehicle and semi-truck traffic in the area.

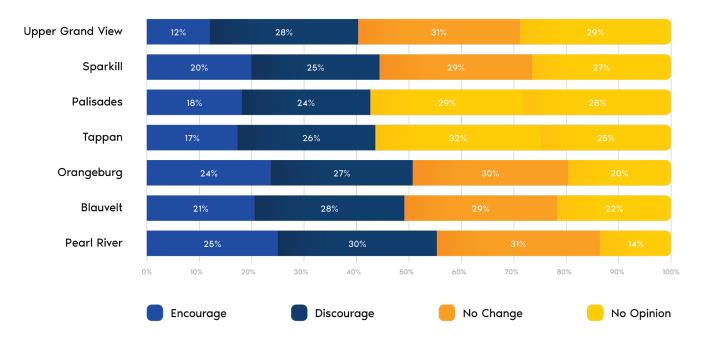
The Community Survey also solicited feedback on current land use and development trends within the hamlets. The general sentiment of residents of Orangetown's hamlets is that the level of development, both commercial and residential, should not be changed. For each hamlet, the greatest percentage of residents indicated no need for change to current development levels. Following no change, for each of the hamlets, respondents discourging residential development outnumbered those encouraging such development (e.g., in Tappan 32 percent recommend no change, 17 percent encourage residential development, and 26 percent discourage it; in Pearl River, 31 percent recommend no change, 25 percent encourage residential development, and 30 percent discourage it). In addition, survey respondents discouring commercial development outnumbered those encouraging such development (and outnumbered those desiring no change) for every hamlet.

Industrial Park, NYS Route 303 © AKRF



#### **Question 16**

Thinking about each of the following Hamlet areas, please indicate whether you think residential development should be encouraged, discouraged, no change, or no opinion.



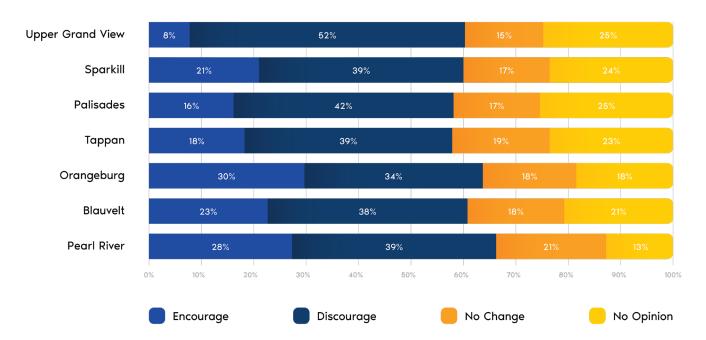
Metropolitan Urban Design (MUD) Workshop

Residential Housing, Pearl River © AKRF



#### **Question 17**

Thinking about each of the following Hamlet areas, please indicate whether you think commercial development should be encouraged, discouraged, no change, or no opinion.



Metropolitan Urban Design (MUD) Workshop

During public workshops, residents expressed similar concerns regarding development in the hamlets, namely that allowing residential development, especially multi-family construction, could disrupt the existing fabric of the hamlet communities, and would bring inappropriate density to hamlet centers. However, there were also several residents who note the lack of available housing options for young adults—in particular people who grew up in Orangetown and desired to start their career or family in Town. There was a noted lack of housing options for people looking to enter the housing market, and for those looking to downsize. These sentiments were considered when establishing the land use goals, objectives, and strategies presented at the end of this chapter.

# **Town Officials Survey**

The Comprehensive Plan Committee (CPC) conducted a survey of town officials and staff from September 28 to November 3, 2021 (Town Officials Survey). During that time, the survey received 70 responses from town officials and staff across nineteen (19) different boards and departments.

Regarding current development patterns in the Town, 58.6 percent of respondents expressed concerns. The concerns fell into four main categories, namely (i) transportation,

(ii) housing/development, (iii) environmental, and (iv) infrastructure. Representative concerns included, among others:

- Increases in car and truck traffic throughout the Town, and increasing 'through traffic' in residential neighborhoods and hamlets;
- Significant warehousing and factory development near residential areas;
- Construction in environmentally sensitive areas, and a need to increase vegetated buffers and natural landscaping between developments;
- Insufficient infrastructure (e.g., sewers and flood preventions systems) for the current pace of development; and
- Insufficient multifamily housing stock for young adults and seniors seeking to downsize, with public pushback when zoning changes to facilitate these uses are suggested.



Historic Home, Tappan © AKRF

# Vision, Goals, and Objectives

The goal of the future land use plan for Orangetown is to ensure that residential and commercial growth is sustainable and achieves the community's vision and goals.

This 2022 Comprehensive Plan prioritizes protection of environmentally sensitive areas, protection of warehouse and industrial overdevelopment, especially near residential areas, preservation of open space, and contextual infill development where appropriate.

#### **Future Land Use**

The future land use map reflects the Comprehensive Plan goal of maintaining the Town's community and neighborhood character while balancing the need for growth and development. The Future Land Use Map echoes the historical growth patterns of the Town of Orangetown, which large swaths of single-family residential neighborhoods and retail/ commercial uses centered around the hamlets and major roadways like Route 303.

Central to the development of the Future Land Use Map was the consideration of Goal #2, to preserve history, open space, and hamlet center character, while promoting a diversity of housing options in appropriate neighborhoods to ensure members of the community have access to quality housing. The Future Land Use Map identifies a few new mixed-use areas, where a diversity of housing types (e.g. townhomes, duplexes, mixed-use buildings, and apartment building style condominiums) could be accommodated to meet the needs of first-time home buyers/renters and downsizing seniors looking to stay within the community.

Figure 2-4, Future Land Use Map.

# Proposed Implementation Strategies

Analysis of the existing Zoning Code and land use regulations revealed several issues relating to consistency, readability, and ease of enforcement. These issues were echoed by the Town's staff, land use board members, and the public during the public engagement process. This memorandum identifies several areas where the zoning code and land use regulations can be updated.

Figure 2-4
Future Land Use Map



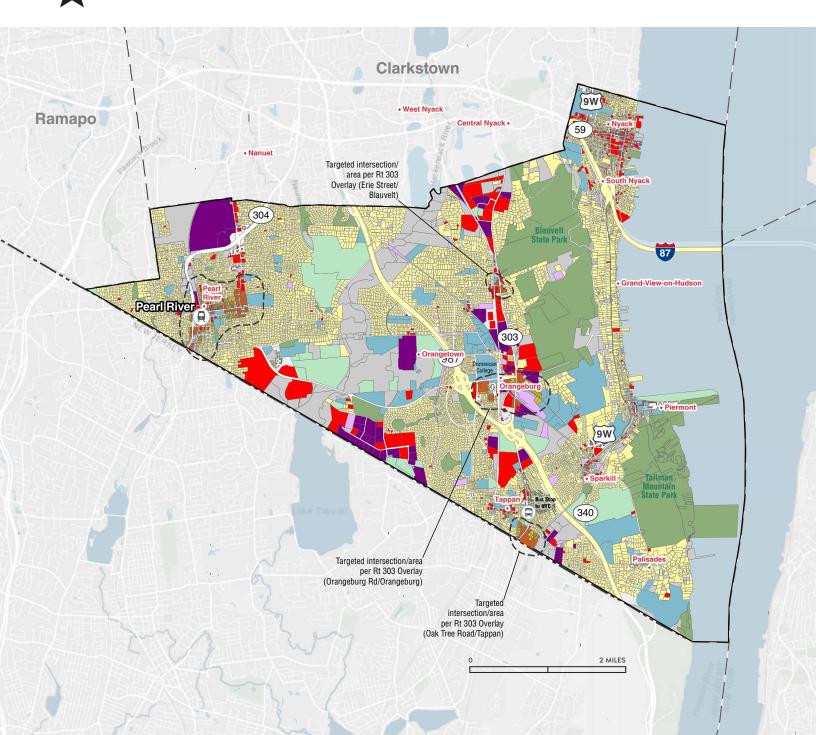
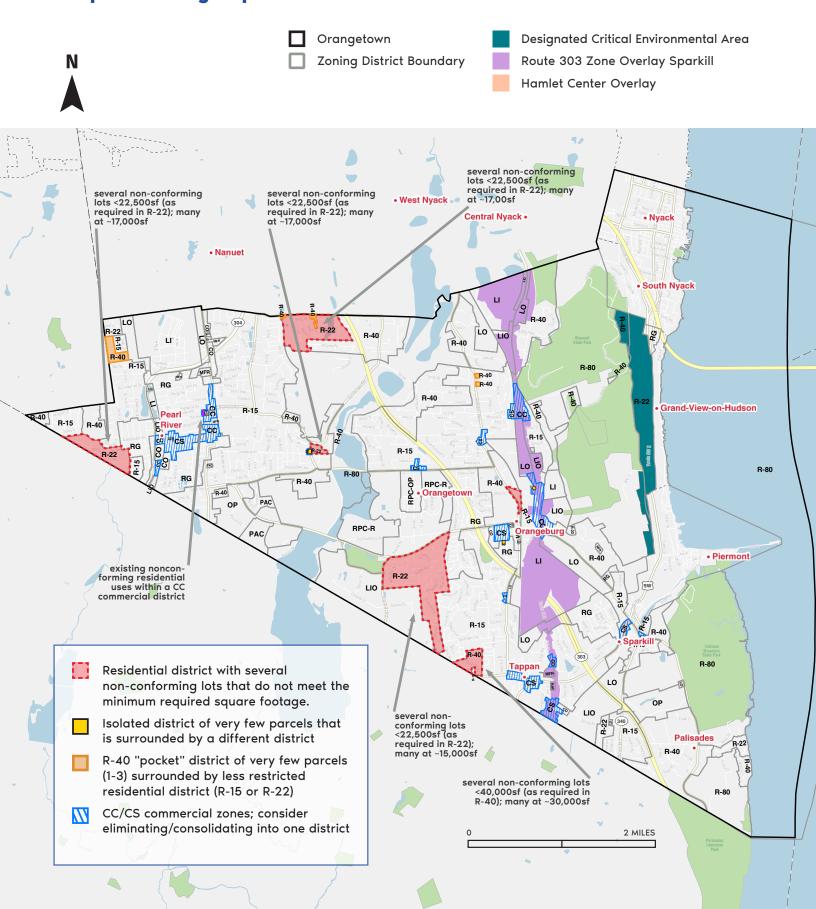


Figure 2-5
Proposed Zoning Map



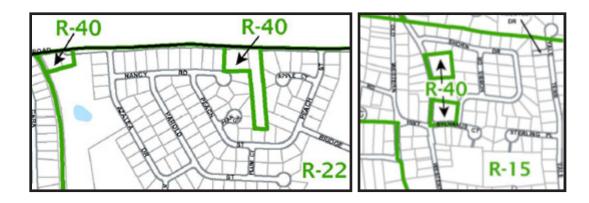
- The existing Zoning Code is cumbersome in the way it is setup, making it confusing to interpret and difficult to implement. Suggested improvements for consideration:
  - Eliminate and consolidate some of the zoning districts. Several districts have substantially similar allowable uses and dimensional (bulk) regulations. Consider consolidating the following districts:
- CS and CC

The main difference between these commercial zones is that many of the allowable uses in CC zones are only permitted in CS zones conditionally or with a special permit. <sup>15</sup> As to bulk regulations, the districts have similar requirements for minimum lot size; however, CS zones allow for higher density. <sup>16</sup> Consider consolidating these districts into a single district, using the higher density standards of CS zones to support economic growth, encourage vertical development, and reduce sprawl.

- R-22 and R-15

The only notable difference between these medium density residential districts is the minimum lot size.<sup>17</sup> Very few areas within the Town are zoned R-22. Further, in several of the R-22 districts, many of lots are smaller than the required minimum of 22,500 square feet. These lots are non-conforming by virtue of their size, and likely, their setbacks. Consider consolidating these districts into a single medium-density residential district, using the lower minimum lot size of R-15 (15,000 sf) to grant homeowners greater flexibility in residential design and reduce non-conforming lots and variance requests.

 R-40 There are four isolated R-40 zoning districts nestled within higher-density residential districts. These isolated R-40 zones, which consist of three or fewer parcels, could be rezoned to conform with the immediately adjacent zoning district to increase consistency in the zoning regulations.



<sup>15</sup> For example, the following uses are permitted by right in CC zones but require a special permit in CS zones: pet shops, upholsters, undertakers, printing shops, trade schools, and indoor theaters.

<sup>16</sup> In CC zones, the maximum floor area ratio (FAR) is 0.30; in CS zones, the FAR is 0.50 or 1.00 depending on the use.

<sup>17</sup> Minimum lot sizes: R-15: 15,000sf. R-22: 22,500 sf.

- Restructure the use and bulk tables to improve readability and understanding of the specific district regulations. Also, consider adding new uses to existing zoning districts.
- Consider deleting the deed-like descriptions of the zoning district boundaries within the
  text of the regulations; the boundaries are already established on the zoning map, and
  having them also detailed in the text increases the complexity and chances for inconsistencies in future amendments.
- Update the zoning districts, as well as allowable land uses and definitions, to recognize uses not previously addressed and assign appropriate performance standards where applicable.

#### **New zoning district:**

Mixed Use

Mixed Use zoning districts are established and intended to foster a mutually supportive mix of compatible residential and nonresidential uses. By integrating multiple compatible uses, mixed-used development reduces sprawl, auto-dependence, and infrastructure costs (including, fire and police department, sanitation and garbage collection, ambulances, and construction and maintenance of utilities and roadways), while supporting healthy, environmentally sustainable, pedestrian-oriented communities. The district emphasizes the streetscape experience through techniques such as discouraging (or prohibiting) parking areas in the front of buildings, and it is subject to flexible standards that encourage compact development at an appropriate scale and balance of uses to ensure that development is compatible with surrounding uses.

#### New land uses and definitions:

- Residential

Update regulations to support a diversity of housing options to ensure members of the community have access to quality housing. Under current regulations, residences generally fall into one of three broad categories: single-family (attached and detached), two-family (duplexes), and multifamily, defined as having three or more dwelling units. By funneling all residence types into these limited categories, specificity and flexibility are forfeited. Instead, expanding housing types to include triplexes, quadplexes, and garden townhomes,

Regional example of garden townhome development © AKRF



can facilitate contextual housing development and changes in housing demand. In addition, a regulatory approach to allow more housing as-of-right would reduce the time and cost associated with new home construction. The parameters of integrating and regulating more diverse housing options would be established during the development of the local law.

 Garden townhome Row houses that share at least one wall with adjacent units. Garden townhomes have modest lot coverage of not more than 25-35 percent to preserve open space. The open space may be natural or landscaped, active or passive, open to the public or limited to residents. Akin to cluster-style development, garden townhomes provide for enhanced stormwater management for reduced flooding (through less impervious surfaces), decrease infrastructure strain, conserve natural and scenic space, and foster social communities.

- Triplex

A building on a single lot containing three dwelling units.

Quadplex

A building on a single lot containing four dwelling units.





Regional examples of a quadplex (grouping of 4 townhomes) © AKRF

#### - Commercial/ Industrial

To keep pace with changes in the economy and business growth patterns, zoning regulations should adapt by recognizing and addressing new land use types. Without clear requirements, municipalities are left to rely on ad hoc determinations or discretionary decisions, which bog down the process and lead to unpredictable and unanticipated results. Particularly for the Route 303 Overlay District, there is a need to clarify this section to differentiate between the various types of warehouses and distribution centers, and to establish performance standards to address residents' concerns. Community feedback emphasized the desire for "clean and green" uses that utilize energy-saving equipment and/or alternative energy technologies and that do not rely on frequent use of large trucks for delivery, construction, or related activities. Consider adding new definitions, including, for example, indoor greenhouse, mini-warehouse, and data center. These uses may be subject to specific conditions, including integration of green technologies and restrictions on truck usage.

#### Miniwarehouse

Also known as self-storage facilities, a mini-warehouse is a building divided into units for long-term or temporary storage of items, and which units are not used for any other purpose (such as small offices, garages, etc.). Mini-warehouses may be: (1) "internal access only," meaning that individual units are only accessible from internal corridors; this type of facility generally resembles an office building; or (2) "with external access," meaning that individual units may be accessed from the exterior of the building (and may have internal access as well); this type of facility generally includes rows of garage-like units. While facilities with external access typically have a more industrial appearance, facilities that are "internal access only" blend easily into other types of development (including, office, retail, and mixed-use) and require less off-street parking for loading/unloading.

#### Indoor greenhouse

Warehouses provide the space and controlled climate necessary for large-scale indoor greenhouses and vertical farms. On the agricultural scale and in terms of production, indoor greenhouses fall between open-field farming (traditional agricultural) and urban farming (e.g., rooftop gardens, community farms). Because of their proximity to more densely populated areas, indoor greenhouses can help reduce financial and environmental costs for the transport of produce to stores and customers. Regulations would address standards and conditions to ensure appropriate use.

#### Data center

With the continual rollout of new internet services and network expansions, data centers continue to grow in demand. Participants at the public workshop expressed an interest in attracting data centers, which they considered to be a "clean industry" with good paying jobs. A data center is a facility that houses networked computer servers and accompanying IT equipment for the purposes of storing, processing, and disseminating data and applications. Because of their crucial role in business and general IT operations, facilities require enhanced utilities including cooling systems, heightened fire protection, network security access, and uninterruptible power supplies. Data centers provide data backup and cloud storage, as well as host websites and support electronic transactions. Data centers attract businesses because the closer the business is to a data center, the faster the business' overall internet speed. The American Planning Association notes that, "The proximity of data centers to communities is key to attracting connected industries for applications like smart manufacturing, as well as to deliver high-quality advanced services like telehealth, remote learning, augmented and virtual reality, autonomous vehicles, drone delivery, and all the various smart city applications."18 However, they do have energy and environmental considerations as they require high levels of power and water (for cooling). Regulations should recognize that data centers can vary greatly in their size, energy requirements, and potential risks.<sup>19</sup> Performance standards could include a requirement for the provision of onsite alternative energy systems.

<sup>18 &</sup>quot;Data Centers Evolved: A Primer for Planners." American Planning Association, July 22, 2021. https://www.planning.org/planning/2021/summer/data-centers-evolved-a-primer-for-planners.

<sup>19</sup> For a definition of data center, consider the Zoning Code of Loudon County, Virginia. Loudon County, which has the largest concentration of data centers worldwide, provides the following definition: "A facility used primarily for the storage, management, processing, and transmission of digital data, which houses computer and/or network equipment, systems, servers, appliances and other associated components related to digital data operations. Such facility may also include air handlers, power generators, water cooling and storage facilities, utility substations, and other associated utility infrastructure to support sustained operations at a data center." Loudon County Zoning Ordinance, Article 8 Definitions. https://www.loudoun.gov/DocumentCenter/View/146649.

## Tobacco store

Tobacco stores, also known as "smoke shops," are retail establishments dedicated primarily to the display, sale, offering, or marketing of tobacco or other nicotine-based consumables or related paraphernalia. Under current Town Code, tobacco stores are permitted by right in CS and CC zoning districts. There are no additional restrictions or requirements. To regulate standards and permitted locations for this use, consider requiring a special permit, and/or instituting separation requirements (for example, a minimum separation of 500 feet from any school or playground).

#### Food truck

Regulations for food trucks address their use both on public and private property. Food trucks may be allowed in certain commercial and residential districts under different criteria depending on the zone, and may address such requirements such as, hours of operation, scope of set-up (signage, seating, waste removal), as well as health, fire, and and sanitation requirements. Food trucks may be defined as as "a truck, trailer, or other motorized vehicle from which food/beverages are sold to the general public, and which is self-contained with all cooking apparatuses and related equipment contained within the vehicle."

An annual license to operate may be required, and special permits may be required for special occasions, such as parades, food truck rodeos, private events, and operations outside the scope of the ordinance. Food truck vendors must also comply with local public health department regulations for food service establishments, whether specific to mobile food vending or generally applicable to all food service.

Table 2-6
Proposed Use Table

P – Permitted as of right SP – Special Permit C - Conditional

Land Use	LO	LIO	ОР	CC[1]	со	LI	OZ[2]	RPC-R	RPC-OP	MU[3]
adult uses						SP				
airports and heliports	SP	SP								
all manufacturing uses except prohibited under §4.4 of Zoning Code						Р				
auditoriums and drive-in theatres				SP						
automobile sales and service agencies		С				Р				
banks				Р	Р					P*
bars				С						Р
business/professional office	Р	Р	Р	Р	Р	Р	Р		Р	Р
car washes						С				
churches and similar places of worship				Р	Р		Р			
commercial dog kennels and animal hospitals						Р				
commercial recreation (some exclusions)							Р	Р		P (indoor only)

Land Use	LO	LIO	ОР	CC[1]	со	LI	OZ[2]	RPC-R	RPC-OP	W0[3]
commercial recreation such as bowling, billiards, driving ranges						Р	Р			P (indoor only)
data center	SP	С				С	С		Р	
executive conference lecture facilities	Р						Р		Р	
fast-food restaurants				С	С		С			P*
fire, police, community-owned ambulance stations	Р	Р	Р	Р	Р	Р	Р			Р
gas stations				С		С				
government offices and office buildings	Р	Р	Р	Р	Р		Р			Р
hospitals					Р					
hotels and motels				С	С		С			С
hotels/conference centers			Р				С			
indoor greenhouse	Р	Р	Р			Р	Р			
jewelry stores and art shops				Р	Р		Р			Р
light manufacturing uses		С								
medical offices in existing residential structures				С						С
mixed-use buildings										Р
mixed-use developments 10+ acres (and other conditions)						SP				
mixed-use developments under 10 acres							С			
municipal parking lots and similar public buildings and government uses	Р	Р	Р	Р			Р			Р
nightclubs				С		С				Р
personal service stores				Р			Р			Р
pet shops				SP						
public and not-for-profit recreation								Р		
public utility substations and pump stations		С	С	С	С					
research, experiment, and testing labs	Р	Р	Р				Р			
restaurants, except fast-food				Р	С		Р			Р
retail drug, variety, food, auto supply, tobacco stores, clothing and department stores, physical fitness				Р			Р			Р
sand pits and gravel pits		SP	SP							

Land Use	LO	LIO	ОР	CC[1]	со	LI	OZ[2]	RPC-R	RPC-OP	MU[3]
schools of general instruction	Р	Р	Р	Р						Р
schools of religious instruction				Р						Р
schools of special instruction				Р						Р
self-storage (mini-warehouse), internal access only										
self-storage (mini-warehouse), with external access										
senior citizen housing				SP	SP					SP
theatres (not drive-ins)				SP	SP	Р	Р			SP
undertakers		SP	SP	SP	SP		SP			
wholesale sales or storage, and warehouses						Р				

#### Notes:

[1] CC - Community Commerce District. This new district merges and replaces the CS (Community Shopping District) and CC (Retail-Commerce District).
[2] OZ -Rt 303 Overlay. Uses permitted in this district may be subject to additional standards or limitations as provided in Article XIII, Route 303 Overlay Zoning District, of the Zoning Code.

[3] MU - Mixed-Use District. In this pedestrian-oriented district, uses that are auto-oriented should be discouraged or prohibited. For example, although uses such as banks, pharmacies, and restaurants would be allowed, such facilities would not be permitted to have a drive-thru component. The MU district would also permit multi-family residential uses, including: duplexes, triplexes, quadplexes, semi-detached residences, townhomes (traditional and gardenstyle), low rise apartments, and live-work buildings (retail uses on the ground floor and residential units on upper floor(s)). The requirements and restrictions of this new district would be established during the development of the local law.

\*No drive-through component.

Regional example of modern townhomes © AKRF



## Update the Route 303 Overlay District for clarity, enforcement, and to minimize variance requests.

- In line with the Legislative Intent outlined in the Town's Zoning Code,<sup>20</sup> target identified commercial, strip style developments for retrofitting with mixed-use and "missing middle" housing, both of which facilitate walkable, environmentally sustainable development.
  - Missing middle housing includes a range of multi-unit housing that are compatible in scale with traditional single-family homes, help meet the growing demand for walkable neighborhoods, and help address the housing shortage.<sup>21</sup> The locations and standards applicable to missing middle housing would be established during the development of the local law.
  - Public feedback provided support for redeveloping strip malls, particularly with mixed-use developments; however, common concerns were for design standards and strain on infrastructure. Consider requiring increased design, façade, and landscaping standards on redevelopments and new developments, as well as contributing to upgrades for existing infrastructure. Identified commercial interchanges:
    - Oak Tree Road/Tappan
    - Orangeburg Road/Orangeburg
    - Erie Street/Blauvelt
- · Consider adding other auto-oriented uses (e.g., drive-through facilities) to the list of prohibited uses in § 13.10.B (6), particularly on sites that abut residential areas; consider requiring a pedestrian/bicyclist-only entrance from the side streets.
- Minimize variance requests. Variances provide relief to property owners who seek to use their property in a way not permitted by the regulations, either because the desired land use is not permitted, or because the physical building and/or lot do not meet the minimum or maximum bulk (dimensional) standards. If a particular land use becomes a frequent source of variance requests, it is an indication that the regulations should be updated to clarify that portion of the Zoning Code. Similarly, when stringent dimensional standards hinder favorable development because of the need for variances, this indicates that the dimensional standards should be updated.

#### Warehouses and distribution center

The ban on "[r]etail warehouse uses including mini-storage uses and distribution centers...in excess of 65,000 square feet" within the Overlay District has been a source of confusion and the subject of variance requests and appeals, specifically, on the issue of whether the ban applies to all distribution warehouses (retail and wholesale), or if the ban is limited to only retail warehouses and distribution centers. To resolve this ambiguity and clearly address the community concern, the text of the Overlay District should be amended to clearly differentiate between different types of

<sup>20</sup> See § 13.5.

<sup>21</sup> The housing shortage is particularly acute in Rockland County, which has both the highest rate of rent-burdened tenants in the metro area (59% as of 2017) and among the lowest housing production rates in the country.

warehouses and distribution centers, specify which types are permitted, and establish performance standards to address residents' concerns.<sup>22</sup>

## - Constrained redevelopment

Within the Overlay District, certain sites may be in technical compliance with the required dimensional standards but may not meet the aspirational redevelopment goals of the Overlay District. Yet, redevelopment on these sites is constrained because of their relatively small lot sizes, which makes it infeasible or impossible to fit the new structures and desired features and still comply with the required setbacks and other dimensional standards. In these cases, property owners would have to obtain variances to proceed, which discourages and hinders redevelopment – even redevelopment that is desirable and in line with the goals of the Overlay District. Therefore, to reduce the need for variances and encourage favorable redevelopment, the dimensional standards in the Overlay District should be loosened.

 As a complementary technique, retrofitting is an approach to upgrade, without necessarily redeveloping, existing developments by integrating enhanced features such as landscaping, bicycle/pedestrian pathways, seating areas, environmental protections, and general aesthetic updates.

# - Update nuisance regulations to improve resident quality of life.

- Review minimum buffer requirements between commercial and residential uses; effective buffers are not necessarily wide, but dense, to enhance visual quality (and provide screens when necessary), reduce noise, and enhance environmental sustainability; they should be planted with mixed, native vegetative, hearty species with sufficient size and density and regularly supplemented with new plantings.
- Review noise, light, and odor regulations, and increase enforcement of existing provisions. Consider restricting truck deliveries and loud machinery uses to certain hours.
   Residents report that noise and odors issues have gotten worse as facilities are allowed to expand but nuisance regulations are not enforced to protect residents. In particular, residents expressed concern about recycling facilities with odors that travel as far as half a mile away.
- Establish regulations to govern short-term housing rentals and the commercial use of residential properties. In particular, the short term rental of residential swimming pools should be prohibited.

<sup>22</sup> The ban is referenced in two sections of the Code: § 13.10.B.5., Nonresidential areas, quoted above, and § 15.5.J, Legislative intent, which states that: "particular types of retail and retail warehouse uses shall be prohibited, pursuant to § 13.10." To implement the recommended change, both sections of the Code would need to be updated to differentiate between permitted and prohibited types of warehouses.



Regional example of senior living apartments on a major road © AKRF

- Where appropriate, update the zoning map and code to create transitional districts between hamlet centers and suburban neighborhoods. Transitional districts take into account the character and scale of the areas on either side of it. Generally, the scale of buildings decreases as you move (or transition) from a higher density downtown to a lower density residential neighborhood.
  - Mixed-use districts, which integrate townhome and apartment housing types with retail spaces, are a natural way to transition between residential and commercial, shopping areas. Buildings in mixed-use districts may include shops, restaurants, or offices on the ground floor and apartments on the upper floors. Typical housing types in mixed-use districts include townhomes, low-rise apartments, and live-work buildings. These housing types are sometimes referred to as the "missing middle" because they sit in the middle of the spectrum between detached single-family homes and multi-family homes, in terms of scale, as well as number of units and often, affordability.<sup>23</sup> In addition to providing more housing diversity, missing middle housing supports locally-serving retail and public transportation options. Missing middle housing fits well among single-family homes, or alongside single-family areas where it can form a transition to the downtown.

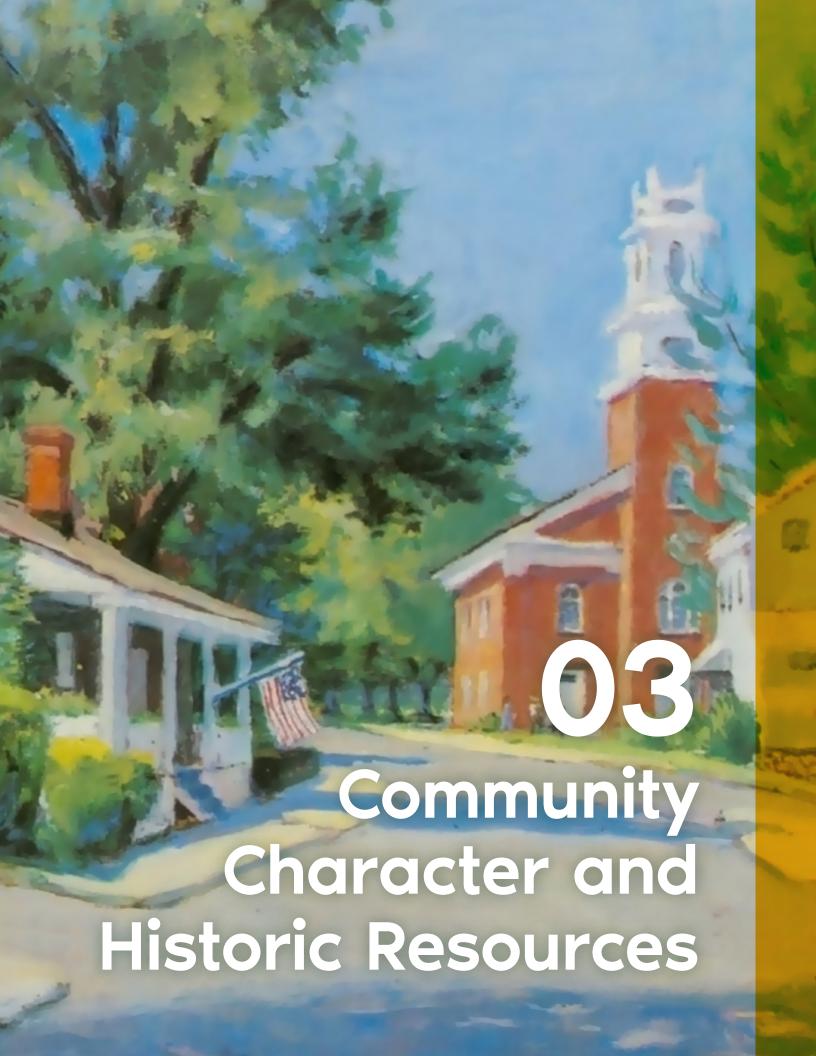
<sup>23</sup> The term "missing" refers to the fact that this type of home construction has been largely illegal in the United States since the mid-1940s. "What is Missing Middle Housing?" 2022. <a href="https://missing-middlehousing.com/about">https://missing-middlehousing.com/about</a>.

Public feedback emphasized that, in addition to the array of housing construction styles, mixed-use districts are particularly suitable for senior housing owing to their walkability and access to services and public transit. The details, including location, restrictions, and standards, for transitional districts would be established during the development of the local law.

- Establish performance standards within the Town's Zoning Code to mitigate traffic impacts.
- Update the Zoning Code to include design guidelines and protections for rural and scenic roadways.
- Review flexible/conservation subdivision regulations.
- Update the Tree Preservation Code to regulate the removal of mature trees.
  - Details of the ordinance would be established during the development of the local law. However, it is anticipated that the removal of dead, dying, or invasive species would be exempt from the tree preservation ordinance.



- Review Special Permit and Conditional Use Permit Standards and update as necessary to address current uses and concerns. In particular, clarify and update the standards for warehouses and distribution centers.
- Develop a steep slopes and ridgeline protection ordinance.
- Develop design guidelines for facades, signage, and streetscapes to preserve, protect, and enhance the unique characteristics of each hamlet.



**Community Character and Historic Resources** 

03

**Historic Resources in Orangetown** 

Vision, Goals, and Objectives



Main Street, Nyack, circa 1910. Source: Springfield College Archives and Special Collections

## Introduction

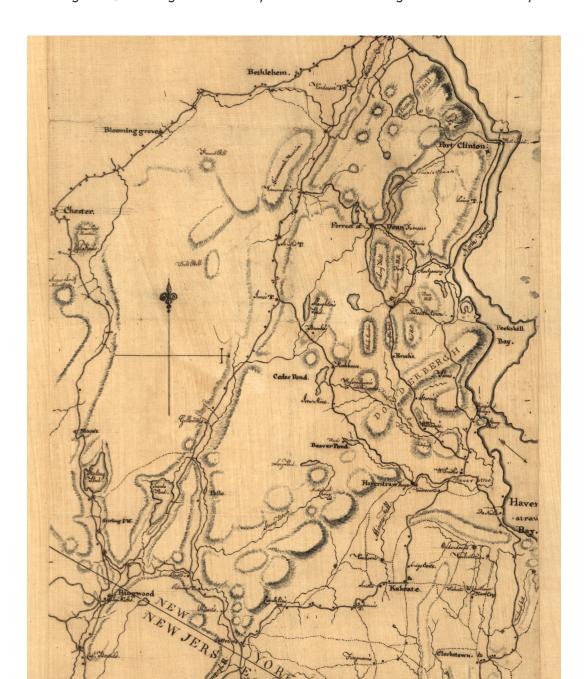
Located in the southern Hudson Valley, Orangetown was once part of the region occupied by the Lenape Native Americans. Dutch farmers moved to the area in the 17th century, attracted by the dense forest and fertile farmland located close to the Hudson River. When the British ousted the Dutch from rule in Manhattan in 1664, many Dutch farmers moved to the Hudson Valley to continue practicing their way of life. Dutch families continued to farm the land in Orangetown for over a century and the Dutch language and customs persisted here well into the 19th century. This heritage is apparent in the names for localities throughout Orangetown, such as Blauvelt (Blue fields), Sparkill (Spar creek) and Tappan Zee (Tappan Sea). Enslavement was a common practice for farmers in Orangetown, and enslaved persons of African descent were transported to Orangetown until 1827, when the New York State Constitutional Convention proclaimed emancipation for African Americans residing in the state.



Nyack-Tarrytown ferry. New Jersey New York Hudson River, ca. 1921. Source: Library of Congress

Orangetown was officially established by the State of New York in 1788. Growth and development accelerated as transportation improvements eased the movement of passengers, produce, freight and stone, leading to new residential enclaves and industrial growth. From 1827, Hudson River sloops were replaced with steamboats. The Nyack Turnpike was completed in the early 19th century, connecting Nyack to Suffern, and the Orange Turnpike formed an inland route to Albany. Railroads were built to connect communities throughout the northeast. In the 1830s, a one-mile-long pier was built in the Hudson River at Piermont, where railroad cars and barges transferred freight.

Early industry in Orangetown included red sandstone quarries and brick yards along the Hudson River. From 1840 to 1900, manufacturers built large brick factories. Nyack was home to multiple manufacturers of shoes, organs, and sleds, as well as the steam tub and pail factory. Orangeburg became known for Orangeburg pipe, a fiber pipe used predominantly for sewer piping and drainage purposes. Farming persisted as a dominant pursuit in Orangetown, including fruit and dairy farms that sent their goods to New York City.

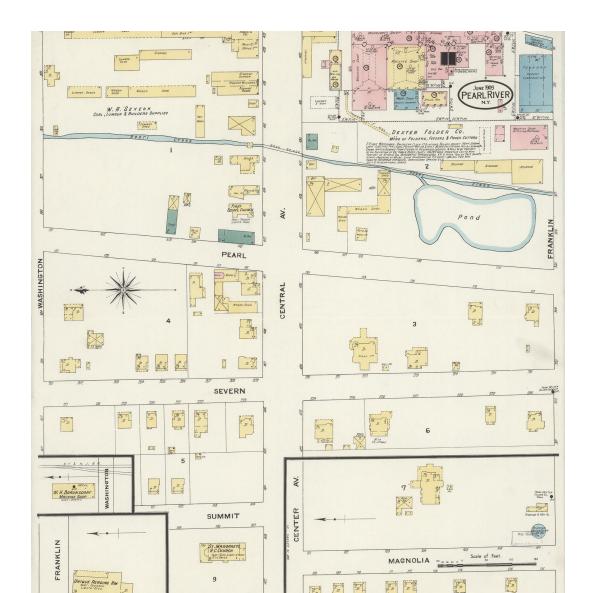


Map of Orange and Rockland Counties area of New York, circa 1750. Source: Library of Congress

The Hudson River Valley thrived with tourism in the late 19th and early 20th centuries. Hotels and mansions were constructed to serve the visitors and part-time residents who flocked from New York City to enjoy open air and the riverfront.

As Orangetown's population grew, the Town became the site of various institutional uses. The Dominican Home for Children and St. Agnes Home for Children established services in the area at the turn of the 20th century. Nyack Missionary College was located in South Nyack from 1897. Rockland State Hospital, later Rockland Psychiatric Center was built in 1926 in Orangeburg. In Orangeburg and Tappan, Camp Shanks was a large port of embarkation during World War II.

In the 1950s, The New York State Thruway and the Tappan Zee Bridge changed the landscape and transformed Orangetown from a smaller farming and manufacturing community into a suburb of New York City. The population grew and diversified, as new residents settled in the region.



Pearl River Sanborn Fire Insurance Map, 1909. Source: Library of Congress

# Historic Resources in Orangetown

#### **Hamlets**

Orangetown encompasses eight hamlets, where early settlements formed at historic crossroads, railroad stations, and ports. The historic hamlets are described below.

#### **Blauvelt**

The hamlet of Blauvelt is a residential center in the north central portion of Town. The hamlet was originally settled as Greenbush by several families, including members of the Blauvelt family. In the early 19th century, residents built the Greenbush Presbyterian Church, a school, and a road (now Route 340) to transport produce to Tappan Landing (now Piermont). Development in the hamlet continued through the 19th century, propelled by the Erie railroad, which included a stop in the hamlet center. Today, Blauvelt is a residential hamlet that includes sandstone houses built by the Blauvelts dating back to the mid-1700s.

#### **Orangeburg**

The hamlet of Orangeburg is a busy commercial crossroads located in the center of Orangetown. Orangeburg developed as a center of commerce and was the intersection of the two major rail lines, the Erie and the West Shore. The hamlet developed with large manufacturing and institutional uses. In the late 19th century, factories operated on Greenbush Road and along Route 303.<sup>2</sup> The Rockland State Hospital was built in the 1930s. During World War II, Orangeburg was a Port of Embarkation. Camp Shanks was created in 1942 to process soldiers for deployment, and to house prisoners of war.

<sup>2</sup> The Orangetown Historical museum and Archives. (2011). Images of America: Orangetown. Charleston, South Carolina: Arcadia Publishing.



Camp Shanks, Orangeburg, circa 1945. Source: Library Association of Rockland County

<sup>1</sup> The Orangetown Historical museum and Archives. (2011). Images of America: Orangetown. Charleston, South Carolina: Arcadia Publishing.

#### **Palisades**

The hamlet of Palisades dates to the 1600s, when European settler William Merritt built a house on the riverside. Serving as a ferry crossing early in its history, Palisades grew in the 19th century as a thriving residential center perched above the Hudson River. The hamlet is characterized by single family houses on forested lots. Residential neighborhoods line the narrow hillside streets that descend to the waterfront. The hamlet once included the community of Skunk Hollow, a settlement of free African Americans dating from the early 1800s.<sup>3</sup> Existing for over a century, the community began to dissipate around 1905, when some residents moved to Sparkill where they established St. Charles AME Zion Church.

#### **Pearl River**

The hamlet of Pearl River grew as an industrial town from the late 19th century, with manufacturers such as the Aetna Sewing Machine Company and the Dexter Folder Company operating near the Pearl River railroad station. The hamlet is located in the western portion of Orangetown. The Pearl River railroad station is at the center of the hamlet, surrounded by dense commercial streets and residential neighborhoods.

#### **South Nyack**

The former village of South Nyack is a residential area on the Hudson River, near the incorporated community of Nyack. The South Nyack community dates back to the 18th century, with settlers benefiting from the rich farmland on the riverfront. Much of the hamlet's historic fabric was lost during the 1950s with construction of the Tappan Zee Bridge and the New York State Thruway. Today the former village retains older residential neighborhoods near the riverfront.



Tappan Zee Bridge, looking west, 1980. Source: Nyack Library Local History Collection

#### **Sparkill**

The hamlet of Sparkill is located at an inlet of the Sparkill Creek near the Hudson River. From the 17th century, shallow sloops carried people and freight down the Sparkill Creek into Orangetown. Sparkill contains a downtown center surrounding Depot Square.

#### Tappan

The hamlet of Tappan is one of the oldest communities in Orangetown. Located at an important crossroads and along the Sparkill Creek, Tappan was a center for trade in the 18th century. Until 1773, Tappan was the county seat of Orange County. Tappan's role in regional trade subsided in the early 1800s, when the deeper ports of Piermont and Nyack

<sup>3</sup> African American Historical Society of Rockland County. "Skunk Hollow." Accessible at <a href="https://aahsmuseum.org/dt\_portfolios/skunk-hollow/">https://aahsmuseum.org/dt\_portfolios/skunk-hollow/</a>

were better suited for steamships. From the late 19th century, Tappan evolved as a picturesque residential hamlet and farming community.

Upper Grand View The small hamlet of Upper Grandview is located in the northern portion of Orangetown, up the hill from the incorporated Village of Grand View-on-Hudson. This area contained stone quarries in the early 19th century. With the extension of the railroad, the area grew with new residences, hotels and inns. The hamlet and village are named for the "grand views" overlooking the Hudson River. The hamlet is characterized by houses built into the steep hillside.



Erie Railway, Sparkill Station, circa 1880. Source: Historic American Engineering Record, Library of Congress

### Villages

#### **Piermont**

Piermont is an incorporated village located in the eastern portion of Orangetown, on the Hudson River. The village was an early European settlement, due to its location beside the Sparkill Creek, one of the first interior passages for boats traversing up the Hudson River. With railroad travel, the mile-long Piermont pier was built to connect rail cars to large barges docked in the deeper waters.

#### **Nyack**

Nyack is an incorporated village located in the northeastern portion of Orangetown. Early industry in Nyack included sandstone quarrying and boat building. The quarry business provided materials for New York City building construction in the early 1800s. Local boat yards constructed sloops to carry the stone, as well as passengers, produce, and freight, down the river to the city. With improvements in technology, sloops were replaced with steamboats for faster and more reliable service. With the success of these two industries, Nyack attracted workers and their families, and further investment.

#### **Grand View-on-Hudson**

The incorporated village of Grand View-on-Hudson is located in eastern Orangetown, just north of Piermont. The small village is largely along River Road, a coastal route overlooking the west bank of the Hudson River. The road is characterized by large residences built in the 19th and early 20th centuries.

#### **Historic Areas**

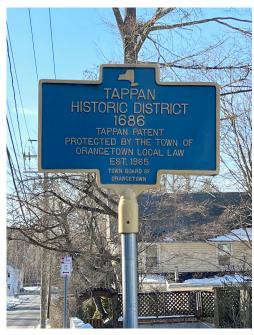
The Town of Orangetown protects Historic Areas in the Hamlet of Tappan and in the Hamlet of Palisades. The boundaries of the Historic Areas are delineated on the Town Zoning Map. The Tappan Historic Area encompasses a larger area than the National Register Tappan Historic District, described below. The Palisades Historic Area encompasses the National Register Closter Road—Oak Tree Road Historic District, the National Register Washington Spring Road-Woods Road Historic District, the S/NR-Listed Neiderhurst-W.S. Gilman Jr Estate, the S/NR-Listed Big House, and the S/NR-Listed Little House, as well as additional properties not S/NR designated.

#### **Historic Districts**

Orangetown includes four historic districts that are designated as Listed or Eligible for Listing on the National Register of Historic Places.

## Tappan Historic District

The hamlet of Tappan is located in the southern portion of Orangetown. The hamlet's boundaries are indefinite, though the Tappan Historical Area map adopted by the Orangetown Town Board in 1965 includes the area that covers 30 properties within the commercial and residential core, roughly bounded by the Sparkill Creek on the east, the south side of Main Street, Brandt Avenue to the west, and Greenbush Road Cemetery to the north. The period of significance for the district is 1730 to 1920, including sandstone structures from the 18th century, Greek Revival style buildings constructed in the early 19th century, Gothic Revival-style residences, and a Colonial Revival style store and a stable, both built in the early 20th century.



Tappan Historic District © AKRF

Washington Spring Road – Woods Road Historic District The Washington Spring Road-Woods Road Historic District is located in Palisades along the Hudson River. The historic district includes 42 properties, representing the historic hamlet of Palisades. The district is located within a narrow valley that descends to the Hudson River, and includes properties along Washington Spring Road, Woods Road and Dirt Lane. The historic district's period of significance is 1730 to 1930, developing as a middle-class and upper-middle class residential area. The historic district represents a variety of architectural styles, representing the diversity of residents who came to occupy the neighborhood.

Closter Road
Oak Tree Road
Historic District

The Closter Road-Oak Tree Road Historic District is located in the western portion of Palisades. The district includes 19 properties. The historic district is located along one block of Closter Road and a block of Oak Tree Road, located on a large plateau above the hamlet. The district's period of significance is between 1780 and 1910. The district is characterized by single-family two-story residences that are similar in size but feature a variety of architectural styles. The district also contains two commercial buildings, a schoolhouse, and a former ecclesiastical building.

Rockland Road Bridge Historic District The Rockland Road Bridge Historic District is located in the Village of Piermont. The district encompasses 5.38 acres and includes buildings along Piermont and Ferdon Avenues, on both sides of Sparkill Creek. The roads are connected by Rockland Road Bridge, a masonry arch bridge constructed in 1874. The district's period of significance is ca. 1785 to ca. 1940 and is characterized by mid-19th century residential buildings.

#### **Local Historic Sites and Landmarks**

The following historic resources are identified as Historic Sites and Landmarks by the Town of Orangetown.

The following historic resources are identified as notable historic sites by the Town of Orangetown. Many of these properties are also Listed on the National Register of Historic Places (S/NR-Listed) (see **Table 3-1**).

John Green House, Nyack The John Green House (S/NR-Listed) is located at 23 Main Street in Nyack. Constructed in 1817, the Dutch style building is one of Nyacks's oldest houses. John Green was a local businessman and founding member of the Nyack community, overseeing the construction of the Nyack Turnpike and investing in steamboats at the waterfront, which helped transform Nyack from an isolated river town to a commercial center. In 2015, the John Green Preservation Coalition was formed to save the house from demolition.



John Green House, Nyack © Google Maps

#### Edward Hopper House, Nyack

The mid-19th century wood frame at 82 North Broadway in Nyack (S/NR-Listed) is the birthplace and boyhood home of artist Edward Hopper (1882-1967). The two-story building is clad in clapboard siding. It features a medley of architectural styles, including features associated with the Colonial Revival, Victorian, Greek Revival and Carpenter Gothic styles.



Edward Hopper House, Nyack © WikiCommons

### Dewint House, Tappan

OPEN DAILY 10:00AM TO 4:00PM

CLOSED MONDAYS

The Dewint House is located on Livingston Street within the Tappan Historic Area. The Dewint house was built in 1700 by Daniel de Clark. It was known as the De Windt House when Washington occupied it during the Revolutionary War. The one-and-a-half-story building is built of brick and local stone.



Dewint House, Tappan, built 1700 © AKRF

#### Andre Monument, Tappan

The Major Andre Monument (S/NR-Listed) is located on Andre Hill within the National Register Tappan Historic District and the local Tappan Historic Area. The black Maine granite monument is 3'6" square by 5'8" tall. Taseman and Company in Nyack created the monument in 1879, in recognition of Major John Andre. Accused of being a spy and collaborating with Benedict Arnold, the British Major was hanged close to the site in 1780. The original base was dynamited by vandals in 1882.



Major John André Monument © WikiCommons

#### The Tappan Reformed Church, Tappan

The Tappan Reformed Church is located within the National Register Tappan Historic District and the local Tappan Historic Area, at 35 Kings Highway. Constructed in 1835, the brick church is significant for its Greek Revival-style architecture.



Tappan Reformed Church © AKRF

NY 4357-A.

Dutch Reformed Church, Tappan, 1933. Source: Historic American Engineering Record, Library of Congress 110 Main Street, Tappan The 18th century sandstone house at 110 Main Street (S/NR-Listed) is significant as the location where convicted British Spy Major Andre was confined prior to his hanging on a nearby hill. The property is located within the Tappan Historic Area and within National Register Tappan Historic District.



110 Main Street, Tappan ("76 House") © AKRF

DePew House, Orangeburg The DePew House is located at 196 Chief Bill Harris Way in Orangeburg. The historic site is part of the Orangetown Historical Museum complex. The building is also included within the S/NR-eligible Rockland Psychiatric Center Historic District. The building was constructed circa 1778. In 2002 the Orangetown Historical Museum and Archives acquired the property and extensively restored the 18th century building.

Edward Salyer House, Pearl River

The Edward Salyer House (S/NR-Listed) is located at 241 S. Middletown Road in Pearl River. The Dutch Colonial-style residence was built in the late 18th century.

W.H. Gesner House (Palisades Free Library), Palisades The Palisades Free Library is located at 19 Closter Road within the National Register Closter Road-Oak Tree Road Historic District and the local Palisades Historic Area. The building is also known as the W.H. Gesner House. The Greek Revival-style house was built circa 1830.

William Devoe Store (Tappan Free Library), Tappan

The Tappan Free Library, also known as the William Devoe Store, is located at 93 Main Street within the National Register Tappan Historic District and within National Register Tappan Historic District. The Federal-style building was initially erected circa 1750 as a house. In the 1800s, the building was converted to a store and was substantially altered.

Table 3-1 **National Register Listed Properties in Orangetown** 

Historic Resource	Location	Town/Village/Hamlet	Photo Key
Tappan Historic District	Roughly bounded by Main St./Kings Hwy., Andre Ave. and New York Central RR	Tappan	1
Washington Spring RoadWoods Road Historic District	Roughly area along Washington Spring Rd. from Highland Ave.	Palisades	2
Closter Road-Oak Tree Road Historic District	Roughly N side of Closter Rd. and S side of Oak Tree Rd.	Palisades	3
Rockland Road Bridge Historic District	Ferdon Ave., Rockland Rd.	Piermont	4
Neiderhurst	Ludlow Ln. S of River Rd.	Palisades	5
Seven Oaks Estate	End of Ludlow Ln.	Palisades	6
Dewint House	Livingston Ave. and Oak Tree Rd.	Tappan	7
Palisades Interstate Parkway	Fort Lee, NJ, to Bear Mountain, NY	Fort Lee, NJ to Bear Mountain, NY	8
Ross-Hand Mansion	122 S. Franklin St.	South Nyack	9
Tappan Zee Playhouse	20 S. Broadway	Nyack	10
Sparkill Creek Drawbridge	Bridge St. over Sparkill Creek	Piermont	11
Salyer, Edward, House	241 S. Middletown Rd.	Pearl River	12
Concklin, Abner, House	Closter Rd.	Palisades	13
US Post OfficeNyack	48 S. Broadway	Nyack	14
US Post OfficePearl River	Franklin and Main Sts.	Pearl River	15
Big House	US 9W near jct. with Closter Rd.	Palisades	16
Little House	US 9W N of Oak Tree Rd.	Palisades	17
HaringEberle House	US 9W N of Oak Tree Rd.	Palisades	18
Haddock's Hall	300 Ferdon Ave.	Piermont	19
HopsonSwan Estate	US 9W E of Sparkill, Tallman Mountain State Park	Sparkill	20
Wayside Chapel (Former)	24 River Road	Grand View-on-Hudson	21
Hopper, Edward, Birthplace and Boyhood Home	82 North Broadway	Nyack	22
St. Paul's United Methodist Church	11 Division Street	South Nyack	23
"Stonehurst" (Dederer Stone House)	82 Rockland Road	Sparkill vicinity	24
Salyer, Michael, Stone House	213 Blue Hill Road (CR 23)	Nauraushaun vicinity	25

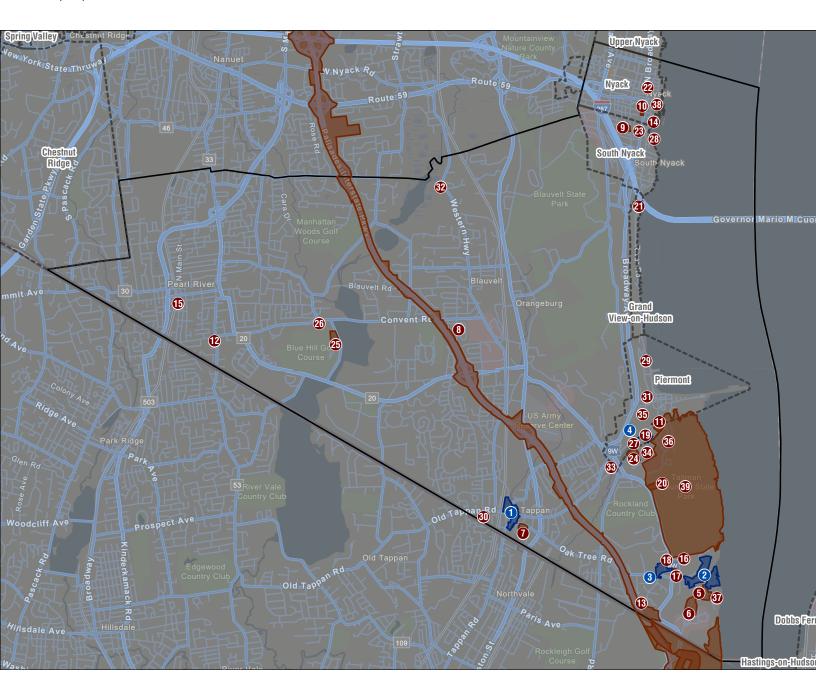
Historic Resource	Location	Town/Village/Hamlet	Photo Key
Perry, Jacob P., House	15 Sickeletown Road	Pearl River vicinity	26
Rockland Road Bridge	Rockland Road	Piermont	27
McCullers, Carson, House	131 South Broadway	South Nyack	28
Onderdonk House	748 Piermont Avenue	Piermont	29
Andre, Major John, Monument	42 Andre Hill	Tappan	30
Piermont Railroad Station	50 Ash Street	Piermont	31
Blauvelt, Johannes Isaac, House	820 Western Highway	Orangetown	32
Christ Church	14 Union Street	Sparkill	33
Ferdon, William, House	270 Ferdon Avenue	Piermont	34
House at 352 Piermont Avenue	352 Piermont Avenue	Piermont	35
First Reformed Church of Piermont	361 Ferdon Avenue	Piermont	36
Cliffside	24 Lawrence Lane	Orangetown	37
Green, John, House	23 Main Street	Nyack	38
Palisades Interstate Park	Bear Mountain State Park	Bear Mountain	39

The Manse, home to Domine Samuel Verbryck, Tappan, built 1726 © AKRF



Figure 3-1 **Historic Sites Map** 

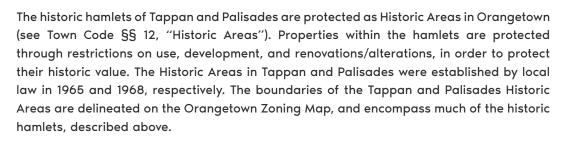




#### **Historic Roads**

Historic roads in Orangetown are protected locally in order to preserve their historic characteristics (see Tools for Historic Preservation). Designated historic roads in Orangetown include: Washington Springs Road, Closter Road and Oak Tree Road in Palisades; Kings Highway (northern portion) in Orangeburg and Sparkill; and Rockland Road in Sparkill. All five of these Historic Roads were designated in 1993. In addition, Palisades Interstate Parkway is a New York State Scenic Parkway.

#### **Tools For Historic Preservation**



Within the two Historic Areas, the Historical Areas Board of Review must review all construction to buildings constructed prior to 1918. All applications for new buildings must be reviewed by the Board of Review appointed by the Town Board. Proposed changes, additions or new construction must be in keeping with the existing structure, and new structures shall harmonize with the surrounding buildings. The Historic Areas Board of Review also must review any applications for the demolition of buildings constructed before 1945.

Orangetown protects historic roads that are significant to the history of the Town, county, state and nation. The Town protects historic roads in order to preserve the educational, cultural, tourism/recreational, environmental and aesthetic, economic, and general welfare benefits that historic road preservation is found to provide (see Town Code §§ 19-1 to 19-8, "Historic Road Preservation"). The Town Board designates historic roads based on their historical significance and integrity. A certificate of approval is required for work that may alter or improve any such road. Such alterations include material change, changes in road design, changes in signs, and changes in zoning for the land adjacent to the road. The local law requires maintenance must be carried out so as to preserve the historic and scenic features of the road. Routine maintenance must not include the following activities: widening, changes of grade, straightening or realignment, removal of stone walls or bridges, removal of mature trees, or the paving of existing unpaved roads. The legislation also regulates the existing environment along the road including any new construction along the roadside, or alterations to topography or landscaping beside the road.



According to the NYS Office of Parks, Recreation, and Historic Preservation (OPRHP), large portions of the Town are located within Archaeologically Sensitive Areas, meaning that they have the potential to contain archaeological resources. As such, the Town's land use boards should consider potential impacts to archaeological resources when reviewing development applications and consult with OPRHP as appropriate.



Palisades Historic
District © AKRF



Dewint House, Tappan. John Scott photographed this Edwin Dahlberg painting.

Source: Nyack Library Local History Collection

# Vision, Goals, and Objectives

The vision, goals, and objectives related to historic preservation were developed based on an inventory of the existing historic preservation measures and public feedback. In the community survey, 64 percent of respondents indicated that the preservation of historic buildings and structures was an important or very important factor to consider in terms of future development.

### **Proposed Implementation Strategies**

The 2022 Comprehensive Plan goals include maintaining the Town's community and neighporhood character while balancing the need for growth and development and preserving history, open space, and hamlet center character, while promoting a diversity of housing options in appropriate neighborhoods to ensure members of the community have access to auality housing.



A bucolic road in Pearl River © AKRF

The following strategies are proposed to implement the goals and objectives of the Comprehensive Plan:

## Maintain existing local preservation tools.

The existing historic preservation tools as established by Chapter 12 of the Town Code should be maintained.

## Develop designation criteria for Historic Areas.

Update Chapter 12 of the Town Code to include designation criteria for Historic Areas. This would allow for the nomination of new Historic Areas for local protection. The hamlets of Tappan and Palisades are protected through local Historic Areas legislation. The remaining hamlets in Orangetown do not have historic protections guiding their future development.

## - Develop design guidelines and performance standards.

Visual guidelines offer building owners and the Historical Areas Board of Review clear and predictable recommendations for supporting the design review process. Design guidelines describe an area's historic design aesthetic, so that alterations and new construction can conform to the neighborhood aesthetic and reflect the community's preservation goals.

## Publish online an inventory of locally-designated historic roads.

A public database allows for residents, municipal staff, and property owners to identify protected historic roads and ensure their protection.

## - Consider individual landmark protections.

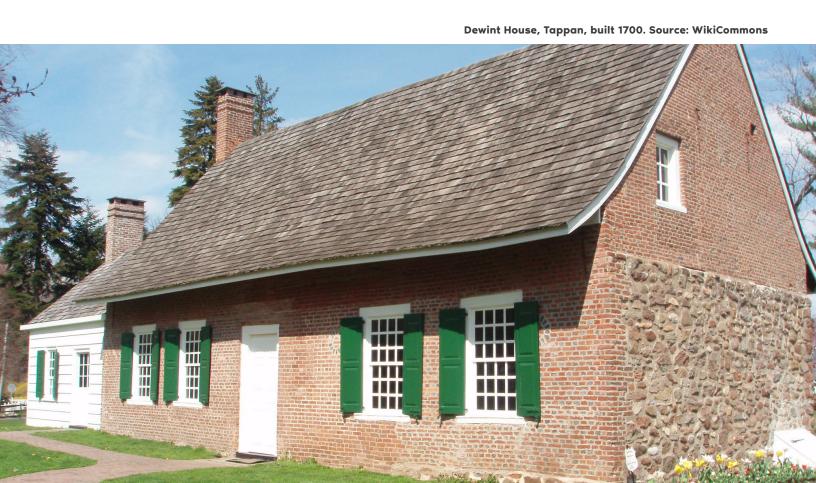
Further investigate amending Chapter 12 of the Town Code to include local protections for individual landmarks, which includes a process for the designation of a review board, standards for review, the process for designating an historic building or site, and the criteria to be used for that designation. This could also include establishing a program to protect and enhance the display of monuments and markers, which would also serve to beautify Town parks.

## Survey Orangetown's historic buildings and structures.

Conduct a historic resources survey of potentially eligible buildings and sites in Orangetown.

## - Consider joining the CLG Program.

Pursue enrollment in the Certified Local Government (CLG) Program administered by New York State. CLGs are eligible to receive services from the State Historic Preservation Office, including technical preservation assistance, training opportunities, and exclusive grants.





Transportation, Mobility and Parking

**Existing Conditions** 

**Goals and Objectives** 



Downtown Pearl River © AKRF

# Introduction

The transportation component of the Comprehensive Plan provides an overview of the Town of Orangetown's existing transportation network. This information provides the context for the development of goals and recommendations for potential transportation improvements for transportation, mobility, and parking in the Town, to address the needs and challenges that the Town presently faces, and will face in the future.

# **Existing Conditions**

This section describes the inventory and assessment of existing transportation systems in the Town of Orangetown, including pedestrian and bicycle infrastructure, roadways, and public transportation.

#### **Roadway Network**

The Orangetown roadway network consists of major highways, arterials, collector roads and local roads, seen in **Figure 4-1**.

### **Major Highways**

Major highways, defined as high-capacity limited access interstate roadways, within Orangetown include Interstate 87, Interstate 287, and the Palisades Interstate Parkway.

#### Interstate 87/287

I-87/287, also known as the New York State Thruway, connects Orangetown with Westchester County and New York City to the east and south, the remainder of Rockland County, Orange County, and upstate New York to the west and north, and New Jersey and Connecticut via other interstate highways. Interstate highways are primarily used to connect vehicles and trucks to regional destinations. Within Orangetown I-87/287 generally traverses east-west, but the Thruway primarily traverses north-south. I-87/287 has a speed limit of 55 miles per hour (mph) and is under the jurisdiction of New York State Department of Transportation (NYSDOT). According to NYSDOT, I-87/287 carries approximately 156,000 vehicles per day (2019 average annual daily traffic (AADT)) within the Town.

#### Palisades Interstate Parkway

The Palisades Interstate Parkway (PIP) connects Orangetown with New Jersey to the south and the remainder of Rockland County and Orange County to the north, primarily traversing north-south. Connections to other major roadways in Orangetown include I-87/287, Route 303, and Orangeburg Road. As a designated State Scenic Byway in the states of New York and New Jersey, the PIP is a historic roadway providing scenic views. The PIP has a speed limit of 50 mph and is under the jurisdiction of NYSDOT. According to NYSDOT, the PIP carries approximately 49,000 vehicles per day (2019 AADT) within the Town of Orangetown.

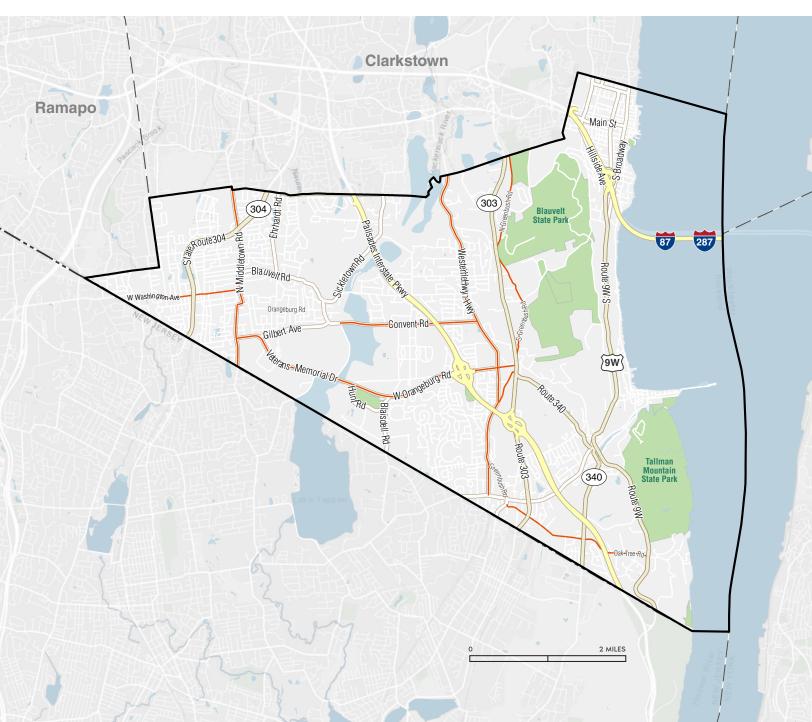


Palisades Interstate Parkway Signage © AKRF

Figure 4-1 **Orangetown Roadway Network** 







#### **Arterial Roadways**

Arterial roadways, defined as high-capacity roadways that connect local and collector roads with major highways, within Orangetown include US Route 9W, NY State Route 303, NY State Route 304, and NY State Route 340.

#### **US Route 9W**

US Route 9W connects Orangetown with New Jersey to the south and Albany to the north, primarily traversing northsouth. Connections to other major roadways in Orangetown include I-87/287, Palisades Interstate Parkway, NY State Route 340, and Old Mountain Road. South of Sparkill, Route 9W also serves as NY State Bike Route 9. Route 9W has a speed limit of 40 mph and is under the jurisdiction of NYSDOT. According to NYSDOT, Route 9W carries approximately 9,300 vehicles per day south of Sparkill and 16,000 vehicles per day north of Sparkill (2019 AADT) within the Town of Orangetown.



US Route 9W © AKRF

#### **NY State** Route 303

NY State Route 303 connects Orangetown with New Jersey to the south and Clarkstown to the north, primarily traversing north-south. Connections to other major roadways in the vicinity of Orangetown include I-87/287, Palisades Interstate Parkway, NY State Route 340, and NY State Route 59. Route 303 has a speed limit of 40 mph and is under the jurisdiction of NYSDOT. According to NYSDOT, Route 303 carries approximately 19,000 vehicles per day south of the Palisades Interstate Parkway and 22,000 vehicles per day north of Orangeburg (2019 AADT) within the Town of Orangetown.



#### NY State Route 304

NY State Route 304 connects Orangetown with New Jersey to the south and Clarkstown to the north, primarily traversing north-south. Connections to other major roadways in the vicinity of Orangetown include I-87/287, Palisades Interstate Parkway, Middletown Road, and NY State Route 59. Route 304 has a speed limit of 55 mph and is under the jurisdiction of NYSDOT. According to NYSDOT, Route 304 carries approximately 18,000 vehicles per day south of Middletown Road and 24,000 vehicles per day north of Middletown Road (2019 AADT) within the Town of Orangetown.

#### NY State Route 340

NY State Route 340 traverses north-south within the Town of Orangetown, connecting Orangetown with New Jersey to the south and Route 303 to the north. Connections to other major roadways in the vicinity of Orangetown include US Route 9W and Oak Tree Road. Route 340 has a speed limit of 45 mph and is under the jurisdiction of NYSDOT. According to NYSDOT, Route 340 carries approximately 3,900 vehicles per day south of Valentine Avenue and 8,200 vehicles per day (2019 AADT) north of Kings Highway within the Town of Orangetown.



NY State Route 340 at the junction with Route 303, Orangeburg © Wikipedia

#### **Collector Roads**

Collector roads, defined as low and moderate capacity roadways that connect local roadways with arterial roadways, within Orangetown include Convent Road, Greenbush Road, Oak Tree Road, Orangeburg Road, Western Highway, and Middletown Road.

#### **Convent Road**

Convent Road traverses east-west within the Town of Orangetown, connecting Blauvelt and Orangeburg with Pearl River. Connections to other major roadways include Western Highway and Sickletown Road. Destinations served by Convent Road include Rockland

Psychiatric Center, Broadacres Golf Club, and Blue Hill Golf Course. Convent Road has a speed limit of 30 mph and is under the jurisdiction of Rockland County. According to NYSDOT, Convent Road carries approximately 3,000 vehicles per day (2019 AADT) within the Town of Orangetown.

#### **Greenbush Road**

Greenbush Road, also known as North Greenbush Road and South Greenbush Road, traverses north-south within the Town of Orangetown, connecting Clarkstown to the north and Orangeburg to the south. Connections to other major roadways include NY State Route 303, Orangeburg Road, and NY State Route 59. Destinations served by Greenbush Road include Orangeburg Commons, warehousing in Orangeburg, and Palisades Center in Clarkstown. Greenbush Road has a speed limit of 30 mph and is under the jurisdiction of Rockland County. According to NYSDOT, Greenbush Road carries approximately 900 vehicles per day (2019 AADT) within the Town of Orangetown.

#### Oak Tree Road

Oak Tree Road traverses east-west within the Town of Orangetown, connecting Palisades and Tappan. Connections to other major roadways include US Route 9W, NY State Route 340, and NY State Route 303. Destinations served by Oak Tree Road include the Esplanade at Palisades independent senior living and commercial and industrial land uses in Tappan. Oak Tree Road has a speed limit of 30 mph and is under the jurisdiction of the Town of Orangetown. According to NYSDOT, Oak Tree Road carries approximately 8,000 vehicles per day (2019 AADT) within the Town of Orangetown.

#### Orangeburg Road

Orangeburg Road, also known as West Orangeburg Road and Veterans Memorial Drive, traverses east-west within the Town of Orangetown, connecting Orangeburg and Pearl River. Connections to other major roadways include NY State Route 303 and the Palisades Interstate Parkway. Destinations served by Orangeburg Road include Dominican University, Tappan Zee High School, Rockland Psychiatric Center, Broadacres Golf Club, Veteran's Memorial Park, Blue Hill Golf Course, Hilton Pearl River, and Blue Hill Plaza. Orangeburg Road has a speed limit of 30 and 45 mph and is under the jurisdiction of Rockland County. According to NYSDOT, Orangeburg Road carries approximately 21,000 vehicles per day east of Blue Hill Road and 17,000 vehicles per day west of Blue Hill Road (2019 AADT) within the Town of Orangetown.

Blue Hill Plaza from Veterans Memorial Drive © AKRF



# Western Highway

Western Highway, also known as Western Highway North, Western Highway South, and Rockland County Route 15, traverses north-south within the Town of Orangetown, connecting Clarkstown to the north and Tappan to the south. Connections to other major roadways include Orangeburg Road, Convent Road, and Old Tappan Road, and West Nyack Road. Destinations served by Western Highway include Dominican College, Tappan Zee High School, St. Dominic's School, and the Dominican Sisters of Blauvelt Convent. Western Highway has speed limits of 30 mph south of Erie Street and 55 mph north of Erie Street and is under the jurisdiction of Rockland County. According to NYSDOT, Western Highway carries approximately 7,000 vehicles per day (2019 AADT) within the Town of Orangetown.

#### Middletown Road

Middletown Road, also known as North Middletown Road and South Middletown Road, traverses north-south within the Town of Orangetown, connecting Nanuet, Clarkstown to the north and Montvale, New Jersey to the south. Connections to other major roadways include Gilbert Avenue, NY State Route 304, and NY State Route 59. Destinations served by Middletown Road include Pearl River Shopping Center and Pfizer Pearl River. Middletown Road has a speed limit of 30 mph and North Middletown Road is under the jurisdiction of Rockland County and South Middletown Road is under the jurisdiction of the Town of Orangetown. According to NYSDOT, South Middletown Road carries approximately 4,800 vehicles per day south of Gilbert Avenue and 3,400 vehicles per day north of Gilbert Avenue (2019 AADT). North Middletown Road carries approximately 17,000 vehicles per day south of the NY State Route 304 interchange and 12,000 vehicles per day north of the NY State Route 304 interchange (2019 AADT) within the Town of Orangetown.

## Washington Avenue

Washington Avenue, also known as East Washington Avenue and West Washington Avenue, traverses east-west within the Hamlet of Pearl River in Town of Orangetown. Connections to other major roadways include North Middletown Road and NY State Route 304. Washington Avenue primarily serves the residential and commercial areas of Pearl River. Washington Avenue has a speed limit of 30 mph east of NY State Route 304 and 25 mph west of NY State Route 304. East Washington Avenue is under the jurisdiction of the Town of Orangetown and West Washington Avenue is under the jurisdiction of the Rockland County. According to NYSDOT, East Washington Avenue carries approximately 2,800 vehicles per day and West Washington Avenue carries approximately 9,100 vehicles per day (2019 AADT) within the Town of Orangetown.





# **Bicycle Infrastructure**

Bicycle infrastructure including on-road bike routes and multiuse paths run throughout Orangetown, primarily along the Hudson River, as seen in Figure 4-2.12

# NY State Bike Route 9

NY State Bike Route 9 is a well-traveled, signed, on-road bicycle route that traverses north-south along US Route 9W from the New Jersey Border to Sparkill, and Ferdon Avenue, Piermont Avenue, and River Road north of Sparkill. Popular with bicyclists from Orangetown and the New York and New Jersey area, Bike Route 9 starts at the George Washington Bridge, traveling north generally along US Route 9W, crossing into Putnam County at the Bear Mountain Bridge, and continuing north to the US-Canadian border. Bike Route 9 also connects with several other NY State Bike Routes north of Dutchess County.

Bike Route 9 passes through Sparkill, Piermont, Grand View, South Nyack, and Nyack.

Multiuse paths support recreation and transportation for activities including walking, biking, running, and wheelchair use.

The Hudson Valley Greenway is a regional trail system composed of several multiuse paths throughout the State along both sides of the Hudson River. The Hudson Valley Greenway multiuse paths in Orangetown include the Hader Grandview Park Trail in Grand View; Joseph B. Clarke Rail Trail in Blauvelt, Orangeburg, Sparkill, and Tappan; Raymond G. Esposito Trail also known as the Old Erie Path in Nyack, Grand View, Piermont, and Sparkill; Tallman Mountain State Park Multiuse Path; and Piermont Trails.

The Mario Cuomo Bridge Path, opened in 2020, crosses the Hudson River and connects Rockland County and Westchester County at Nyack and Tarrytown, respectively.

<sup>2</sup> https://rocklandgov.com/departments/planning/land-use/rockland-riverfront-communities-council/ trail-maps/

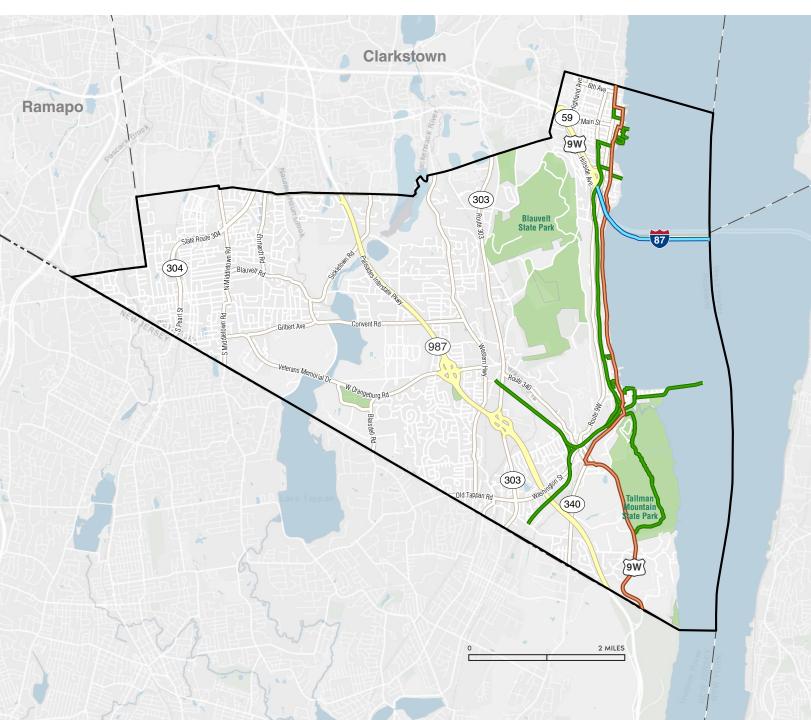


<sup>1</sup> https://rocklandgov.com/files/2316/2672/1961/list-of-designated-greenway-trails-march-2021.pdf

# **Orangetown Bicycle Infrastructure Map**

Orangetown
Greenway Trail
State Bike Route 9
Cuomo Bridge Multiuse Path







Sidewalk, Downtown Pearl River and Park® AKRF

#### **Pedestrian Infrastructure**

In addition to multiuse paths listed above that serve pedestrians, sidewalks are present in downtown and dense residential areas in Nyack, South Nyack, Piermont, Orangeburg, Pearl River, Sparkill, and Tappan.

Throughout Orangetown, sidewalks primarily serve immediate pedestrian destinations and do not provide connectivity between villages and hamlets.

# **Planned Transportation Improvements**

In addition to the existing infrastructure, there are planned transportation improvements by the Town, County, and State that will improve roadway conditions in the Town of Orangetown.

## West Washington Avenue Bridge Over Pascack Brook Replacement<sup>3</sup>

Rockland County is planning to replace the West Washington Avenue Bridge, which carries Rockland County Route 30 over Pascack Brook in Pearl River. The bridge replacement would improve the curvature, alignment, and grade of the roadway, and improve roadway flooding conditions. The construction of the bridge is anticipated to begin in 2023 and will be completed by fall 2024.

# US Route 9W at Oak Tree Road Traffic Signal Replacement<sup>4</sup>

NYSDOT is planning to replace the existing traffic signal at the intersection of US Route 9W and Oak Tree Road in Palisades. The project is currently under development, with construction anticipated to begin in 2027 and be completed by 2028.

#### US Route 9W and NY State Route 340 Repaving<sup>5</sup>

NYSDOT is planning to repave US Route 9W from the New Jersey state line to the Sparkill Viaduct, from Palisades to Sparkill, and NY State Route 340 from the New Jersey state line to NY State Route 303, from Palisades to Orangeburg. The project is currently under development, with construction anticipated to begin in 2023 and completed by 2024.



NY State Route 303, Tappan © AKRF

#### Palisades Interstate Parkway Bridge Rehabilitation<sup>6</sup>

NYSDOT is planning to rehabilitate stone bridges along the Palisades Interstate Parkway within the Towns of Clarkstown, Orangetown, and Stony Point. The project is currently under development, with construction anticipated to begin in 2023 and be completed by 2024.

<sup>3 &</sup>lt;a href="https://rocklandgov.com/departments/highway/highway-drainage-projects-and-constructions/w-washington-bridge/">https://rocklandgov.com/departments/highway/highway-drainage-projects-and-constructions/w-washington-bridge/</a>

<sup>4</sup> https://www.dot.ny.gov/portal/pls/portal/MEXIS\_APP.DYN\_PROJECT\_DETAILS.show?p\_arg\_names=p\_pin&p\_arg\_values=823951

<sup>5</sup> https://www.dot.ny.gov/portal/pls/portal/MEXIS\_APP.DYN\_PROJECT\_DETAILS. show?p\_arg\_names=p\_pin&p\_arg\_values=823956

<sup>6 &</sup>lt;u>https://www.dot.ny.gov/pipbridges</u>

# **Public Transportation Service**

Orangetown is served by NJ Transit operating as Metro-North Railroad commuter rail West of Hudson service (Metro-North), Coach USA operating as Rockland Coaches bus service, Transport of Rockland (TOR) bus service, and the Lower Hudson Transit Link bus service, as shown in Figure 4-3. Public transportation service in Orangetown has limited reliability with common occurrences of service changes and cancellations for rail and bus services.

#### Metro-North Railroad Service

Metro-North commuter rail service is available in Orangetown at the Pearl River station along the Pascack Valley Line. Like all West of Hudson Metro-North Service in Rockland County, commuter rail service originates from Hoboken Terminal in New Jersey as New Jersey Transit. Commuter rail service in Rockland County, north of the New Jersey border, is operated under contract with Metro-North Railroad.

Metro-North connects Orangetown at Pearl River to Hoboken, New Jersey, with connecting service to New York City at Secaucus Junction.

Peak hour service provides up to four trains per hour during the morning and evening peak hours. Off-peak service provides one train per hour or per two hours.



NY Transit Stop, Pearl River © AKRF

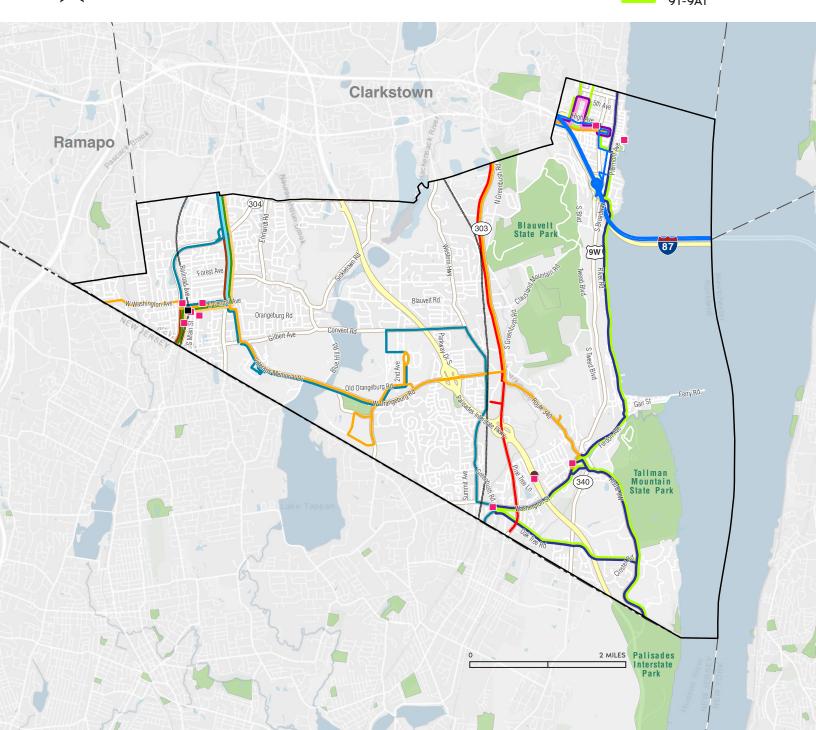
#### **Bus Service**

Coach USA operating as Rockland Coaches, also known as the Red & Tan, provides regular interstate service between Rockland County, Bergen County, and New York City. Commuter bus routes serving Orangetown include routes 9, 9A, 9T, 9TA, 9W, 11T, 11AT, 20, 20T, 49, and 49J.

Lower Hudson Transit Link, also known as Hudson Link, provides intracounty and intercounty commuter bus service between Westchester County and Rockland County across the Governor Mario M. Cuomo Bridge. Hudson Link buses serving Orangetown at Nyack include routes H05 and H07.

Figure 4-3





Transport of Rockland, also known as TOR, provides intracounty service within Rockland County along major corridors, connecting to Red & Tan buses, Hudson Link buses, Metro-North, and New Jersey Transit. TOR intracounty bus routes serving Orangetown include routes 59, 91, 92, 93, and 97.

#### Park & Ride

Park & Ride lots allow commuters to park in the vicinity of commuter stations to take public transportation or carpool. In the New York Metropolitan area, park and ride lots primarily allow commuters to park at commuter rail and bus stations for service to New York City. Available Park & Ride lots in Orangetown include: <sup>7</sup>

- Kings Highway and the Palisades Interstate Parkway no transit service, carpool only
- Nyack, Spear Street Red & Tan 9, 9AT, 9T buses
- Nyack, Catherine Street Red & Tan 9, 9AT, 9T buses; Hudson Link H05 and H07 buses; TOR 59, 91, 92 buses
- **Pearl River Station** Metro-North commuter rail; Red & Tan 11T, 11AT, 20, 20T, 49, 49J buses; TOR 92 bus

# **Parking**

In addition to Park & Ride lots available in Nyack and Pearl River, on-street and off-street parking is available in downtown areas and at shopping centers, with parking lots and garages available primarily in downtown areas.

Within the Town of Orangetown, overnight on-street parking is restricted on all public roadways between November 15 through April 15 every year with the exception of select roadways. Additionally, on-street parking is restricted year-round on select streets in Pearl River, Sparkill, and Tappan.

<sup>7 &</sup>lt;a href="https://rocklandgov.com/departments/public-transportation/commuter-info/park-and-ride-lots/">https://rocklandgov.com/departments/public-transportation/commuter-info/park-and-ride-lots/</a>







Main Street, Sparkill © AKRF

# Goals and Objectives

The goal and objectives related to transportation for Orangetown were developed based on an inventory of the existing transportation systems and public feedback. Residents largely supported active transportation and providing infrastructure for bicyclists and pedestrians where space and demand are present, but also expressed concerns regarding traffic operations/enforcement and truck traffic in the Town.

The goals and objectives included in the 2022 Comprehensive Plan encourage the addition of active transportation infrastructure where possible, applying Complete Street and traffic calming measures to improve roadway safety for all road users, and ensuring that residential and commercial growth considers the addition and routing of truck traffic throughout the Town.

# **Active Transportation**

Active transportation infrastructure, including on-road bike routes and multiuse paths, is well-utilized by Orangetown residents and tourists for recreation and transportation. To better serve the growing demand for active transportation within the Town, strategies to add new infrastructure while improving existing infrastructure are proposed.

Community support is present for adding bicycle lanes along roadways where sufficient roadway width is available; however, most roads in Orangetown do not have the roadway width for bike lanes.

The existing NY State Bike Route 9 traverses US Route 9W for a significant portion, which is a narrow roadway with one lane in each direction and sharp curves and grades. Adding a bicycle lane along US Route 9W is not feasible for a majority of the roadway. Expanding the existing trail system would encourage bicyclists to utilize multiuse paths and as a result reduce conflicts between vehicles and bicycles along on-road bike routes.

Potential locations to enhance or extend the existing trail system include:

- Raymond G. Esposito Trail paved connection to Joseph B. Clarke Rail Trail
- Extend Joseph B. Clarke Rail Trail approximately 1,000 feet south along unused rail lines to connect with the future Northern Valley Greenway at the New York/New Jersey border

Furthermore, Rockland County is conducting a feasibility study for a shared-use path (equivalent to a multiuse path) in Rockland County along the Hudson River using American Rescue Plan Act funding. The path would traverse the Town and could provide an opportunity to extend existing trails further south to New Jersey.

# **Traffic Management**

Traffic management includes strategies to improve traffic control measures, roadway access, operations, and enforcement. There are 33 traffic signals owned and operated by the Town, 19 traffic signals owned and operated by NYSDOT, and 3 private traffic signals. To improve the existing traffic signals by adding improved sensors and "smart signals," collaboration between the Town and NYSDOT is recommended. Furthermore, the Town has undertaken a Town-wide signal improvement project which includes upgrading and replacing existing traffic signals at the following locations:

- Townline Road (CR 42) & Blauvelt Road/Ehrhardt Road
- North Middletown Road (CR 33) & Crooked Hill Road/Veterans Parkway
- Gilbert Avenue (CR 20) & Old Middletown Road
- Veterans Memorial Drive (CR 20) & Gilbert Avenue

#### Traffic Management

- Veterans Memorial Drive (CR 20) & Blue Hill Plaza/Michael Roberts Court
- Veterans Memorial Drive (CR 20) & Blue Hill Plaza/Kevin Riley Street
- Veterans Memorial Drive (CR 20) & Blue Hill Road South
- Veterans Memorial Drive (CR 20) & Blue Hill Road
- Veterans Memorial Drive (CR 20) & Lester Drive/Edgewood Drive
- Gilbert Avenue (CR 20) & South Middletown Road

The traffic signal upgrades include installing enhanced 360 degree video detection at the intersections.

Development within the Town of Orangetown is largely concentrated along New York State Roadways, including NY State Route 303. Limiting and consolidating driveways along major roadways for future development would lessen traffic impacts or improve traffic conditions.

Additionally, the Town of Orangetown continues to utilize strategies such as Complete Streets and traffic calming for all roadway projects in applying the Orangetown Complete Streets Policy, adopted in July 2019 by the Town of Orangetown.

# **Parking**

Based on public feedback, it was noted that parking can be limited in some downtown areas, including the former Village of South Nyack. Efforts to study parking demand and expand the availability of public parking in these areas are recommended, including adding on-street parking where sufficient roadway width is available and conversion of large parking lots into bilevel garages where demand is present.

# **Public Transportation**

Existing public transportation service is limited in the Town of Orangetown, with only one commuter rail station with infrequent off-peak service and limited, unreliable bus service. To better serve residents who commute to work outside of Orangetown to areas such as New York City, New Jersey, and Westchester County, research into expanding public transportation service including ridership demand should be conducted. Additional stops and service routes and improvements to reliability should be explored between the Town and the public transportation providers.

The Town is constructing a commuter parking lot in Sparkill located at 650 Route 340, which will service multiple bus lines within Orangetown. Furthermore, to better service existing and future public transportation, Park & Ride lots should be added and expanded near major commuter stations, including Pearl River and Nyack.

# **Proposed Implementation Strategies**

Based on the existing transportation systems inventory and public feedback during the public engagement process, implementation strategies were developed to address resident concerns. This section identifies several strategies to improve transportation in the Town of Orangetown.



US Route 9W © AKRF

 Add sidewalks and protected on-street bicycle lanes as context-sensitive improvements when funding is available, meeting criteria such as but not limited to sufficient roadway space, demand, in downtown areas and along arterials, and especially where new developments are proposed

Sidewalks provide safe and accessible options for pedestrians and bicyclists to travel within the Town, and improve pedestrian, bicycle, and vehicular safety on roadways. Sidewalks should be at least five feet wide and compliant with the Americans with Disabilities Act (ADA). Bicycle lanes should be protected, where possible, with additional striping, signage, and physical separation from the roadway to reduce conflicts between bicycles and vehicles. Sidewalks and bicycle lanes should be implemented on roadways with sufficient width to utilize roadway shoulders, medians, and excess lane width without removing traffic lanes or utilizing residential laws. Consideration for tree preservation and drainage should be included in implementing new sidewalks and bicycle lanes. New sidewalks and bicycle lanes should be implemented with consideration for demand for walking and bicycling and connections to parks and trails.



Downtown Pearl River © AKRF

Furthermore, new developments in downtown areas with pedestrian activity should include considerations for sidewalks along the site frontage. Town Boards, such as the Planning Board, could require applicants and developers to review the potential to add sidewalks and bicycle lanes along the study roadways and site frontages.

- Expand active transportation infrastructure network by connecting existing trails and converting abandoned rail lines into multiuse paths
- Connect existing multiuse path network from Orangetown south to New Jersey

The Town's existing multi-use paths serve the heavy demand for active transportation and recreation. They also encourage tourism from surrounding areas. Connections with existing trails would provide a cohesive trail network within the Town of Orangetown. For example, paving the Raymond G. Esposito Trail, providing a paved connection to the Joseph B. Clarke Rail Trail, and extending the Joseph B. Clarke Rail Trail along unused rail lines approximately 1,000 feet south, meet the future Northern Valley Greenway which will connect Tenafly, New Jersey to the New York/New Jersey border to provide a cohesive interstate multiuse path network with adjacent municipalities.

 Apply Orangetown Complete Streets Policy to all roadway projects in addition to planning separate Complete Street projects

Complete Streets are designed and operated to prioritize safety, comfort, and access to destinations for all people who use the street. The Orangetown Complete Streets Policy was adopted in July 2019 by the Town to encourage the use of Complete Street policies to provide safe and accessible access for all road users, including pedestrians, bicyclists, motorists, and transit riders. Complete Street strategies include but are not limited to sidewalks, crosswalks, bicycle lanes, trails, and traffic calming. Roadway projects undertaken by the Town will continue to comply with the Orangetown Complete Streets Policy and apply Complete Street strategies. Complete Street projects should also be undertaken by the Town to implement Complete Street strategies in residential and downtown areas. Complete Streets support economic development by helping to create a walkable, vibrant Town with livable neighborhoods.

 Introduce traffic calming in residential areas, including channelizing roadways, adding curb extensions, providing bicycle lanes and sidewalks, and adding traffic circles and roundabouts

The use of speed bumps and speed humps should be limited. Additionally, the Town should collaborate with Waze and other GPS navigation providers on limiting the use of cutthrough routes in the Town.

Similar to adding sidewalks and bicycle lanes, Town boards, such as the Planning Board, could require applicants and developers to review the potential to introduce traffic calming along the adjacent roadways of a development site.



Downtown Pearl River © AKRF

# Collaborate with NYSDOT on upgrading existing traffic signals

Most traffic signals in the Town are owned and maintained by NYSDOT and utilize outdated technology. Traffic signals can be upgraded by adding new "smart signal" sensor technology, including microwave, radar, and video vehicle detection. To upgrade the Town's traffic signals along State roadways, the Town should collaborate with NYSDOT on prioritizing signal upgrades. Traffic signal upgrades can improve traffic operating conditions and travel speeds throughout the Town. Traffic signal upgrades at critical intersections in the Town, such as Western Highway and Orangeburg Road in Orangeburg, should be prioritized. Conversely, the Town and State should consider converting signalized intersections to stop-controlled intersections at locations where traffic volumes do not warrant a traffic signal, such as Clinton Avenue and South Broadway in South Nyack.

 Limit and consolidate driveways along major roadways, including NY State Routes 303, 304, and 340

Consolidating commercial driveways reduces friction along roadways, potentially leading to improvements in traffic operations and roadway safety. This strategy involves partnering with commercial landowners and businesses to combine existing driveways on multiple parcels to create one shared driveway. To implement this strategy, the Zoning Code should be updated to restrict driveway access along the major roadways and to require connections where feasible.

 Develop a truck route map to direct trucks to major roadways instead of cutting through downtown areas, and restrict truck traffic on select local roadways except for local delivery

Increasing truck traffic throughout the Town has led to trucks using local residential roadways as cut-through routes. A Town-wide truck map would route trucks to utilize major roadways and highways instead of local residential roadways. Additionally, truck routes should not be near schools and time-of-day restrictions can be implemented in the vicinity of residential areas. Signage along local residential roadways discourages trucks to utilize these roads for through traffic. The Town of Orangetown is in the process of developing a truck route map.



Highway Underpass © AKRF

Enforce and improve signage for roadway and bridge weight limits

Select roadways and bridges throughout the Town have weight limits due to limitations on the structure and load carrying capacity. Improved enforcement and signage would lessen the load on these roadways and potentially lower maintenance costs.

 Increase parking supply in areas with high parking demand, including South Nyack and Pearl River

Consistent with Complete Streets policies, add on-street parking to roadways in downtown areas where sufficient width is available. Adding on-street parking to wide roadways can also act as traffic calming by reducing excessive roadway width. Convert existing large parking lots to bilevel garages where demand is present.



Complete Streets Diagram. Source: NACTO Urban Street Design Guide

 Collaborate with public transportation providers, including Metro-North Railroad, Rockland Coaches, TOR, and Hudson Link to study, improve, and expand existing public transportation service, including bus stops, routing, frequency, and reliability

Existing public transportation service, including both commuter rail and bus, is limited in the Town. Studying ridership and demand would help the Town and public transportation providers to better understand demand for frequency, routes, and other aspects to better serve the Town. Improvements to intracounty and intercounty bus service may include redrawing bus routes, changes to bus stop locations, increasing peak and/or off-peak service, upgrades to bus stop infrastructure, and improvements for reliability. Improvements to commuter rail service may include increasing peak and/or off-peak service, upgrades to station infrastructure, and enhanced connections to commuter rail stations in other parts of Rockland County, Westchester County, and/or New Jersey.

The Town should consider adding a Town shuttle service between the major transit hubs, such as Nyack, Pearl River, and Sparkill, and residential centers of the Town.

Study, add, and expand Park & Ride lots near major commuter stations

Providing additional parking capacity at commuter stations will encourage commuters to take public transportation. Potential locations for future Park & Ride lots include the Pearl River Metro-North station and Nyack Hudson Link bus stops. Park & Ride lots at Pearl River and Nyack can be utilized on weekends for downtown visitors. Studies should be conducted to determine parking demand and feasibility of expanding or adding new Park & Ride lots.

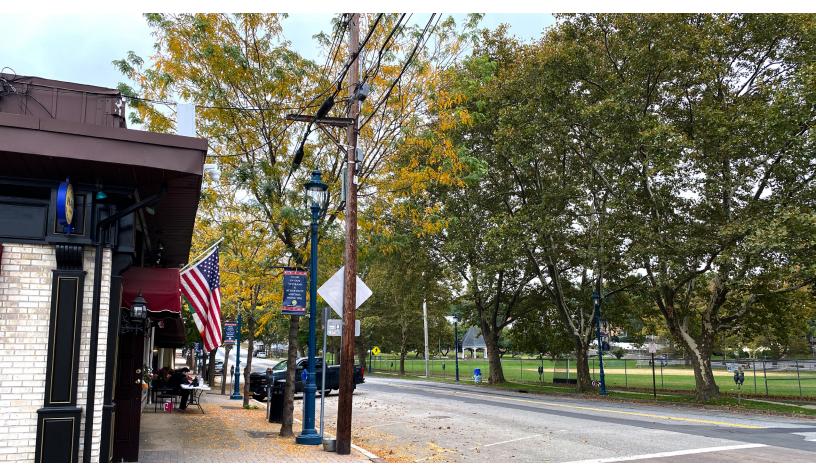


**Existing Demographic and Socioeconomic Conditions** 

Existing Economic Development and Downtown Revitalization Strategies and Programs

Community Views on Economic Development and Downtown Revitalization

Vision, Goals, and Objectives



Downtown Pearl River © AKRF

# Introduction

This chapter examines the existing demographic and socioeconomic conditions of the Town. The demographic and socioeconomic data presented in this chapter represents trends between 2000 and 2020 that provide insight on the resident population and local economics. The data and figures in this chapter illustrate information about Orangetown's population – it's housing type and value, employment, income, educational attainment, age, commuting patterns, and racial and ethnic makeup. This chapter also reviews two recent studies undertaken in Orangetown that offer insight into strategies that have been considered to promote economic development. Finally, it outlines goals, objectives, and strategies for the Town to consider, as it seeks to enhance the Town's economic base while protecting and enhancing the qualities of downtown areas of the Town, especially within the Town's Hamlets.

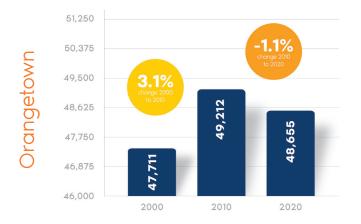
# Existing Demographic and Socioeconomic Conditions

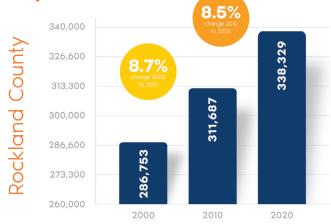
This section describes the existing demographic and socioeconomic conditions in the Town of Orangetown.

# **Population**

According to the U.S. Census, the Town's population grew approximately 3 percent between 2000 and 2010. Following that decade of growth, the population decreased by an average of 0.11 percent each year between 2010 and 2020, for a total decline of approximately 1.1 percent from 49,212 residents in 2010 to 48,655 residents in 2020 (see **Figure 5-1**).<sup>1 2</sup> In comparison, the rate of growth in Rockland County's population between 2000 and 2010 was 8.7 percent, increasing from 286,753 to 311,687 residents (see **Figure 5-1**). While Orangetown's population shrank from 2010 to 2020, as noted above, Rockland County's population increased over the same period, experiencing 8.5 percent growth, from 311,687 to 338,329 residents.







Notes: Table SE:T1 (2000, 2010), SE:T002 (2020). Sources: U.S. Census Bureau, Decennial Census 2000, 2010, 2020.

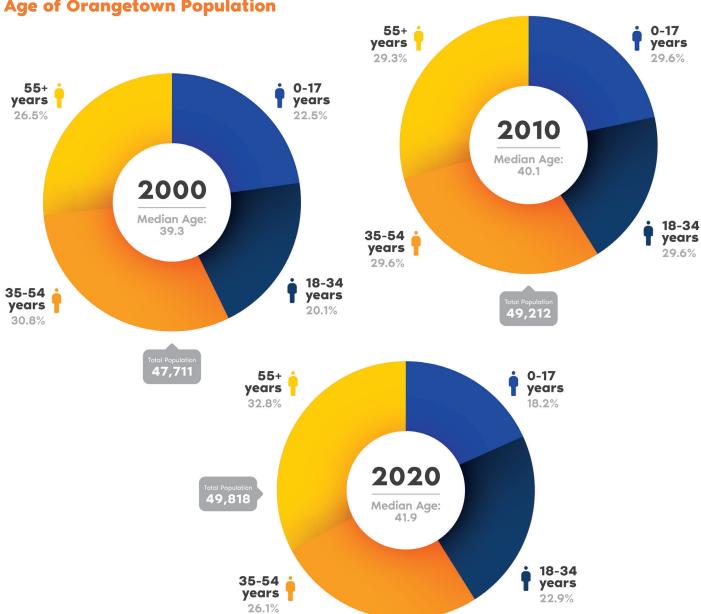
<sup>1</sup> The data in this section is sourced, to the maximum extent possible, from the 2000, 2010, and 2020 U.S. Census Bureau Decennial Census data. Where Decennial Census data was not available, 2006–2010 American Community Survey (ACS) 5-Year Estimate data and 2016-2020 ACS 5-Year Estimate data is used. ACS is a demographics survey program conducted by the U.S. Census Bureau. ACS data are collected each month, via a survey sent to a sample (approximately 3.5 million) of addresses in 50 states, Washington D.C., and Puerto Rico.

<sup>2</sup> More detailed socioeconomic information once collected via the long-form questionnaire, part of the Decennial Census, has been collected by the American Community Survey since 2005. <a href="https://www.census.gov/history/www/programs/demographic/american\_community\_survey.html">https://www.census.gov/history/www/programs/demographic/american\_community\_survey.html</a>.

## **Population**

Between 2000 and 2020<sup>3</sup>, changes in Orangetown's resident population did not occur proportionately across all age groups. As show in **Figure 5-2**, the population of younger residents (those aged 34 and under), decreased slightly from 2000 to 2010 (42.6 to 41.0 percent), and then remained consistent from 2010 to 2020 (41.1 percent). The population of middled-aged residents (those aged 35 to 54) remained relatively the same from 2000 to 2010 (30.8 and 29.6 percent), but declined from 2010 to 2020 (29.6 dropping to 26.1 percent).

Figure 5-2 **Age of Orangetown Population** 



**Notes:** Table SE:T8 (2000, 2010), SE:A01001 (2020). **Sources:** U.S. Census Bureau, Decennial Census 2000, 2010, 2016-2020 ACS 5-Year Estimates.

<sup>3 2020</sup> refers to the U.S. Census 2016-2020 ACS 5-Year Estimates.

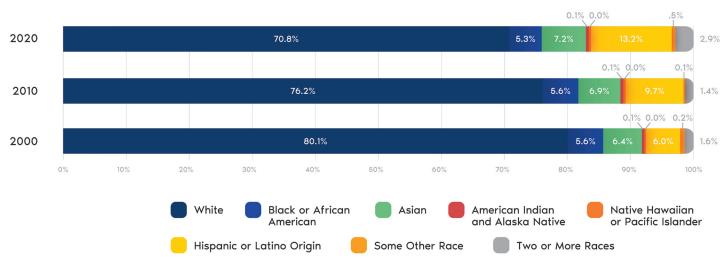
## **Population**

In comparison, the Town's older population (those aged 55 and over) increased from 2000 to 2020. In 2000, residents aged 55 and over comprised 26.5 percent of the Town's total population. In 2010, this cohort had increased to comprise 29.3 percent of the population, and by 2020, this cohort was estimated to comprise 32.8 percent of the population. This trend indicates that Orangetown residents are aging in place.

# **Racial Demographics**

According to the U.S. Census, the population of Orangetown is predominantly White, however that percentage has been declining. In 2000, 80.1 percent of Orangetown's residents identified as White, declining to 76.2 percent in 2010, and 70.8 percent in 2020 (see **Figure 5-3**). Over that same period, the Town's population diversified. Orangetown's population of Hispanic and Latino individuals increased from 2000 to 2010 (from 2,873 to 4,782) and again from 2010 to 2020 (from 4,782 to 6,428). In 2000, Hispanic and Latino individuals made up just 6.0 percent of the Town's population, but by 2020 made up 13.2 percent, an increase of over 100 percent in a period of 20 years. During the 2000 to 2020 period, the proportion of the Town's population composed of other racial and ethnic groups, such as Black or African American (ranging from 5.3 to 5.6 percent of total population), Asian (ranging from 6.4 to 7.2 percent of total population), and Two or More races (ranging from 1.4 to 2.9 percent of total population), remained relatively stable.





**Notes:** Table SE:T17 (2000), SE:T52 (2010), SE:T003 (2020). **Sources:** U.S. Census Bureau, Decennial Census 2000, 2010, 2020.

# Racial Demographics

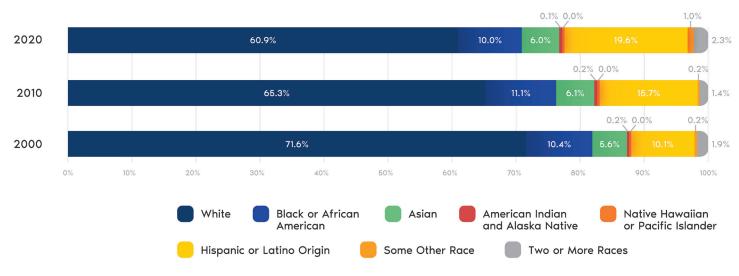
Demographic trends observed in Orangetown between 2000 and 2020 were generally similar to those of Rockland County as a whole (see **Figure 5-4**). As with Orangetown, Rockland County saw a decline in White residents (as a percentage of total population) from 71.6 percent in 2000 to 60.9 percent in 2020. During that same period, Hispanic or Latino residents increased from 10.1 percent of the population in 2000, to 19.6 percent of the population in 2020 (a near doubling in proportion, similar to Orangetown's increase over the same period). While the demographic makeup of Orangetown is similar to that of Rockland County, the County is overall more diverse (e.g., 60.9 percent of County residents identified as White in 2020, compared to 70.8 percent of Orangetown residents; 10.0 percent of County residents identified as Black or African American in 2020, compared to 5.3 percent of Orangetown residents).

# Potential Environmental Justice Areas

Potential Environmental Justice Areas (PEJAs) are U.S. Census block groups of 250 to 500 households each that, in the Census, had populations that met or exceeded at least one of the following statistical thresholds: (1) At least 54.42 percent of the population in an urban area reported themselves to be members of minority groups; (2) At least 26.28 percent of the population in a rural area reported themselves to be members of minority groups; or (3) At least 22.82 percent of the population in an urban or rural area had household incomes below the federal poverty level. Residents of PEJAs may experience a disproportionate burden of adverse environmental impacts.<sup>4</sup> South Nyack, which was recently absorbed by the Town of Orangetown, has three PEJAs (Census block groups 15000US360870132003, 15000US360870131004, and 1500US360870131001).

Figure 5-4

Population Trends by Race, Rockland County



**Notes:** Table SE:T17 (2000), SE:T52 (2010), SE:T003 (2020). **Sources:** U.S. Census Bureau, Decennial Census 2000, 2010, 2020.

<sup>4</sup> Maps & Geospatial Information Systems (GIS) Tools for Environmental Justice, <a href="https://www.dec.ny.gov/public/911.html">https://www.dec.ny.gov/public/911.html</a> (accessed August 30, 2022).

#### **Household Income**

In 2000, the median household income in Orangetown was \$112,693, just 3.7 percent higher than the \$108,686 median household income of Rockland County (see Table 5-1).5 In the years since, the median household income of the Town and the County has diverged further: In 2010,6 the median household income in the Town was \$107,199, 10.6 percent higher than the \$96,944 median household income of the County, and in 2020, the median household income of the Town was \$121,593, 28.2 percent higher than the \$94,840 median household income of the County.

Table 5-1 Median Household Income, Orangetown and Rockland County

	2000	2010	2020
Orangetown	\$112,693	\$107,199	\$121,593
Rockland County	\$108,686	\$96,944	\$94,840

Notes: Table SE:T93 (2000), SE:A14006 (2010, 2020). All income has been inflated to 2020 dollars. Sources: U.S. Census Bureau, Decennial Census 2000, 2006-2010 ACS 5-Year Estimates, 2016-2020 ACS 5-Year Estimates.

> Similar to trends observed regarding median household income, average household income of Orangetown was 4.8 percent higher than that of Rockland County in 2000. That difference continued to grow: In 2010 Orangetown's average household income was 10.6 higher than that of the County, and in 2020 it was 26.9 percent higher (see Table 5-2).

Table 5-2 Average Household Income, Orangetown and Rockland County

	2000	2010	2020
Orangetown	\$142,854	\$136,991	\$159,891
Rockland County	\$136,292	\$123,862	\$126,046

Notes: Table SE:T96 (2000), SE:A14008 (2010, 2020). All income has been inflated to 2020 dollars. Sources: U.S. Census Bureau, Decennial Census 2000, 2006-2010 ACS 5-Year Estimates, 2016-2020 ACS 5-Year Estimates.

> Alongside the increase in median household income since 2000, the Town has also experienced growth in the proportion of higher-earning households (see Table 5-3). In 2000, 32.6 percent of households earned \$100,000 or more, while in 2020 it was estimated that 57.6 percent of households earned \$100,000 or more. While in 2000 just 6.6 percent of households in Orangetown earned \$200,000 or more, by 2020 the percentage of households earning \$200,000 or more grew to 28.4 percent.

All income has been inflated to 2020 dollars.

<sup>6 2010</sup> refers to the U.S. Census Bureau 2006-2010 ACS 5-Year Estimates.

Table 5-3 **Households by Income, Orangetown** 

	2000		2010		2020	
<\$25,000	2,569	14.8%	1,984	12.1%	1,603	9.1%
\$25,000 to \$49,999	3,596	20.7%	2,322	14.1%	1,929	10.8%
\$50,000 to \$74,999	2,953	17.0%	2,496	15.1%	2,116	11.8%
\$75,000 to \$99,999	2,588	14.9%	2,163	13.1%	1,909	10.7%
\$100,000 to \$149,999	3,323	19.1%	3,319	20.2%	2,860	16.1%
\$150,000 to \$199,999	1,197	6.9%	1,948	11.8%	2,341	13.1%
\$200,000+	1,146	6.6%	2,223	13.5%	5,069	28.4%
Total Households	17,372	100%	16,455	100%	17,827	100%

Notes: Table SE:T92 (2000), SE:A14001 (2010, 2020). Percentages may not total 100% due to rounding. Income levels are in nominal dollars.

Sources: U.S. Census Bureau, Decennial Census 2000, 2006-2010 ACS 5-Year Estimates, 2016-2020 ACS 5-Year Estimates.

# **Employment**

As shown in **Table 5-4**, according to 2016-2020 ACS 5-Year Estimates, approximately 2.9 percent of the labor force in Orangetown was unemployed in 2020, a rate similar to Rockland County's 3.4 percent unemployment rate the same year.<sup>7</sup> According to the 2000 U.S. Census, and 2006-2010 ACS 5-Year Estimates, unemployment in Orangetown increased from 2.0 percent to 3.3 percent between 2000 and 2010. That shift might be explained by the economic recession in the late 2000s. According to 2016-2020 ACS 5-Year Estimates, unemployment rates in Orangetown did not decline to pre-recession levels by 2020. Over 33 percent of Orangetown residents aged 16 and over were not in the workforce in 2020, according to 2016-2020 ACS 5-Year Estimates. This category is comprised of individuals not actively looking for work. The estimate for Orangetown is generally consistent with Rockland County, which had an estimated 36.4 percent not in the workforce during the same period.<sup>8</sup>

<sup>7</sup> U.S. Census Bureau, 2016-2020 ACS 5-Year Estimates.

<sup>8</sup> U.S. Census Bureau, 2016-2020 ACS 5-Year Estimates.

Table 5-4

Employment Status, Population 16 Years and Older, Town of Orangetown

	2000		20	10	2020	
Population 16+	38,127	100.0%	38,671	100.0%	42,052	100.0%
In Labor Force	25,000	65.6%	24,204	62.6%	27,987	66.6%
Civilian Labor Force	24,993	65.6%	24,164	62.5%	27,926	66.4%
Employed	24,215	63.5%	22,895	59.2%	26,688	63.5%
Unemployed	778	2.0%	1,269	3.3%	1,238	2.9%
Armed Forces	7	0.0%	40	0.1%	61	0.1%
Not in Labor Force	13,127	34.4%	14,467	37.4%	14,065	33.4%

Notes: Table SE:T69 (2000), Table SE:A17002 (2010, 2020). Percentages may not total 100% due to rounding. Sources: U.S. Census Bureau, Decennial Census 2000, 2006-2010 ACS 5-Year Estimates, 2016-2020 ACS 5-Year Estimates.

Orangetown residents are employed in a variety of industries and occupations. As seen in **Table 5-5**, the largest employment industry is Educational Services, and Health Care and Social Assistance, which comprised 30.7 percent of total jobs in 2020. This was an increase from 2010, when the same industry comprised 28.6 percent of jobs for Orangetown residents. In 2020, other major employment industries of Orangetown residents included: Professional, Scientific, and Management and Administrative and Waste Management Services (13.1 percent); Retail Trade (8.8 percent); Finance and Insurance, and Real Estate and Rental and Leasing (8.4 percent); Arts, Entertainment, and Recreation, and Accommodation and Food Services (7.7 percent); and Construction (6.6 percent). In 2020, these largest six industries employed 75.3 percent of the workforce in Orangetown.

Commercial storefronts on Route 303, Tappan © AKRF

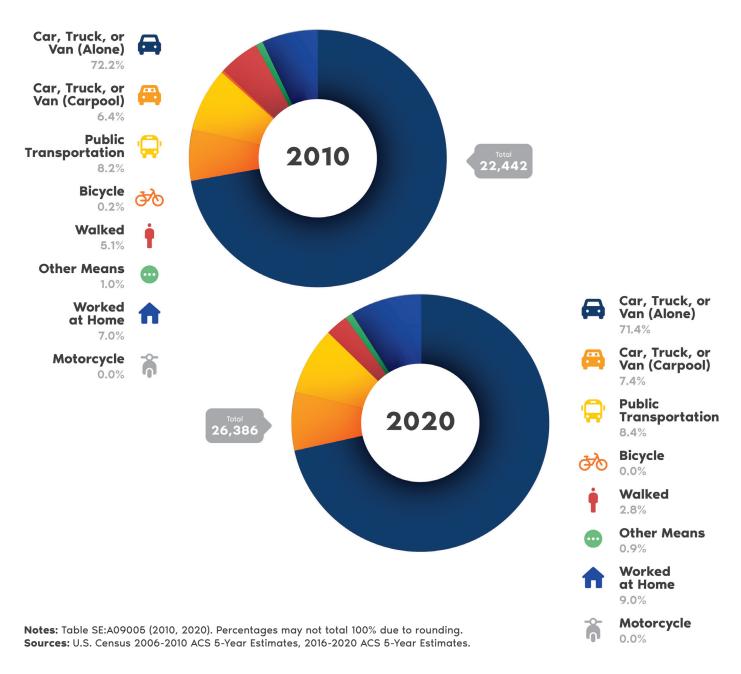
Table 5-5 Industry by Occupation for Employed Civilian Population 16 Years and Over

Industry	2010		20	)20
Agriculture, Forestry, Fishing and Hunting, and Mining	21	0.1%	25	0.1%
Construction	1,562	6.8%	1,764	6.6%
Manufacturing	1,313	5.7%	1,546	5.8%
Wholesale Trade	863	3.8%	638	2.4%
Retail Trade	2,468	10.8%	2,349	8.8%
Transportation and Warehousing, and Utilities	707	3.1%	787	2.9%
Information	936	4.1%	883	3.3%
Finance and Insurance, and Real Estate and Rental and Leasing	1,770	7.7%	2,248	8.4%
Professional, Scientific, and Management and Administrative and Waste Management Services	2,540	11.1%	3,484	13.1%
Educational Services, and Health Care and Social Assistance	6,548	28.6%	8,194	30.7%
Arts, Entertainment, and Recreation, and Accommodation and Food Services	2,026	8.8%	2,065	7.7%
Other Services, Except Public Administration	1,005	4.4%	1,186	4.4%
Public Administration	1,136	5.0%	1,519	5.7%
Total	22,895	100%	26,688	100%

Notes: Table SE:A17004 (2010, 2020). Percentages may not total 100% due to rounding. Sources: U.S. Census Bureau, 2006-2010 ACS 5-Year Estimates, 2016-2020 ACS 5-Year Estimates.

As of 2020, 78.8 percent of Orangetown residents commuted to work by Car, Truck, or Van. The majority of residents commuted alone (71.4 percent) while a small amount (7.4 percent) carpooled (see Figure 5-5). This was a slight increase in carpooling from 2010, when just 6.4 percent of residents carpooled and 72.2 percent traveled alone by Car, Truck, or Van. In 2020, public transportation was used by 8.4 percent of the workforce, while 2.8 percent walked to work.

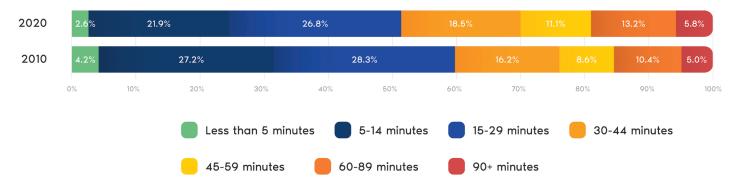
Figure 5-5 Means of Transportation to Work for Employed Population 16 Years and Over



As shown in Figure 5-6, according to 2006-2010 and 2016-2020 ACS 5-Year Estimates, in 2010 and 2020 the majority of residents in Orangetown commuted 29 minutes or less to work (59.7 percent in 2010, and 51.3 percent in 2020). Longer commutes to work have risen slightly among residents since 2010, when 15.4 percent of residents commuted 60 minutes or more to work. As of 2020, 19 percent of residents commuted 60 minutes or greater to their place of employment.

Figure 5-6

Travel Time to Work for Employed Population 16 Years and Over



**Notes:** Table SE:A09002 (2010, 2020). Percentages may not total 100% due to rounding. **Sources:** U.S. Census Bureau 2006-2010 ACS 5-Year Estimates, 2016-2020 ACS 5-Year Estimates.

In 2019, 16.9 percent of residents worked in the Town, compared to a slightly higher proportion of residents (19.3 percent) in 2010 (see **Table 5-6**). A similar proportion of residents work in Manhattan (17 percent in 2019, and 17.3 percent in 2010). Another significant employment locale for residents is Clarkstown, a nearby town in Rockland County (10.7 percent in 2019, and 11.1 percent in 2010). In 2019, 10.2 percent of residents worked in New York City boroughs other than Manhattan (compared to 9.5 percent in 2010).

Pearl River © AKRF



Table 5-6 **Location of Employment of Orangetown Residents** 

Location of Employment	2010	2019
Manhattan borough (Manhattan, NY)	17.3%	17.0%
Orangetown town (Rockland, NY)	19.3%	16.9%
Clarkstown town (Rockland, NY)	11.1%	10.7%
Ramapo town (Rockland, NY)	4.6%	4.9%
Bronx borough (Bronx, NY)	2.8%	3.8%
Brooklyn borough (Brooklyn, NY)	4.7%	3.4%
Queens borough (Queens, NY)	2.0%	3.0%
Greenburgh town (Westchester, NY)	1.8%	2.3%
White Plains city (Westchester, NY)	1.4%	1.5%
Yonkers city (Westchester, NY)	1.4%	1.5%
All Other Locations	33.5%	35.0%
Total	100%	100%

**Notes:** Percentages may not total 100% due to rounding. The most recent year of employment data available was for 2019. **Sources:** Longitudinal Employer Household Survey, On the Map, Primary Jobs, 2010, 2019.

## **Educational Attainment**

As shown in **Table 5-7**, educational attainment levels in Orangetown have increased since 2000. The percentage of the population with less than a high school education has dropped from 9.9 percent in 2000 to an estimated 8.1 percent in 2020. Similarly, the percentage of residents with only a high school education has dropped from 21.8 percent in 2000 to an estimated 15.9 percent in 2020.

Tappan Zee High School © AKRF



Table 5-7 **Educational Attainment for Population 25 Years and Over** 

	2000		2010		2020	
Less than HS	3,262	9.9%	2,383	7.6%	2,845	8.1%
HS Graduate	7,215	21.8%	6,756	21.7%	5,604	15.9%
Some College	8,355	25.2%	7,426	23.8%	7,048	20.1%
Bachelor's Degree	8,157	24.6%	7,926	25.4%	10,093	28.7%
Master's/Professional Degree or Above	6,116	18.5%	6,674	21.4%	9,550	27.2%
Total Population 25+	33,105	100%	31,165	100%	35,140	100%

Notes: Table SE:T40 (2000), SE:A12001 (2010, 2020). Percentages may not total 100% due to rounding. Sources: U.S. Census Bureau, Decennial Census 2000, 2006-2010 ACS 5-Year Estimates, 2016-2020 ACS 5-Year Estimates.

The percentage of the population achieving higher educational levels has similarly increased over the same timeframe: in 2000, 43.1 percent of the population had achieved a bachelor's degree or higher, compared to an estimated 55.9 percent of the population in 2020.

# **Housing**

The majority of housing in Orangetown is owner-occupied (see **Table 5-8)**, which is typical of suburban areas dominated by single-family housing. Owner-occupancy rates ranged from a low of 71.2 percent in 2000 to a high of 72.8 percent in 2010 (in 2020, the owner-occupancy rate was in between the 2000 and 2010 rates), demonstrating a relatively consistent owner-occupancy rate in the Town over the past two decades.

Table 5-8 **Housing Tenure** 

	2000		2010		2020	
Owner Occupied Housing Units	12,337	71.2%	11,987	72.8%	12,886	72.3%
Renter Occupied Housing Units	4,993	28.8%	4,468	27.2%	4,941	27.7%
Total Occupied Housing Units	17,330	100%	16,455	100%	17,827	100%

Notes: Table SE:T126 (2000), SE:A10060 (2010, 2020).

Sources: U.S. Census Bureau, Decennial Census 2000, 2006-2010 ACS 5-Year Estimates, 2016-2020 ACS 5-Year Estimates.

## Housing

Homeowner vacancy rates in Orangetown have historically been, and currently remain, relatively low (see **Table 5-9**). The vast majority of the Town's housing stock was occupied in 2000 (97.2 percent), 2010 (94.0 percent), and 2020 (94.1 percent). These low vacancy rates suggest the ability of the Town to absorb additional housing. This is further supported by the observation that residents are aging in place (see **Figure 5-2**).

Table 5-9 **Housing Occupancy** 

	2000	2010	2020
Percent Occupied	97.2%	94.0%	94.1%
Percent Vacant	2.8%	6.0%	5.9%

Notes: Table SE:T155 (2000), SE:A10044 (2010, 2020).

Sources: U.S. Census Bureau, Decennial Census 2000, 2006-2010 ACS 5-Year Estimates, 2016-2020 ACS 5-Year Estimates.

The majority of housing in Orangetown is single-family residential (see **Table 5-10**), ranging from 67.2 percent in 2000, to 67.9 percent in 2010, and 67.4 percent in 2020. Housing structures containing 10 or more housing units are less common in the Town, and made up just 13.5 percent of all housing units in 2020.

Table 5-10

Housing Units in Structure

Number of Units	20	00	2010		2020	
1	11,995	67.2%	11,883	67.9%	12,768	67.4%
2	1,297	7.3%	1,147	6.6%	1,300	6.9%
3 to 4	1,220	6.8%	983	5.6%	1,271	6.7%
5 to 9	1,062	6.0%	1,161	6.6%	1,095	5.4%
10 to 19	461	2.6%	384	2.2%	875	4.6%
20 to 49	667	3.7%	754	4.3%	765	4.0%
50 or more	1,098	6.2%	1,007	5.8%	923	4.9%
Mobile Home	42	0.2%	184	1.1%	20	0.1%
Total Housing Units	17,827	100%	17,503	100%	18,947	100%

Notes: Table SE:T159 (2000), SE:A10032 (2010, 2020).

Sources: U.S. Census Bureau, Decennial Census 2000, 2006-2010 ACS 5-Year Estimates, 2016-2020 ACS 5-Year Estimates.

## Housing

Household size in Orangetown remained relatively consistent between 2010 and 2020. In 2010, the average household size in Orangetown was 2.6, and in 2020 it was 2.7 persons.<sup>9</sup> As seen in **Table 5-11,** households of 1 to 4 persons made up 89 percent of all households in the Town in 2010, and 89.5 percent of all households in the Town in 2020.

Table 5-11 **Household Units by Household Size** 

	2010		20	20
1-Person Household	4,519	27.5%	4,659	26.1%
2-Person Household	4,869	29.6%	5,448	30.6%
3-Person Household	2,478	15.1%	2,737	15.4%
4-Person Household	2,767	16.8%	3,099	17.4%
5-Person Household	1,247	7.6%	1,265	7.1%
6-Person Household	302	1.8%	404	2.3%
7-or-more Person Household	273	1.7%	215	1.2%
Total Occupied Households	16,455	100%	17,827	100%

**Notes:** Table SE:A10024 (2010, 2020). Percentages may not total 100% due to rounding. **Sources:** U.S. Census Bureau 2006-2010 ACS 5-Year Estimates, 2016-2020 ACS 5-Year Estimates.

# ESRI Tapestry Segmentation<sup>10</sup>

Esri Tapestry Segmentation is a tool that classifies neighborhoods into 67 unique segments, based on demographics and socioeconomic characteristics. The tool offers a macro-level description of the type of households living within a study area. Esri classifies the top five household types in Orangetown as "Pleasantville" (25.7%), "Savvy Suburbanite" (17.4%), "Top Tier" (13.5%), "Urban Chic" (11.2%), and "Golden Years" (9.8%). In total, these households make up nearly 80 percent of all Orangetown households. A brief description by Esri of each household type is provided below.

<sup>9</sup> U.S. Census Bureau 2006-2010 ACS 5-Year Estimates, 2016-2020 ACS 5-Year Estimates.

<sup>10</sup> Descriptions and socioeconomic traits provided by Esri (<a href="https://www.esri.com/en-us/arcgis/products/data/data-portfolio/tapestry-segmentation">https://www.esri.com/en-us/arcgis/products/data/data-portfolio/tapestry-segmentation</a>)

Pleasantville 27.5%

"Pleasantville" communities are situated principally in older housing in suburban areas in the Northeast. Typical households are older couples who have been in their homes for many years, empty nesters, couples with adult children living at home. Families within this demographic tend to own single-family homes and have dual incomes. As consumers, they tend to have higher incomes, home values, and net worth.

#### **Socioeconomic Traits**

- Education: 66 percent college educated, 37 percent with a bachelor's degree or higher.
- Higher labor force participation rate at 67 percent; higher proportion of households with two or more workers.
- Many professionals in finance, information/ technology, education, or management.
- Median household income denotes affluence, with income primarily from salaries, but also from investments or Social Security and retirement income.



Residential Housing, Blauvelt © AKRF

Savvy
Suburbanite
17.4%

"Savvy Suburbanites" are generally well educated, well read, and well capitalized. Families include empty nesters and households with adult children at home. Savvy Suburbanites reside in older neighborhoods outside the urban core where they have access to good restaurants and cultural amenities.

#### **Socioeconomic Traits**

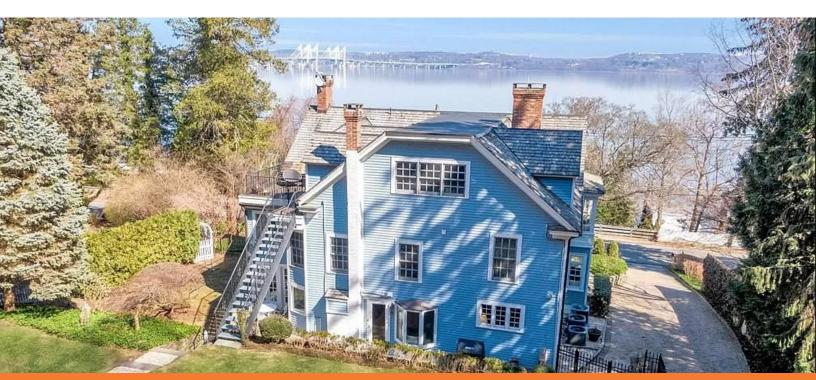
- Education: 50.6 percent college graduates; 77.6 percent with some college education.
- Higher labor force participation rate at 67.9 percent with proportionately more two-worker households at 62.2 percent.

Top Tier **13.5%** 

"Top Tier" is the wealthiest Tapestry market, with incomes more than three times the U.S. household income. They tend to be highly educated professionals with high purchasing power.

#### **Socioeconomic Traits**

- Top Tier is a highly educated, successful consumer market: more than one in three residents has a postgraduate degree.
- Annually, they earn more than three times the U.S. median household income, primarily from wages and salary, but also self-employment income and investments.



**Upper Grandview © AKRF** 

Urban Chic **11.2%** 

"Urban Chic" households are typically well-educated professionals. Half of all households are occupied by married-couple families and about 30 percent are singles, with a median age of 43 years.

#### **Socioeconomic Traits**

- Well educated, more than 65 percent of residents hold a bachelor's degree or higher.
- Labor force participation is higher at 68 percent.
- Residents are employed in white collar occupations—in managerial, technical, and legal positions.
- Nearly 40 percent of households receive income from investments.

Golden Years
9.8%

Independent, active seniors nearing the end of their careers or already in retirement best describes "Golden Years" residents. This market is primarily singles living alone or empty nesters. Those still active in the labor force are employed in professional occupations.

#### **Socioeconomic Traits**

- Of Golden Years residents, 22 percent have graduate or professional degrees, 28 percent have bachelor's degrees, and 25 percent have some college credits.
- Labor force participation is somewhat low at 56 percent, due to residents reaching retirement.
- Median household income is higher in this market, more than \$71,000. Although
  wages still provide income to nearly two out of three households, earned income is
  available from investments, Social Security benefits, and retirement income.



Brightview Senior Living, Lake Tappan © AKRF

#### **ESRI Business Summary**

Esri Business Summary is a tool that summarizes businesses for specified North American Industry Classification System (NAICS) summary categories by geography and includes the total number of businesses and total number of employees for a study area. **Table 5-12** compiles data from the Esri Business Summary for Orangetown, including the number of businesses, and number of employees of those businesses, as of November 2021. The greatest proportions of employees working in Orangetown are in the health care and social assistance industry (17.7 percent), manufacturing industry (16.5 percent), educational services industry (8.1 percent), and retail trade industry (7.2 percent).

**Table 5-12 Businesses in Orangetown by NAICS Code** 

Industry	Businesses		Emplo	oyees
Agriculture, Forestry, Fishing & Hunting	4	0.2%	16	0.1%
Mining	0	0.0%	0	0.0%
Utilities	2	0.1%	26	0.1%
Construction	157	6.7%	1,054	3.3%
Manufacturing	79	3.4%	5,245	16.5%
Wholesale Trade	68	2.9%	1,558	4.9%
Retail Trade	264	11.3%	2,291	7.2%
Transportation & Warehousing	44	1.9%	645	2.0%
Information	72	3.1%	1,409	4.4%
Finance and Insurance	105	4.5%	1,352	4.3%
Real Estate, Rental & Leasing	87	3.7%	605	1.9%
Professional, Scientific & Tech Services	238	10.2%	2,101	6.6%
Management of Companies & Enterprises	5	0.2%	30	0.1%
Administrative & Support & Waste Management & Remediation	84	3.6%	460	1.4%
Educational Services	59	2.5%	2,558	8.1%
Heath Care & Social Assistance	220	9.4%	5,634	17.7%
Arts, Entertainment & Recreation	77	3.3%	592	1.9%
Accommodation & Food Services	218	9.3%	1,914	6.0%
Other Services (Except Public Administration)	297	12.7%	2,623	8.3%
Public Administration	58	2.5%	1,555	4.9%
Unclassified Establishments	198	8.5%	87	0.3%
Total	2,336	100%	31,755	100.0%

Notes: The North American Industry Classification System (NAICS) is the standard used by Federal statistics agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy. https://www.census.gov/naics/

Source: ESRI Business Summary, November 19, 2021.



Downtown Pearl River © AKRF

# Existing Economic Development and Downtown Revitalization Strategies and Programs

#### **2018 Pearl River TOD Opportunities Analysis**

In 2018, the "Pearl River TOD Opportunities Analysis" (Pearl River Study) was submitted to the Town of Orangetown. The purpose of the Pearl River Study was to establish a downtown revitalization strategy for the hamlet of Pearl River. According to the Pearl River Study, key assets in Pearl River, which make it "uniquely positioned for physical and economic rejuvenation" include a relatively large downtown (for the area), a compact urban form comprised of a mix of uses, and rail connectivity to Secaucus Junction and New York City by way of the NJ Transit Pascack Valley line.

At the time of the Pearl River Study, it was observed that home sales and rental prices had been rising in the hamlet, especially for one-bedroom apartments. While restaurants and similar establishments continued to attract patrons to the downtown, "neighborhood-scale

#### 2018 Pearl River TOD Opportunities Analysis

RR

Pearl River © AKRF

retail offerings along Central Avenue had become smaller and less diverse" as they competed with nearby malls and societal shifts to e-commerce. In the decade preceding the Pearl River Study, "only minimal infrastructure improvements [were] implemented in the downtown core."

The Pearl River Study included quantitative analysis of Pearl River's demographics, economic and fiscal conditions, housing, and land use. It also, through a community workshop and other outreach efforts, explored desires of the local community, and community feedback was informative. Some strategies advanced by the community included:

- Encourage a greater diversity of entertainment, retail, and service establishments.
- Increase working opportunities downtown through office and co-working space which could assist in generating foot traffic.
- Attract more consumers to the hamlet by improving dated storefront facades, filling vacancies, beautifying lots and sidewalks, and adopting design standards.
- Support locating higher density housing closer to the train station, while maintaining zoning and building code enforcement to preserve community character.
- Improve train service in the hamlet, including more frequent express service to New York City.
- Enhance the pedestrian experience by repairing existing sidewalks, creating new sidewalks, and installing traffic calming measures to improvement pedestrian and motorist safety.
- Enhance streetscapes with trees, landscaping, planters and outdoor seating.

The Study concluded that Pearl River was "well positioned physically and economically for downtown infill development, especially in an around its train station." The Study's land use assessment found that the "existing urban form around the train station could accommodate a greater mix of uses, higher intensity of land use, and taller buildings."

#### **2018 Orangetown Bike Study**

The "Orangetown Bike Study: A Comprehensive Plan for a Safer and More Welcoming Cycling Environment on Orangetown's Roads and Trails" (Bike Study), was presented to the Town Board in June 2018. The primary goal of the Bike Study was to create a community vision for the local cycling network, with a focus on connecting residents with local business districts and community facilities including schools, libraries, and parks.

The Bike Study included some limited recommendations regarding economic development and downtown revitalization. It discussed the "Bike Friendly New York" program as a method of connecting the local business community to cyclists, and improving the experience for Orangetown residents and visitors who wish to dine, shop, travel, or make other trips by bike. Launched in 2017 by Parks & Trails New York, a statewide advocacy organization for parks and trails, the Bike Friendly New York program awards certification to businesses in New York State that fulfill certain eligibility requirements and offer specified bicycle-friendly amenities that demonstrate support for cyclists. As explained by Parks & Trails New York, "[t]he purpose of the Bike Friendly New York program is to recognize

<sup>11 &</sup>lt;a href="https://www.ptny.org/cycle-the-erie-canal/bikefriendly">https://www.ptny.org/cycle-the-erie-canal/bikefriendly</a>

#### 2018 Orangetown Bike Study

businesses that currently cater to cyclists by offering services and amenities that make two-wheeled exploration easier and more enjoyable and to encourage other businesses to do so."<sup>12</sup> The Bike Study suggested that designations of businesses as "Bike Friendly" could lead to increases in local retail sales when cycling increases.

As to downtown revitalization, the Bike Study suggested that since Pearl River has a walkable business district and convenient access to transit, improvements along Main Street and North Middletown Road, including adding shares lanes, bike lands, and improved shoulders, could lead to safer connections for bikers and pedestrians alike. The Town could consider this downtown revitalization strategy for Peal River and other hamlet downtowns.



Downtown Sparkill © AKRF

<sup>12</sup> Program Guide. https://www.ptny.org/application/files/8415/8093/3990/Bike\_Friendly\_NY\_Program\_Guide\_FINAL.pdf



Pearl River © AKRF

## Community Views on Economic Development and Downtown Revitalization

#### **Community Survey**

The Community Survey asked questions about existing and future conditions in the Town including what uses should be encouraged and discouraged, and whether and to what extent commercial development should be encouraged in the hamlets. The results of the Community Survey offer insight into how the Town might foster positive economic development and downtown revitalization while balancing resident interests and concerns.

Residents were in favor of encouraging a variety of land uses including Farmers markets (84 percent encouraged), theatre and performing arts (73 percent encouraged), restaurant and food service (68 percent encouraged), entertainment (62 percent encouraged), and grocery and retail stores (59 percent encouraged). Residents were discouraging of various commercial uses, including outside storage facilities (68 percent discouraged), automobile dealerships (59 percent discouraged), light industrial and manufacturing facilities (40 percent discouraged), and gas station and convenience stores (36 percent discouraged) (see **Appendix A**). Residents offered the following suggestions, concerns, and observations:

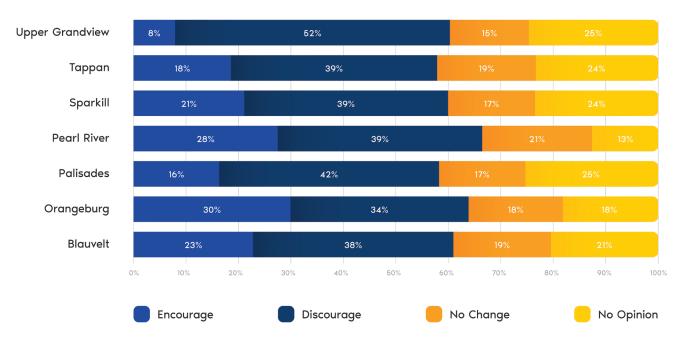
- Strip malls should be discouraged, while the Town should support small businesses, entrepreneurs, and the arts.
- Wherever possible, businesses should be encouraged to take over and rehabilitate older properties, and the Town should encourage this process.
- Encourage history-based tourism.
- Do not develop open space with commercial uses, but rather build-out existing industrial and office parks, and renovate existing vacant properties.

#### Community Survey

- Develop a Town department/office/committee that works to attract new creative businesses (such as startups, technology firms, and art and cultural centers).
- Limit the development of large commercial businesses, which often comes at the expense of smaller, locally-owned businesses.
- Develop a senior center or other community center.
- Host more outdoor events including concerts, fairs, and markets.
- Discourage expansion of chain restaurants, but encourage unique ones, and explore funding opportunities to encourage those businesses.

The Community Survey also asked residents their views on commercial development in the hamlets (see **Appendix A**). The overall sentiment was that commercial development should be discouraged in the hamlets, as seen in **Figure 5-7**, although some hamlets were less discouraging of such development than others.

Figure 5-7 **Public Feedback on Commercial Development in Hamlets** 



**Notess:** Percentages for each hamlet may not add to 100% due to rounding. **Sources:** Community Survey.

Based on these responses, it can be understood that certain hamlets may be more suited for economic investment in the form of commercial development than others. For example, while 33.8 percent discourage commercial development in Orangeburg, 30.0 percent encourage it, demonstrating a relative balance between supporters and opponents. Similarly, in Peal River, while 38.7 percent of respondents discourage commercial development there, 27.6 percent encourage it. In contrast, opinions diverge more significantly for the other hamlets. In Upper Grandview, just 8.0 percent encourage commercial development, while 52.3 percent discourage it. The Town should consider this public feedback in determining where downtown revitalization, in the form of commercial development, would be best received by nearby residents.



Downtown Pearl River © AKRF

## Vision, Goals, and Objectives

The goals and objectives included in the Comprehensive Plan seek to provide a healthy economic environment for community-based businesses that maintains the Town's tax base and provides jobs and services to the Town's residents.

#### **Proposed Implementation Strategies and Actions**

Based on the existing demographic and economic conditions, and public feedback during the public engagement process, implementation strategies were developed to address resident concerns and goals. This section identifies several strategies that could be undertaken to improve economic conditions in the Town, and to revitalize the hamlet downtowns.

 Explore grants and other funding opportunities for the Town and for small businesses, and educate business owners on how to apply for those opportunities.

One program the Town could further explore is the New York State Downtown Revitalization Initiative, a key component of the State's economic development program. The goal of the program is to "transform downtown neighborhoods into vibrant centers that offer a high quality of life and are magnets for redevelopment, business, job creation, and economic and housing diversity." The program seeks to encourage compact, walkable downtowns.

<sup>13</sup> https://www.ny.gov/programs/downtown-revitalization-initiative

20%
of Town business is retail
Accommodation and
Food Services sectors

Participant communities are nominated by the State's 10 Regional Economic Development Councils based on a downtown's potential for transformation, and communities can be awarded up to \$20 million to develop a strategic investment plan for the downtown and to implement projects that advance the community's vision for revitalization.

As noted in **Table 5-12**, over 20 percent of businesses in the Town are in the Retail Trade or Accommodation and Food Services sectors. The Town should consider collaborating with a group of businesses in these sectors when developing its downtown strategic investment plan and identifying key projects.

Another program the Town can explore, and promote among local businesses, is the Empire State Economic Development Fund Program. The stated goal of the program is to "offer financial assistance for projects that promote New York State's economic health by facilitating job creation and/or retention, or increased business activity in the state." Funds awarded through the program can be used for real estate and land acquisition, demolition, construction and renovations, site and infrastructure improvements, machinery and equipment, inventory, construction-related planning and design, training, and feasibility planning studies. Eligible organizations and projects include research and development, high technology, service and non-retail commercial enterprises, not-for-profits, local development corporations, and municipalities.

 Utilize placemaking strategies such as annual community events, pop-up holiday markets, farmers markets, public art, and live entertainment to draw residents and visitors to the community, patrons to local businesses, and to activate the public realm.

Community feedback during the public engagement process indicated significant support for encouraging land use for farmers markets, theatre and performing arts activities, dining and entertainment. The Town can consider facilitating more of these events throughout the year, particularly in the hamlet downtowns. Seasonal outdoor markets and festivals, which may include weekend street closures during warmer months, can encourage pedestrian circulation and engagement with local businesses.

Businesses from elsewhere in Town, outside the hamlet downtowns, could also be encouraged to set up stands during these events, allowing them to market their products and services to a broader community base, raising awareness. Where commercial properties in hamlet downtowns have been vacant for extended periods of time, the Town can create an inventory of these properties, and can facilitate discussions between commercial property owners and potential renters to set up pop-up and seasonal/temporary businesses.

<sup>14 &</sup>lt;a href="https://esd.ny.gov/empire-state-economic-development-fund-program">https://esd.ny.gov/empire-state-economic-development-fund-program</a>

 Encourage small businesses that add to the vitality of hamlet centers by providing cultural, recreational, and entertainment amenities desired by the community.

In order to attract businesses to Orangetown's hamlet centers, the Town could undertake a marketing campaign to showcase the Town as a unique place to live, work, visit, and explore. The marketing campaign would make a concerted effort to reinforce the benefits of relocating to Orangetown to potential businesses, and could include information about potential grants and other funding opportunities for those new businesses.

Direct marketing techniques could take many forms, including hosting seminars and events for prospective businesses, participating in industry trade shows, developing a website, and advertising in trade publications. The marketing campaign could present a regional vision for the Town, while promoting the local identify of the hamlets.



Sparkill © AKRF

- Establish a local development corporation.

A local development corporation (LDC) is a not-for-profit corporation with the mission of reducing unemployment, increasing job opportunities, and attracting and retaining industry for a community. LDCs have more capabilities than a local government to aid in local economic development. For example, an LDC can acquire property, fund construction, or issue bonds.

An LDC can be created by the Town of Orangetown (See New York Not-For-Profit Corporation Law - NPC § 1411. Local development corporations).

In lieu of incorporating an LDC, Orangetown could expand its existing engagement with the Rockland Economic Development Corporation (REDC)<sup>15</sup> and the Rockland County Industrial Development Agency (IDA)<sup>16</sup> to facilitate redevelopment projects.

<sup>15</sup> https://www.redc.org/

<sup>16</sup> https://rocklandida.com/

#### - Create an Orangetown Economic Development Plan.

Local economic development is a process through which the public and private sectors coordinate to facilitate better conditions for economic growth and employment generation in a locality. The goals of such local economic development are to create wealth, generate jobs, increase incomes, and improve the quality of life for residents. The Town can consider creating an economic development plan around three core components: supporting businesses, supporting workers, and supporting quality of life.<sup>17</sup> Associated goals for these components could include:

### SupportingBusinesses

- Retain existing businesses, which could include adding or improving local infrastructure, and interviewing local business owners to understand challenges and long-term goals.
- Attracting new businesses, by focusing efforts on industries best suited to the Town's assets and opportunities.
- Encourage business growth in infill locations around the Town, including within the hamlets.

## SupportingWorkers

- Improve access to local employment opportunities.
- Increase access to advanced education, workforce development, and job training opportunities.

## SupportingQuality of Life

- Promote a vibrant downtown commercial district, which if successful will allow downtown properties to better contribute to the Town's tax base (through increased retail sales).
- Attract stores and services that address daily needs of residents (rather than stores that sell nonessentials and luxury goods).<sup>18</sup>
- Attract new businesses of varying types and sizes to broaden business offerings and protect the Town's tax base.

<sup>18</sup> https://www.epa.gov/sites/default/files/2016-01/documents/small\_town\_econ\_dev\_tool\_010516.pdf



Pearl River © AKRF

<sup>17</sup> Additional guidance may be reviewed at: <a href="https://www.epa.gov/sites/default/files/2016-01/documents/small\_town\_econ\_dev\_tool\_010516.pdf">https://www.epa.gov/sites/default/files/2016-01/documents/small\_town\_econ\_dev\_tool\_010516.pdf</a>

 Attract new businesses of varying types and sizes to broaden business offerings and protect the Town's tax base.

The Town can create a more attractive environment for businesses in a variety of ways. Improvements to downtown connectivity, linking amenities, housing, retail options, and natural resources and open space would enhance the sense of place in the hamlet downtowns. Promotion of walking as an important mode of local circulation within the downtowns, and strengthening intermodal connections, would make it easier for pedestrians to travel within downtown areas, frequenting more businesses with ease, and between downtowns and other areas of the Town. Economic development initiatives to attract new businesses and broaden business offerings should be focused on placemaking strategies (discussed above) and improving quality of life for residents.

 Encourage infill development wherever possible, to maintain the 'feel' and 'character' of the hamlet downtowns.

To facilitate infill development, the Town can develop an inventory of existing vacant properties, organizing the properties by type (e.g., professional offices, commercial businesses, strip mall, factory/manufacturing, warehousing, dining). This inventory can also identify underutilized parcels. Using this information, the Town can develop specific strategic plans for hamlets that are more receptive to commercial development. Orangeburg and Pearl River were the hamlets more receptive to commercial development than others, based on Public Survey responses (see **Figure 5-7**). Infill residential development could also be considered as part of a downtown revitalization strategy, as the housing data presented regarding vacancy (see **Table 5-9**) indicates there is low residential vacancy in the Town. Increased housing in downtown areas could also grow those local populations, further benefitting downtown businesses.

As **Figure 5-2** indicates, Orangetown's older residents are aging in place. In response to that phenomenon, infill development could consider the development of facilities catering to the needs of that cohort of the population, which could include condominiums (for those individuals wishing to downsize), a senior center, a community center, and medical facilities.

 Activate the public realm in hamlet downtowns as a means to stimulate the local economies of the hamlets.

Encouraging and implementing Complete Street policies could increase foot traffic through expanded pedestrian infrastructure (see **Chapter 4, Transportation, Mobility and Parking**). Encouraging the development of a more inviting, mixed-use, pedestrian-oriented public realm could be considered in conjunction with transportation-related suggestions made by residents for additional bike lanes and sidewalks. The Town should also consider placemaking strategies, as discussed above, including improvements to public spaces, to further activate the public realm.

 The Town could consider undertaking an evaluation of shortand long-term economic impacts of the Covid-19 Pandemic on businesses in Orangetown, to better inform strategies that could respond to new trends such as work-from-home, and hybridwork schedules.

The Covid-19 Pandemic has had a unique impact on downtown economies. In the short-term, daytime and evening populations were diminished in downtown areas, reducing consumer activity. In the wake of that reduced economic activity, without certainty as to when and whether that consumer activity will return to pre-Pandemic levels, the Town should take steps to understand the existing business climate.









**Existing Conditions** 

Vision, Goals, and Objectives



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## Introduction

The Town of Orangetown is home to a rich variety of parks and open spaces. There are approximately 2,500 acres of public and private open space in Orangetown, constituting 22.7 percent of the land within its boundaries. Orangetown's natural landscape is defined by both land and water features including Clausland Mountain, which forms a 'green' north-south open space corridor to the east, and a chain of lakes and several creeks, which form a 'blue' north-south corridor further inland. Along with three state highways, NY State Route 303, NY State Route 304, and the Palisades Interstate Parkway (PIP), these two natural corridors frame Orangetown's predominantly residential fabric, with the densest concentration between NY State Routes 303 and 304. The steep terrain of Clausland Mountain to the east limits development on steep slopes, while the low-lying lakes further inland, and wetlands adjacent to the Hackensack River in the north-central portion of the Town and along the PIP, limit development on environmentally sensitive areas.



Henry Kaufmann Campgrounds © AKRF

The larger State, County, and Town parks are situated on Clausland Mountain, which is just west of the Hudson River shoreline, while the smaller Town and local parks are more evenly distributed within the Town's suburban fabric. The large parks located in the steep slopes of the north-south green corridor are part of a greater regional park system which connects to the Hudson Valley region and beyond. While State and County parks are the most prominent open spaces in Orangetown, smaller local parks are far more ubiquitous, embedded within State and County parks and the residential fabric of villages and hamlets. The Town also has a number of private open spaces, the most prominent being Manhattan Woods Golf Club and Kaufmann Campgrounds located west of Lake Tappan.

Expansive State and County parks, such as Blauvelt State Park and Clausland Mountain Park, generally accommodate passive recreational uses including hiking, nature observation, and fishing. Because they are connected to a regional park system, Orangetown residents and visitors alike use these natural open spaces. On the other hand, a range of local open spaces, from Veterans Memorial Park to Kennedy-Reedy Fields, are home to active recreation with a variety of athletic courts and fields. These smaller parks are more easily accessible by local residents, as they are more embedded within the Town's suburban fabric.

There is also a network of hike and bike trails lining the eastern boundaries of the Town, traversing the north-south corridor and following the contours of the Palisades Ridge. The major trails include the Hudson River Greenway Trail and the Long Path, which runs for several hundred miles from New York City, through the Hudson Valley, and into upstate New York. In addition, NY State Bike Route 9 mostly runs parallel to NY State Route 9 for 345 miles. These trails and paths cut through the topographically dramatic mountain ranges and wetlands associated with the large parks and follow the Hudson River shoreline, offering sweeping views of the Hudson River and Valley. Along the Hudson River shoreline, a number of scenic waterfront areas including riparian parks, boat launches, and marshes are located in Nyack, South Nyack, Piermont, and Grandview-on-Hudson.

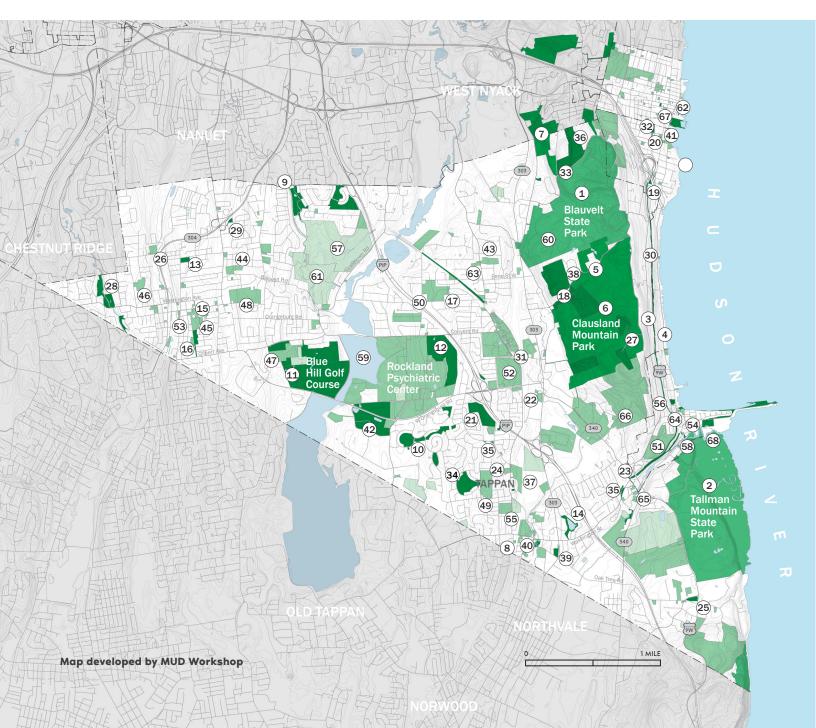
Although there is a continuity of parks and open spaces in the north-south direction and along the Town's 'green' and 'blue' corridors, access to and connectivity in the east-west orientation between these corridors, the waterfront, and most residential areas are limited. These open space corridors, rich with amenities, not only serve the local residents, but are also a regional civic amenity.

Strengthening existing connections and introducing new connections from the residential areas that lie between these corridors will further improve access for local residents.

#### **Parks and Open Space Inventory**







## **Existing Conditions**

#### **Open Spaces Inventory**

The Open Space Inventory shown in **Figure 6-1** and **Table 6-1** provides an overview of Orangetown's network of open spaces and the amenities they offer. There are over 2,500 acres of parks and open spaces, of which 59 percent are publicly owned, 27 percent are privately owned, and 14 percent are institutional and/or quasi-public land.<sup>1</sup> Over 1,200 acres of open space in Orangetown are concentrated in the five major parks situated across the dramatic topography of the eastern section of the Town.<sup>2</sup>

Table 6-1

Town of Orangetown Open Spaces Inventory<sup>3 4</sup>

No.	NYS Parks & Open Spaces	Acres/Miles	Recreation Facilities	Ownership/ Jurisdiction	Use		
	New York State Facilities						
1	Blauvelt State Park	590 acres	Open space natural area for hiking, including a section of the Long Path. The park lacks facilities other than hiking trails and limited parking.	New York State	Nature Nature observation Lookout space Trail Hiking		

- "Land Use and Zoning," Town of Orangetown Comprehensive Plan. May 2003, pgs. I-3 !-9. <a href="https://www.orangetown.com/document/comprehensive-plan">https://www.orangetown.com/document/comprehensive-plan</a>.
- 2 "Open Space and Recreation," Town of Orangetown Comprehensive Plan. May 2003, pgs. I-22 I-6. https://www.orangetown.com/document/comprehensive-plan.
- 3 While the inventory presents detailed documentation of existing open spaces, this list is not exhaustive and there may be other smaller open spaces within hamlets or villages that are not directly managed by the Town of Orangetown. For example, parcel #59.76-1-1 located in the Village of Nyack, is found on the Rockland County GIS database, but is not managed by Orangetown Town as an open space.
- 4 Sources for Open Space Inventory:

Town of Orangetown Comprehensive Plan 2003

Town of Orangetown Parks and Recreation Office website (www.orangetown.com/parks-and-recreation-office/)

Village of Nyack website (<a href="https://nyack-ny.gov">https://nyack-ny.gov</a>)

Village of South Nyack website (<a href="http://southnyack.ny.gov/">http://southnyack.ny.gov/</a>)

Village of Piermont website (https://piermont-ny.gov)

Village of Grandview-on-Hudson website (https://gvoh-ny.gov/)

The Rockland County Department of Planning - GIS: Town of Orangetown - Hudson River Greenway Trail Map (<a href="https://rocklandgov.com/departments/planning/land-use/rockland-riverfront-communities-council/trail-maps">https://rocklandgov.com/departments/planning/land-use/rockland-riverfront-communities-council/trail-maps</a>)

The Rockland County Department of Planning - GIS: Town of Orangetown - County Regulated Streams Rockland County Base Map Application (<a href="http://rocklandgov.com/departments/planning/mapping-and-gis">http://rocklandgov.com/departments/planning/mapping-and-gis</a>)

No.	NYS Parks & Open Spaces	Acres/Miles	Recreation Facilities	Ownership/ Jurisdiction	Use		
	New York State Facilities						
2	Tallman Mountain State Park	687 acres	This site features ballfields, an outdoor swimming pool, hiking, and sweeping views of the Hudson River. The park also offers athletic fields, a running track, tennis courts, cross-country skiing, picnic areas, and a private pool.	New York State	Nature Nature Nature observation Lookout space Trail Hiking Picnic Tennis Track Baseball Swimming pool Winter recreation		
3	Hudson River Greenway / Tallman Mountain State Park Multi-Use Path	750 miles / 2.2 miles	The 2.2-mile multi-use path in Tallman Mountain State Park is part of the Hudson River Greenway Trail. It is a primarily off-road route with stone dust trails. The trail occasionally connects with low-stress state park roadways. The paved section of the trail extends from Oak Tree Road in Tappan to Western Highway in Blauvelt. The unpaved section is between Kip's Crossing in Sparkill and Piermont.	New York State	Nature Nature observation Trail Hiking Biking		
4	NY State Bike Route 9	345 miles	NY Bicycle Route 9 is an on-road bicycle route with that extends 345 miles from New York City to Rouses Point, NY on the US-Canada border.	New York State	Trail Biking		
5	Collins Property	42 acres	Previous John J. Collins Estate used for permanent open space maintained by New York State Office of Parks, Recreation, and Historic Preservation.	New York State, Rockland County, Orangetown	Nature Park		

#### **Rockland County Facilities** Nature Nature Clausland Heavily wooded hiking and open space area. observation 6 500 acres **Rockland County** Mountain Park Contains a section of the Long Path. Lookout space Trail Hiking Nature Nature Open space natural area with deep gorges, observation 7 **Buttermilk Falls** 72 acres ravines, and scenic overlooks for hiking and **Rockland County** Lookout space passive recreation. Trail Hiking 8 Andre Monument <1 acres A small traffic island with a historic monument. **Rockland County** Historic

No.	NYS Parks & Ope n Spaces	Acres/Miles	Recreation Facilities	Ownership/ Jurisdiction	Use		
	Orangetown Town Facilities						
9	Azalea Court	17.7 acres	Undeveloped parkland along Nauraushaun Brook at the northern border of the Town.	Orangetown	Nature Trail		
10	Betsey Ross Park	23.4 acres	Passive undeveloped natural space. Located in Tappan, east of Veterans Memorial Park.	Orangetown	Park Nature		
11	Blue Hill Golf Course	171.25 acres	Public 27-hole golf course on the southwestern shore of Lake Tappan.	Orangetown	Golf		
12	Broadacres Golf Course	65 acres	9-hole golf course located on the former Rockland Psychiatric Center (RPC) Property.	Orangetown	Golf		
13	Borst Gardens	3 acres	Arboretum featuring an apple orchard and the Borst residence.	Orangetown	Gardens Picnicking		
14	Campbell Avenue Park	10.6 acres	Located in Tappan.	Orangetown	Park Nature		
15	Central Avenue Field		A field owned by Pearl River School District featuring a ballfield, playground, and gazebo.	Orangetown, leased from Pearl River School District	Baseball Playground		
16	Cherry Brook Park	5.3 acres	This park site accommodates active and passive recreation, featuring handball and tennis courts, children's play space, and walking pathways.	Orangetown	Park Tennis Basketball Playground		
17	DeMeola Fields	9 acres	Baseball and soccer fields situated on land leased from the South Orangetown School District.	Orangetown, leased from South Orangetown School District	Baseball Soccer		
18	Elliot Park	24.6 acres	Undeveloped passive parkland located between north and south portions of Tackamack Park.	Orangetown	Park		
19	Elizabeth Place Park	0.81 acres	Children's playground and dog park located on the west side of I-87.	Orangetown	Park Playground Dog park		
20	Franklin Street Park	1.32 acres	Children's playground, tennis court, basketball court, gazebo, park benches, and picnic tables.	Orangetown	Park Tennis Playground Picnic		
21	Greenbush Center	3.2 acres	Athletic field located at the former Greenbush school site.	Orangetown	Baseball		
22	Independence Park	18 acres	Active parkland with tennis and basketball courts, handball court, and walking paths.	Orangetown	Park Tennis Basketball Soccer		
23	Joseph B. Clarke Rail Trail	3.8 miles	A paved 3.8 mile north-south walking trail tracing an abandoned rail line. Composed of three trails that follow the corridors of the old New York & Erie Railroad and its affiliate, the Northern Railroad of New Jersey.	Orangetown	Nature Nature observation Trail Hiking Biking		

No.	NYS Parks & Open Spaces	Acres/Miles	Recreation Facilities	Ownership/ Jurisdiction	Use		
	Orangetown Town Facilities						
24	Kennedy- Reedy Fields	10 acres	Two baseball fields and a soccer field on land leased from school district. Named after two Town Police officers who passed away in the line of duty.	Orangetown, leased from South Orangetown School District	Baseball		
25	Liberty Pole Square		Located in Tappan, south of Tallman Mountain Park.	Orangetown	Park Historic		
26	Muddy Creek Park	3.4 acres	Natural area and open space along Muddy Creek, adjacent to Route 304.	Orangetown	Nature Park		
27	Nike North and South Park	29.85 acres	The park accommodates passive recreation including hiking, open space, and scenic views. The site was formerly a Nike Hercules radar tracking station for the U.S. government. Acquired 50 additional acres owned by Rockland County and Scenic Hudson.	Orangetown	Nature Nature observation Lookout space Historic		
28	Pascack North and South Park	18.5 acres	Undeveloped passive parkland with walking paths along the Pascack Brook. Preserved for fishing, walking, and passive recreation.	Orangetown	Nature Park Nature observation Fishing		
29	Pilgrim Park	1.1 acres	This neighborhood park features a children's playground and grass-covered play space.	Orangetown	Park Playground		
30	Raymond G. Esposito Trail/ Old Erie Path	1.1 miles	A 1.1 mile north-south rail trail located in the former Village of South Nyack.	Orangetown	Nature Nature observation Trail Hiking Biking		
31	Return Home Park	0.3 acres	Located at the intersection of Bataan Road and Western Highway, this park features a monument and landscaping dedicated to those who passed through Camp Shanks.	Orangetown	Park Historic		
32	Schaefer Property	21.9 acres	An undeveloped 25-acre parcel of land with a nature trail and vegetation, providing open space in a dense single-family residential area.	Orangetown	Nature Park Trail		
33	Schuyler Park	21.8 acres	Natural area directly north of Blauvelt State Park.	Orangetown	Nature Park		
34	Shanks Memorial	0.24 acres	A memorial park with several monuments and seating areas commemorating Camp Shanks, also known as the Walkway of Heroes.	Orangetown	Park Historic		
35	Sparkill Memorial Park	1.5 acres	Abutting the Joseph B. Clarke Rail Trail, this site features a veterans' monument and the DiFrancesca Playground. Offers parking for Joseph B. Clarke Trail.	Orangetown	Park Historic		
36	Stephen Rowe Bradley Park	26 acres	Undeveloped passive parkland adjacent to Schuyler Park on the Palisades ridgeline.	Orangetown	Nature Park		
37	Stoughton Park	0.34 acres	Small playground located within the Tappan Military Housing restoration project.	Orangetown	Park Playground		

No.	NYS Parks & Open Spaces	Acres/Miles	Recreation Facilities	Ownership/ Jurisdiction	Use			
	Orangetown Town Facilities							
38	Tackamack North and South Park	105 acres	Open space natural area that adjoins county and state parklands. Includes a section of the Long Path and picnic benches.	Orangetown	Nature Nature observation Lookout space Trail Hiking Picnicking			
39	Tappan / 303 Park	5 acres	A ballfield, basketball court, playground area on land leased from the South Orangetown School District.	Orangetown, leased from South Orangetown School District	Baseball Playground Basketball			
40	Tappan Memorial	1.9 acres	Park with walking paths and benches, bisected by Sparkill Creek. In the center of Tappan Free Library.	Orangetown	Park			
41	Towt Park		Riparian site with former pumping station that requires upgrades. Has future potential to provide waterfront access to Hudson River.	Orangetown	Kayak launch			
42	Veterans Memorial	45.7 acres	The Town's most active park site with athletic fields and tennis courts, playgrounds, basketball court, and jogging paths, dog park, and two ponds.	Orangetown	Baseball Basketball Tennis Nature Park Dog park			

	School-Owned Facilities						
43	Cottage Lane Elementary School	Children's playground, Little League ballfield, and basketball court.	South Orangetown Central School District (SOCSD)	Playground Baseball Basketball			
44	Evans Park Elementary School	Playground and small baseball field.	Pearl River School District (PRSD)	Playground Baseball			
45	Franklin Avenue Elementary School	Children's playground and a softball field.	PRSD	Playground Baseball			
46	Lincoln Avenue Elementary School	Children's playground and small ballfield.	PRSD	Playground Baseball			
47	Pearl River Middle School	Baseball and softball fields and a soccer field.	PRSD	Playground Soccer			
48	Pearl River High School	Six tennis courts, four handball courts, football, soccer, and baseball and softball fields.	PRSD	Baseball Soccer Football Tennis			
49	Schaefer Elementary School	Two ballfields and children's playgrounds.	PRSD	Playground Baseball			

No.	NYS Parks & Open Spaces	Acres/Miles	Recreation Facilities	Ownership/ Jurisdiction	Use		
	School-Owned Facilities						
50	South Orangetown Middle School		Two gymnasiums, two soccer fields, baseball and softball fields, and the only indoor public swimming pool in the Town.	SOCSD	Gymnasium Soccer Baseball Pool		
51	Tappan Zee Elementary School		Children's playground and ballfield.	SOCSD	Playground Baseball		
52	Tappan Zee High School		An all-weather track, football field, utility field, baseball field, softball field, and four tennis courts.	SOCSD	Track Football field Baseball Tennis		

#### **Other Facilities** Located at the corner of Central Avenue and Main Street in Pearl River, this is police department Orangetown Park **Braunsdorf Park** 53 1 acre property that functions as a memorial park with Police Department Historic monuments, seating, and grounds for walking. Riparian park with gazebo, paved walkways, and Park Village 54 Flywheel Park historic flywheel. of Piermont Historic Private, owned German 55 Park available for rental and hosting events. Park by fraternal Masonic Park organization Stepped walkway that leads to the Community Village Park 56 Half Moon Park Center Park. There are picnic tables, park of Piermont Picnicking benches, and a sculpture garden is planned. Camping Nature Nature Includes Leeds Amphitheatre, petting zoo, ten observation athletic fields, and four pools. Other recre-Henry Kaufmann Hiking 95 acres ational activities include boating, canoeing, Private Campgrounds Swimming hiking, climbing, and sand volleyball. Located in **Boating** Pearl River. Baseball Soccer Pool Kane Park and Small playground by the Hudson River with Village Park 58 Playground gazebo and a pathway near the water. of Piermont Playground A chain of lakes that runs north-south through Nature Orangetown. Veolia operates a watershed Nature Recreation Program, where the lake and 59 Lake Tappan ~350 acres Veolia observation surrounding land are available for fishing, hiking, Fishing and other forms of passive recreation on a Hiking

permit basis.

No.	NYS Parks & Open Spaces	Acres/Miles	Recreation Facilities	Ownership/ Jurisdiction	Use		
	Other Facilities						
60	Long Path	358 miles	Spanning from New Jersey to Greene County, the Long Path is a multi-use trail that weaves through several other sites documented in this list, including Town-owned Tackamack Park.	New York – New Jersey Trail Conference (NYNJTC))	Nature Nature observation Trail Hiking Biking		
61	Manhattan Woods Golf Club		Private 18-holes golf course with golf academy. Located in Pearl River.	Private	Golf		
62	Nyack Skatepark		5,000 square foot skatepark located inside Village of Nyack Memorial Park.	Village of Nyack	Skatepark		
63	Palisades High School ballfield		Ballfield used by Palisades Sparkill Little League.	American Legion	Baseball		
64	Parelli Park		Site of the former Mill beach, facing the Hudson River. It has small boardwalk with benches and hosts a weekly farmer's market.	Village of Piermont	Park Lookout space		
65	Rockland Cemetery		Heavily wooded cemetery located along the Long Path with walking paths and attractive vegetation. Located in Sparkill.	Private	Nature		
66	Sparkill Skating Pond / Eleanor Stroud Park	1 acre	Operated by Sparkill Fire Department and used for winter recreation as an ice-skating area.	Sparkill Fire Department	Park Winter recreation		
67	Village of Nyack Memorial Park	11 acres	Located on the Hudson River and features a baseball field, basketball courts, a children's playground, a skatepark, and a splash pad.	Village of Nyack	Park Baseball Basketball Skatepark Playground Historic		
68	Wendy Kendrick Park		Small dog park.	Village of Piermont	Dog park		

#### **Public State Parks**

Owned by New York State, these include the following major parks:

Tallman Mountain State Park Located at the southernmost edge of the PIP within NYS, Tallman Mountain State Park is a 687-acre nature park that traverses along the Hudson River from the Village of Piermont to the hamlet of Palisades. Tallman Mountain is shaded by dense woodlands on its steep eastern aspect, offering expansive views of the Hudson River and Piermont Marsh. This day-use only park has five miles of hiking trails and includes a section of the Long Path as well as NY State Bike Route 9. It also offers athletic fields, a running track, tennis courts, cross-country skiing, picnic areas, and a private pool accessible for a fee. Like all parks located on the Palisades Ridge in Orangetown, Tallman Mountain State Park's easterly slopes are extremely steep. The northwestern aspect abuts Sparkill Creek.

Blauvelt State Park

Located south of the Village of Nyack near the Hudson River Palisades, Blauvelt State Park is a 590-acre wooded natural area with the Long Path as its main walking artery. The park occupies the site of the former Camp Bluefields, a World War I era training rifle range. Key recreational features of this park include hiking trails with dedicated parking areas at trailheads, superior views of the Hudson Valley and the Governor Mario M. Cuomo Bridge (formerly and colloquially the Tappan Zee Bridge), and the opportunity to observe and be surrounded by nature. Blauvelt State Park connects with several other Town and County parks, including Buttermilk Falls County Park, Clausland Mountain County Park, and Tackamack Park, forming a nearly seamless nature park corridor on the Hudson Palisades.

#### **Public County Parks**

County parks are owned by Rockland County, and include two major parks:

Clausland Mountain County Park As a part of the Palisades Ridge, Clausland Mountain Park is a 500-acre densely wooded nature park. It stretches in the north-south direction from Tackamack Town Park to the former Nike missile site off Highland Avenue. The entire park is an undeveloped natural area, punctuated by several scenic outlooks. The Long Path is the primary hiking trail in Clausland Mountain Park, which connects to a network of trails within the park. There are several other Town parks embedded within this County park's boundaries, including the Nike North and South Parks. While there are no permanent waterbodies on the mountain, many streams cascade down the slopes during periods of heavy rain. The woodlands are characterized by stands of hemlock and dense patches of mountain laurel.

Buttermilk Falls County Park At 72 acres, Buttermilk Falls County Park primarily comprises steep woodland, with Buttermilk Falls tumbling down the shale and sandstone mountainside. There are several scenic outlook areas overlooking the Ramapo Mountains and parts of New Jersey. At the base of the park is a versatile recreational area that lends itself to nature observation, picnicking, and geological exploration. There are two main trails respectively connecting the parking area to Buttermilk Falls Park and Schuyler Road. The park's woodlands are defined by deciduous trees such as red oak, white oak, chestnut oak, and maple, and evergreen trees such as hemlock, as well as flowering plants including dogwood, wild rose, and sumac.

#### **Public Town Parks and Open Spaces**

Owned by the Town of Orangetown, this array of open spaces ranges from trails and natural areas to sports fields and playgrounds. Chief among these parks is Tackamack Town Park, a 100-acre natural area that overlaps with the northern portion of the County-owned Clausland Mountain Park and Veterans Memorial Park, the largest active recreation open space facility in Orangetown. Smaller open spaces are generally embedded within the residential fabric and offer green space to the surrounding neighborhoods. Open spaces under the Town's jurisdiction also include athletic fields and facilities leased from school districts, including DeMeola Fields and Kennedy-Reedy Fields.

Tackamack Town Park Tackamack Town Park is a 100-acre open space straddling County and State parklands. Featuring a section of the Long Path and picnic benches, this park is a popular location for birding, hiking, and mountain biking. Birds such as yellow-bellied sapsuckers and redbreasted nuthatches can be found in the pine groves. The park consists of two portions, Tackamack Town Park North and Tackamack Town Park South, which are bisected by Clausland Mountain Road.

#### **Public Village Parks and Open Spaces**

There are a number of parks and open spaces in the Villages of Piermont and Nyack and the hamlet of South Nyack (formerly the Village of South Nyack). Many of these parks are waterfront open spaces located along the Hudson River shoreline, including skate parks, dog parks, boat launches, and village squares.

#### **Privately-Owned Open Spaces**

Major privately-owned open spaces include Kaufmann Campgrounds, Manhattan Woods Golf Course, German Masonic Park, and facilities within the Rockland Psychiatric Center (RPC) site, such as the Gael Athletic Association. Many of these private open spaces provide specific recreational uses, such as golfing, for its members and are often accessible to the public by request and/or for a fee.





#### **Institutional and Quasi-Public Spaces**

Institutional and quasi-public spaces are generally those that are owned by a civic or nonprofit organization. These include school playgrounds, ballfields, and athletic facilities that are open for public use. Local examples include the numerous athletic fields and public swimming pool at South Orangetown Middle School and the children's playground and small ballfield at Lincoln Avenue Elementary School.

#### **Trails**

As described earlier in this section, several hike and bike paths extend in the north-south direction and run parallel to the Hudson River. Many of these paths are part of regional trail systems that connect Orangetown to the greater Hudson Valley region and beyond. One such example is the Hudson River Greenway Trail, which spans 750 miles from New York City to Canada. The Hudson River Greenway Trail incorporates local trails, such as the Joseph B. Clarke Rail Trail and the Raymond G. Esposito Memorial Trail, and bike paths such as NY State Bike Route 9, into its broader system. Another major trail is the Long Path, a 357-mile hike and bike trail that cuts through most of Orangetown's large parks along the Palisades Ridge.

#### Laws and Regulations on Parks, Open Spaces, and Vegetation

The Town of Orangetown Ordinance includes robust sections on tree planting, preservation, and regulation in relation to development. Town Code §21-25 on Trees, most recently amended in 1999, specifies the required treatment of trees by developers and provides a list of permissible trees identified by the Town's Architecture and Community Appearance Board of Review (ACABOR) for different ground conditions. Town Code Chapter 35 on the Town's trees and shrubbery ordinance establishes a Shade Tree Commission (STC) and delineates tree planting and removal requirements along public highways, parks, parkways, and public spaces, but does not regulate the work done by the Town's Sewer Department, Highway Department, or on private property. Tree preservation, maintenance, and removal and vegetated buffer regulations are found in the Town Code §43-14 Route 303 Overlay Zoning District, §21-7 Land Clearing Operations, and Chapter 24C Property Maintenance. Building on the extensive Town Code sections on trees and vegetation, institutions and organizations currently responsible for managing trees and vegetation can collaborate to form a holistic management system, while exempting invasive species from removal protections. This unified tree management system would serve to enhance the environmental benefits and ecological performance of Orangetown's urban forest.



Fountain at Dominican University © MUD Workshop

Town Code §21-20, which applies to the Town's recreation sites, describes minimum acreage of recreation areas in relation to number of households. This section also states that the minimum size of park and playground reservations should be at least four acres. Chapter 43 Article XIII, Route 303 Overlay Zoning District, includes several effective regulations that can be applied more broadly to landscape management and other open spaces and natural areas in the Town. Additional legislation may be necessary to help manage the Town's array of parks and open spaces.

#### **Green Space Beyond Open Space**

Beyond Town, County, and State parks, there are many green spaces in Orangetown including a ubiquitous network of small green spaces, such as backyards, front yards, and gardens, that are associated with single-family housing. Therefore, it is important to manage open spaces beyond parks, as parks are only a part of the bigger picture of climate and open space management.

#### **Acquisition of Rockland County Psychiatric Center Park Space**

In 2002, the Town of Orangetown entered into a contract with the State of New York to purchase 348 acres of the Rockland Psychiatric Center (RPC) property for \$6.95 million with a special open space bond. According to the contract, at least 216 acres of land within the RPC Campus must be retained for recreational and municipal purposes for 25 years (until 2027).5 The Town has made parts of these 216 acres available to private developers for open space projects.



Rockland Psychiatric Center Gate © AKRF

<sup>5 &</sup>quot;Chapter 3G: Recreation and Senior Services," Town of Orangetown. https://www.orangetown.com/ wp-content/uploads/Chapter\_3G\_Recreation\_and\_Senior\_Services.pdf.

Green Space Beyond Open Space Since the acquisition, the Town has added the public Broadacres Golf Course, public base-ball fields and soccer fields, and landscape enhancements including walking paths.<sup>6</sup> NYC Football Club has built a training facility on a 17-acre site. A proposed private, indoor commercial recreation facility in the southwest area of the RPC Campus is currently being reviewed. Other past initiatives include a Request for Proposals (RFP) for a 30-acre water-front park adjacent to Lake Tappan, as well as a municipal pool, both of which have been tabled.



Monument at Sparkill Memorial Park © MUD Workshop

## Vision, Goals, and Objectives

Orangetown's well-maintained parks and open spaces not only have great scenic and recreational value, but they also serve as important ecological systems that can mitigate flooding hazards, protect watersheds, preserve wildlife habitat and biodiversity, and sequester carbon. The following strategies and actions provide a roadmap for the Town of Orangetown to further enhance the quality of natural environments, protect and preserve

<sup>6</sup> Ibid.

open spaces, increase access to parks across the Town, and support the ecological function of open spaces in flood mitigation, carbon sequestration, and in providing wildlife habitat and biodiversity.

#### Goal: Preserve the Town's Natural Resources, Increase Access to Parks and Open Space, and Enhance their Ecological Role.

#### **Proposed Implementation Strategies and Actions**

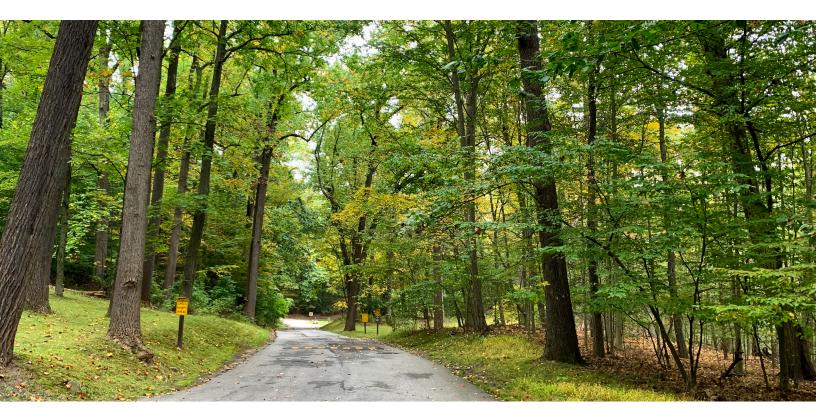
Use cluster development and conservation easements to preserve large contiguous areas of open space and protect environmentally sensitive areas.

> NYS Town Law Section 278 authorizes municipalities to approve cluster development. Cluster development is a type of subdivision in which typical zoning requirements are modified to allow an alternative "layout, configuration and design of lots, buildings and structures, roads, utility lines and other infrastructure, parks, and landscaping."7 Development is clustered so that natural, scenic, or historic resources and environmentally sensitive sites are preserved. In exchange, developers are permitted to subdivide property in ways that deviate from the bulk and area requirements that would otherwise apply under the Zoning Code. Cluster development should be considered for development and redevelopment on large parcels to preserve and protect contiguous open space and safeguard environmentally sensitive areas.

> §21-7.1, Conservation Easements (created in 1999, amended in 2007), of the Town Code authorizes the Planning Board to require conservation easements on real property that is situated within environmentally sensitive and flood-prone areas. To enhance the maintenance and enforcement of conservation easements, the Town could consider establishing a Conservation Easement Program that annually monitors compliance, provides funding for private property owners who require financial assistance in maintaining the easements, and creates a program for active maintenance and stewardship of Town-held conservation easements.8 In terms of ecological management, the Conservation Easement Program can guide the management of invasive species, native species, and pests within conservation easements. For instance, rather than following a tree preservation ordinance based on solely tree trunk diameter, guidelines can be introduced to promote preservation of native plant and tree species while allowing for the removal of harmful, invasive species. Through attentive monitoring and maintenance, conservation easements can be impactful in ameliorating environmental effects of climate change.

<sup>7</sup> Raines, P., Cluster Development and Policy (2017)

Town of Gardiner (Ulster County, NY), "Town of Gardiner Open Space Commission: 2019 Annual Report"

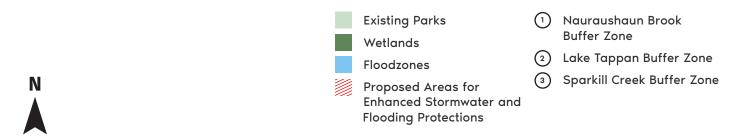


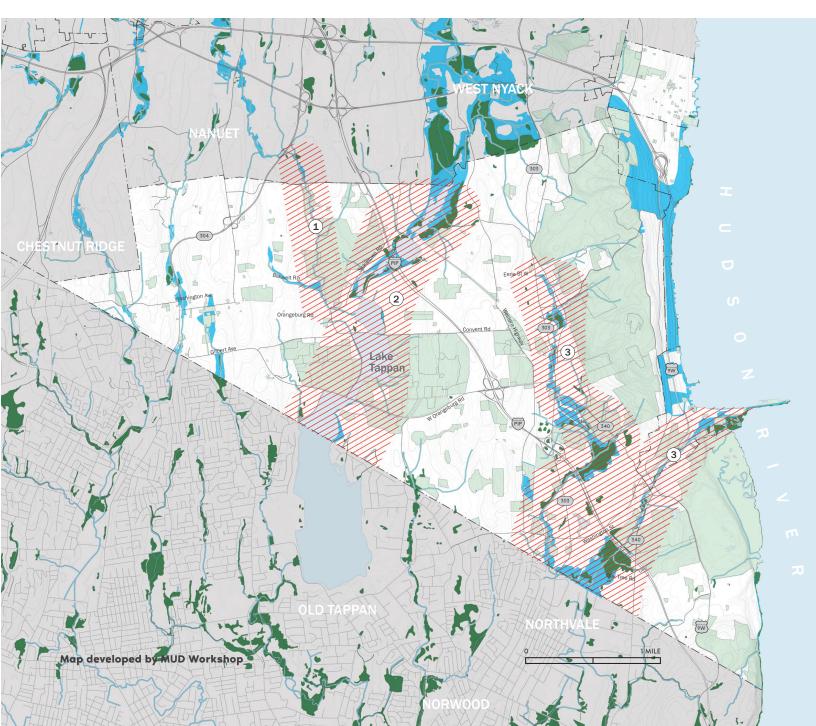
Shaded roadway in Tallman Mountain State Park © MUD Workshop

Large contiguous areas that are not environmentally sensitive areas, such as parks, sports fields, golf courses, agricultural areas, and cemeteries also require protection for their scenic, natural, environmental, and recreational value. Further, these developed open spaces provide environmental benefits that would be enhanced by conforming to stormwater drainage requirements, heeding light pollution regulations, supporting trees and vegetation to a greater extent, and further protecting natural systems and biodiversity.

Because most developable land area in Orangetown has already been developed, open areas previously deemed less accessible or environmentally sensitive may now become targets for development. Rather than disrupting these few remaining open areas, future development should be oriented to infill already developed areas. Cluster development would be conducive to kinder urban conditions, in which hamlets and villages are surrounded by open space rather than encroaching upon each other due to suburban sprawl.

Figure 6-2
Recommended Areas for Enhanced Regulations to Protect
Open Space and Environmentally Sensitive Areas





#### - Develop a viewshed protection ordinance.

Viewshed protection is a significant aspect of ridgeline and open space management. A viewshed ordinance for Orangetown would protect sight line corridors to shorelines and ridgelines, as well as restrict ridgeline development to ensure natural views from lower reaches. With the dissolution of the Village of South Nyack in 2022, over one mile of Hudson River riparian private and public property has come under the purview of the Town of Orangetown. The Town can protect shorelines and ridgelines by reviewing the former Village's zoning code to ensure that sight line corridors to the river through private property are maintained. Ridgeline development can be restricted to guarantee more natural views from lower elevation areas. This could be achieved by creating a viewshed overlay district, floating zones, and ridgeline protection laws. There is an existing viewshed overlay zoning in Nyack that is inconsistently enforced and requires stronger implementation. Building on these existing regulations, the Town could examine the following strategies to enhance viewshed overlay protection in other areas adjacent to the Hudson River:

- Employing Floor Area Ratio (FAR) strategies to regulate building bulk for bolstering viewshed protection and related protection of property values. Currently, South Nyack's FAR zoning requirements are different from those in the Orangetown Code. Targeted efforts could be made to incorporate effective FAR zoning stipulations during the period required to harmonize zoning law.
- Introducing zoning laws that limit building heights based on proximity to viewsheds to maintain sight line corridors.
- Establishing overlay zoning, which places additional restrictions on existing zoned areas to control ridgeline development, density, grading, and vegetation.
- Designating view corridors, which are planned openings in the built environment that accommodate viewsheds.
- Requiring viewshed analysis for ridgeline development and acquiring ridgeline lands for preservation.

View of the Governor Mario M. Cuomo Bridge (Tappan Zee Bridge) from a private property © MUD Workshop



#### Recycle underutilized areas and obsolete infrastructure for recreational use.

Infrastructure becomes obsolete when it is no longer adequate in providing the services that users require and/or in meeting the requirements of updated code. For example, policies that address climate change may require infrastructure, such as utilities, transportation, and power grids, to adapt to new standards and regulations. In cases where demolition may be too costly, adaptive reuse would be an effective option to transform interesting and serviceable aspects of infrastructure into recreational resources. Adaptive reuse also can transform infrastructure with historic and/or cultural value into attractions that celebrate the site's history. For Orangetown, the following strategies can be engaged to repurpose defunct infrastructure:

- Encouraging conversion of inactive rail lines into rail trail facilities that create a continuous network of trails with adjacent municipalities.
- Implementing the plans for a waterfront park on Lake Tappan within the 216-acres of Town-owned land at the Rockland Psychiatric Center, including walking paths, wheelchair accessible trails, and access to water for passive recreation activities.
- Using recycled building and other construction materials for any new park structures.

#### Expand community programming and the ecological role of parks in habitat restoration.

In addition to the robust seasonal programming of its parks and open spaces, the Town of Orangetown Office of Parks and Recreation should consider establishing ecological and conservation-oriented community programs. Orangetown residents can become stewards in elevating parks to play a greater role in creating habitats and improving their hydrological performance as planted meadows, natural vegetated buffers, and green fields.

Potential programs and organizations that can be established include an Adopt a Park/ Greenway program for local trails such as the Raymond G. Esposito Trail, a tree trust in collaboration with the Shade Tree Commission (STC), and citizen science programs for ecological monitoring in collaboration with Hudson River Estuary. The Town could also support the creation of a local volunteer trail rangers program to support trail maintenance in undeveloped parks and open spaces. In response to the encroachment of invasive species, the Town can consider forming an invasive species management volunteering program in collaboration with Cornell Cooperative Extension and Keep Rockland Beautiful, which provides volunteer training and organizes maintenance events. The Office of Parks and Recreation can consider partnering with their County and State counterparts to create more connected community park programs.

Community programming such as community gardens and nature centers can be organized in partnership with schools and on their open space and recreational facilities. As a starting point, the Town could consider developing an inventory of locations that might lend themselves for such transformations.

## Educate young residents about the environmental importance of parks and promote park stewardship.

The Office of Parks and Recreation, in collaboration with the Orangetown Environmental Committee (OEC), should consider instituting a local park and environmental stewardship program for youths and students. This program can focus on environmental education, as well as promoting volunteering and service efforts to create impactful open space and natural resource improvement projects. Through the program, students can learn about environmental conservation by engaging in plant and wildlife management, cleaning up streams, and participating in conservation projects throughout Orangetown and the region. Students can also take part in volunteer service, such as hiking trail maintenance, mapping storm drains, and citizen science. Furthermore, the program can increase participation in different forms of recreation and catalyze enhancement projects for sports activities in parks, including baseball, golf, playgrounds, swimming, and hiking. The Town can consider forming partnerships with existing regional environmental stewardship programs for youths including New York State Friends of Recreation, Conservation and Environmental Stewardship (FORCES), Rockland County Service Corps, and Student Conservation Association (SCA) New York State Parks Corps.

## Develop sustainable best practices for park maintenance.

The Orangetown Department of Environmental Management and Engineering and the Office of Parks and Recreation could be in communication with the OEC, the STC, and the Stormwater Consortium of Rockland County to develop codified best practices for parks and open spaces.

Best maintenance practices anticipate changes that result from climate change. To identify these future changes, the Town should consider conducting a Town-wide climate impact survey for parks and open spaces. Potential strategies include mindful selection of construction materials, discerning use of synthetic turf, establishing a soil management program, improving water efficiency, and taking a climate-adaptive approach to planting.

Projects and capital repairs have the potential to lower greenhouse gas (GHG) emissions during construction processes, sourcing of materials, and long-term maintenance. As such, construction materials should be selected to minimize environmental impact, have a long service life, and be reused and repurposed when possible. Construction materials should also improve ground permeability and increase pavement surface albedo for reducing heat absorption. Currently, with the exception of golf courses and the Orangetown Soccer Complex, synthetic turf is not used in any of Orangetown's parks, while chemical treatments are used sparingly only as a final recourse. This conscientious management practice should be maintained in the future, and synthetic turf should be used judiciously, only when its benefits are maximized with consideration to flooding and stormwater management consequences. Additionally, water efficiency can be improved by utilizing low-impact irrigation systems and creating absorbent landscapes. Protecting and restoring natural hydrology as well as introducing green infrastructure (GI) as part of park infrastructure would also increase water efficiency. In terms of soil management, the Town should consider maximizing compost use (instead of chemical fertilizers), minimizing soil disturbance, and prioritizing rejuvenation of existing soils before importing new soils. Furthermore, planting and vegetation strategies can take on a climate-adaptive approach with diversified plant species. Finally, the Town can partner with the private sector and local communities to assist with park maintenance.

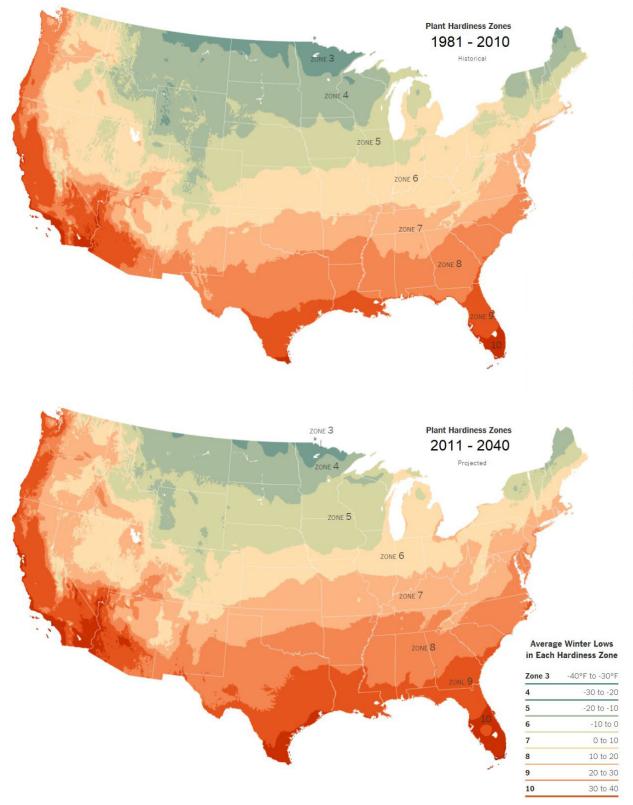


Natural groundcover in South Nyack park © MUD Workshop

Consider and adopt urban forestry and landscaping best practices.

Beyond parks and open spaces, Orangetown's street trees and suburban green landscapes form a ubiquitous network of ecological assets that can be powerful in responding to climate change as well as water quality concerns. Trees for streetscaping and open spaces, both public and private, can play an important role in responding to shifting climate zones. Plant hardiness zones are moving north at 13 miles per decade in the US and

Figure 6-3
USDA Planting Zones Migration from 1981 - 2040



Source: The New York Times "What's Going On in This Graph?  $\mid$  Growing Zones", Sep 1, 2021

indicate increasingly warm climate conditions.9 As a result, common trees in Orangetown today may not be able to survive climate conditions 30 to 50 years into the future. It is therefore advised to update the list of permissible trees in the Town Code to incorporate resilient vegetation as well as trees suitable for urban heat management. This update can also consider discouraging the felling of trees, requiring new plantings to be climateresilient species, and extending protection to younger trees.

Moreover, the Town should consider establishing landscaping practices and chemical application regulations for private property. Orangetown's predominant land use is single family residential with yards. Regulating landscaping practices in these yards could help improve the Town's chronic flooding challenges and groundwater quality concerns. These practices could include improving water efficiency of lawns, decreasing use of nitrogen fertilizers, and heavily limiting chemical pesticides and lawn care chemicals that harm human and ecological health.

Additional action items and recommended initiatives include:

- Setting targets to plant climate-resilient street trees for shade and aesthetics, applying for funding to make this possible, and aggregating the bulk purchase of saplings with other municipalities to lower costs.
- Minimizing tree clearing and discouraging greenfield development in general.
- Working together with the Planning Board, ACABOR, and the STC to set standards for the landscaping plans of new developments and re-developments.
- Planting trees in parts of Orangetown's vacant and/or underutilized lands, along wide roads, and large swaths of paved areas such as parking lots.
- Educating and providing resources to homeowners, landscapers, and developers regarding suitable tree species, invasive species, pest management, planting best practices, and landscaping regulations.
- Expanding the Street Shade Tree planting program for Town-owned property to include tree planting funding for private properties.
- Implementing a maintenance plan with planting sustainable species in Town-held conservation easements.
- Creating a list of invasive species along with specific management techniques, so that tree removal is not determined solely by trunk diameter.
- Land banking<sup>10</sup> of required parking, introducing permeable paving to required parking, and providing landscaping on a regular basis.
- Introducing ecological corridors, such as pollinator pathways, throughout the 10 Town to improve habitat conditions for endangered keystone species.

<sup>9</sup> Nicola Jones, "Redrawing the Map: How the World's Climate Zones are Shifting," Yale Environment

<sup>10</sup> Land banking is the practice of aggregating parcels of land by public or community-owned entities for development, management, or maintenance.

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# Recommended Connections between the Blue and Green Corridors



- 1 Erie Street W intersection with the Clarke Rail Trail
- 2 Orangeburg Road intersections with Veteran's Field, Independence Park, Greenbush Center, and Route 303 close to Clausland Mountain Park



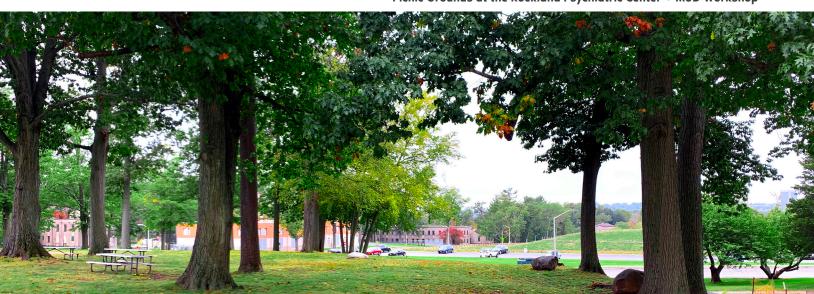
 Provide greater continuity between Orangetown's local parks and open spaces, the regional open space corridor, and waterfront areas.

Several large State and County parks by the Hudson River, such as Blauvelt State Park and Clausland Mountain Park, as well as a number of hiking and biking trails are connected to form a 'green' open space corridor in the eastern portion of Orangetown. To the west, Orangetown's major waterbodies, including Lake Tappan and the Hackensack River, form a 'blue' open space corridor. A range of Town open spaces, from Veterans Memorial Park to Betsey Ross Park, are more accessible as they are better integrated with the suburban fabric. There are also many scenic waterfront areas including riparian parks, boat launches, and marshes that are located along the Hudson River shoreline.

Although several parks and open spaces are connected in the north-south direction and along the Town's 'green' and 'blue' corridors, access to and connectivity in the east-west orientation between these corridors, waterfront amenities, and most residential areas are limited. As such, the Town should consider improving pedestrian and bike connectivity between the 'blue' and 'green' networks. These improvements could include signage and wayfinding features, bike paths along existing major east-west roadways, increasing public access points to water recreation amenities, as well as additional pedestrian paths that thread through residential neighborhoods and loop into larger parks and corridors. As a first step, the Town should consider identifying key recreational facilities and other highly frequented areas in the Town as key nodes, and map potential pedestrian and bike connections between these nodes. For example, Clausland Mountain State Park is a key node within the 'green' corridor, while Veterans Memorial Park is a key node in the 'blue' corridor. Pedestrian improvements can be made at the following intersections:

- W Erie Street intersection with the Joseph B. Clarke Rail Trail; and
- Orangeburg Road's intersections with Veterans Memorial Park, Independence Park, Greenbush Center, and Route 303 close to Clausland Mountain Park.

Picnic Grounds at the Rockland Psychiatric Center © MUD Workshop



## Develop an Open Space Plan to continue expanding the Town's area under Parks and Open Space use.

The Town can consider creating an Open Space Plan to protect existing open spaces and expand open space ownership when possible. The predecessor to this Comprehensive Plan, the 2003 Orangetown Comprehensive Plan, informed by the Ad Hoc Open Space Committee's proposals, recommended the acquisition of two open space areas:

- The Hackensack River 'blue' corridor, including open areas within the Rockland Psychiatric Center (RPC) site, and
- The Palisades Ridge 'green' corridor where it intersects with the Sparkill Creek watershed and open areas in the southeast portion of Town.

In addition to the potential open spaces for acquisition identified in the 2003 Comprehensive Plan, new sites could be added to the acquisitions list. For example, the Olson Center (located at 149 - 157 Piermont Avenue), with its 400 feet of river frontage, ecological significance, and historic preservation value, is already being considered by the Town for acquisition. The Town should also consider establishing guidelines for parkland acquisitions and protection that delineate parameters deemed valuable by the Town. This can include, for example, prioritizing lands that have unique natural features and properties contiguous with existing parkland for acquisition. Together with these potential open spaces for acquisition, mechanisms for protecting the Town's open space include strengthening the management of conservation easements, encouraging cluster development, and introducing a viewshed protection ordinance. The Open Space Plan could also serve to bolster access and connectivity between Town's 'green' and 'blue' corridors, which are key environmental and recreational assets, to create a more integrated network of parks and open spaces. Furthermore, the Open Space Plan can promote uses for parks that are accessible, relevant, and interesting for users, such as pet parks. town pool, and play areas with cooling features. Beyond conservation easements, cluster development, and viewshed protection ordinance discussed earlier in this chapter, the Town can consider working with State legislature, County representatives, and public-private partnerships to protect and enhance this valuable network of parks and open spaces.

View from Village of Nyack Memorial Park © MUD Workshop





#### **Sustainability and Climate Resiliency**

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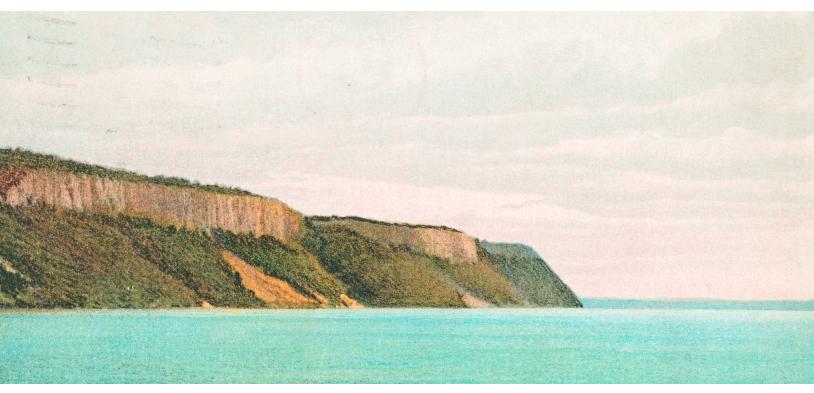
Topography

Hydrological Systems (Waterbodies + Wetlands)

Flooding

Carbon Emissions

Vision, Goals, and Objectives



Palisades of the Hudson River, New York; postcard, circa 1898. Source: The Miriam and Ira D. Wallach Division of Art, The New York Public Library

# Introduction

The Town of Orangetown has a wealth of natural features and systems of great scenic, ecological, and climate resilience value.

A topographically defined "green" open space corridor formed by the Palisades Ridge lies to the east, where there are densely wooded steep slopes and grand views of the Hudson River. The corridor has some steep slopes that are unfit for development (greater than 25 percent) located in the major State and County parks, as well as some residential areas. To the west, major waterbodies, including Lake Tappan and the Hackensack River, form a "blue" corridor. Orangetown's County-regulated streams, which include Sparkill Creek, Hackensack River, Nauraushaun Brook, Muddy Creek, and Pascack Brook, are lush with vegetation and accessible open spaces along their banks.

Orangetown also has a considerable number of wetlands, many of them recognized by the New York State Department of Environmental Conservation (NYSDEC) and the National Wetlands Inventory. These wetlands provide invaluable ecological services, including flood mitigation, absorption of excess nutrients, and critical habitats for animal and plant species. Piermont Marsh, the largest riparian marsh in Orangetown, supports significant biodiversity and is habitat for several State-listed endangered flora and fauna. It is also part of the Hudson River Estuary Program.

Orangetown falls within the northwestern forested mountain ecoregion, which is characterized by diverse and distinct vegetation associated with different elevations. The higher elevations of the Clausland Mountain woodlands are characterized by mixed and deciduous vegetation, while the low-lying area surrounding Lake Tappan and Sparkill Creek give rise to wetland conditions. In general, higher elevation woodlands are composed of hardwoods including maple, oak, beech, hemlock, white pine, dogwood, and mountain laurel, and low-lying lands have plants including willow oak, birches, sweet gum, and sour gum.<sup>3</sup>

One of the most significant environmental concerns in Orangetown is flooding. An estimated 26.1 percent of the Town's land area is under high flood and associated water quality risks.<sup>4</sup>

- 1 "7.0 Natural and Environmental Resources," Rockland Tomorrow: Rockland County Comprehensive Plan. 2011. http://rocklandgov.com/departments/planning/comprehensive-plan.
- 2 NYS Department of Environmental Conservation's (DEC) Hudson River Estuary Program promotes the protection and revitalization of the Hudson River estuary through grants, education, and training, community planning, and research and monitoring. Created in 1987 through the Hudson River Estuary Management Act, the program oversees the tidal Hudson, from the mouth of the Hudson in New York Harbor to the Federal Dam in Troy, and its adjacent watershed.
- 3 Town of Orangetown. <a href="https://www.orangetown.com">https://www.orangetown.com</a>.
- 4 "Section 5.4.5: Risk Assessment Landslide," Rockland County Hazard Mitigation Plan, 2018. <a href="https://www.rocklandhmp.com">https://www.rocklandhmp.com</a>.

Tappan Memorial Park © AKRF





Lake Tappan © AKRF

# Topography

#### **Town of Orangetown Topographic Context**

The Town has a gradient of steep slopes to the east that smooth out to more gentle plains and hills towards the west. The eastern portion has the most significant topographic relief and is located along the Palisades Ridge, which runs along the Hudson River linking Blauvelt and Tallman Mountain State Parks before continuing south into Palisades State Park in New Jersey. From a high point of 675 feet at Clausland Mountain, the Town's elevation drops to sea level along the Hudson River. Views from and of the towering Palisades cliffs are sublime and unique; in fact, there are only a handful of such protrusions in the world.<sup>5</sup> These grand natural features are also highly susceptible to erosion and mudslides.

West of the Clausland Mountain, the rest of the Town largely consists of plains and moderate hills, separated by Lake Tappan that runs northeast/southwest as an impoundment of the Hackensack River.

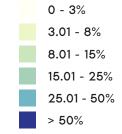
## Town of Orangetown Steep Slope Analysis

The steep slopes of the Clausland Mountain in the eastern portion of Town present development challenges and require erosion prevention measures. Much of these steep slopes are covered with picturesque woodlands suitable for preservation and biotechnical slope stabilization strategies. When disrupted, steep slopes are highly vulnerable to erosion, landslides, and subsidence, which can endanger communities, jeopardize water quality, and damage built structures.<sup>6</sup> It is therefore imperative to categorize and identify slopes

<sup>5 &</sup>quot;7.0 Natural and Environmental Resources," Rockland Tomorrow: Rockland County Comprehensive Plan. 2011. http://rocklandgov.com/departments/planning/comprehensive-plan.

<sup>6</sup> Seda Cellek. "Effect of the Slope Angle and Its Classification on Landslide," European Geosciences Union. May 2020. <a href="https://nhess.copernicus.org/preprints/nhess-2020-87">https://nhess.copernicus.org/preprints/nhess-2020-87</a>.

Figure 7-1 **Steep Slope Analysis** 







#### Town of Orangetown Steep Slope Analysis

beyond which development should be restricted. The Town already has regulations to restrict development on slopes greater than 25 percent: Town Code § 21-7.1 "Conservation Easements" authorizes the Planning Board to require a conservation easement on all real property with slopes exceeding 25 percent. In order to further protect steep slopes, the Town could begin regulating development parameters (e.g., use, size, etc.) for all new development on slopes greater than 8 percent.

For this Comprehensive Plan, a steep slope analysis of the Town of Orangetown was performed, identifying existing areas of concern as well as areas where development activity should be limited. This analysis highlights residential areas located on slopes that exceed 25 percent in the Villages of Grand View-on-Hudson and Piermont, as well as the hamlets of Tappan, South Nyack, and Sparkill. In the 2018 Rockland County Hazard Mitigation Plan, the then-Village of South Nyack (now, hamlet of South Nyack) declared landslide concerns due to development on steep slopes.<sup>7</sup>

The steep slope analysis classifies slopes based on the slope angle's relationship to development. These slope angle classes are standardized in the U.S. Department of Agriculture's soil surveys,<sup>8</sup> scientific literature on slope and landslides,<sup>9</sup> 10 and USGBC LEED steep slope requirements:<sup>11</sup>

0-3% - near level, good to develop

3-8% - gentle slope, fine to develop

8-15% - sloping, begin restricting development

15-25% - significant limitations to development

25-50% - completely avoid development

50% and above - completely avoid development

Slopes of 15-25 percent pose substantial restraints to environmentally responsible development, while slopes of 8-15 percent can already implicate structural safety and environmental concerns; therefore, as a precautionary measure, it is advisable to begin regulating development on slopes in the 8-15 percent range.

#### **NYSDEC Critical Environmental Areas**

In the Town of Orangetown, Critical Environmental Areas require particular attention because recent severe storms have led to increased flooding on the steep slopes in these areas.<sup>12</sup> Critical Environmental Areas (CEAs) are defined by the NYSDEC as geographic areas that possess "exceptional or unique character" meeting one or more of the following

<sup>7 &</sup>quot;Section 5.4.4: Risk Assessment – Flood," Rockland County Hazard Mitigation Plan, 2018. <a href="https://www.rocklandhmp.com">https://www.rocklandhmp.com</a>.

<sup>8 &</sup>quot;Slope Gradient," U.S. Department of Agriculture. 2016. https://www.nrcs.usda.gov.

<sup>9</sup> Seda Cellek. "Effect of the Slope Angle and Its Classification on Landslide," European Geosciences Union. May 2020. https://nhess.copernicus.org/preprints/nhess-2020-87.

<sup>10</sup> Detlef Deumlich. "The Slope Association Type as a Comparative Index for the Evaluation of Environmental Risks," MDPI. September 2021. <a href="https://www.mdpi.com/2073-4441/13/23/3333">https://www.mdpi.com/2073-4441/13/23/3333</a>.

<sup>11 &</sup>quot;Steep slope protection," LEED ND: Plan v4 - LEED v4.

<sup>12 &</sup>quot;Flooding and Water Volume," Orangetown Environmental Committee Recommendations for the Orangetown Comprehensive Plan, January 21, 2022. pg. 3. https://www.orangetown.com.

#### **NYSDEC Critical Environmental Areas**

conditions: 1) benefits or threatens human health; 2) a natural setting, such as habitat, forest, open space, and areas of scenic or aesthetic quality; 3) embodies agricultural, cultural, social, historic, archeological, recreational, or educational value; or 4) sensitive ecological, geological, or hydrological conditions that may be adversely affected by any disruption.13

The following five areas have been designated by the Town of Orangetown as CEAs:14 15 16

- The entire area within the former Village of South Nyack the entire area is designated as three CEAs: CEA 1 – Hudson River Area; CEA 2 – Run-Off Area; and CEA 3 - Mountainous Area;17
- The hamlet of Upper Grandview and environs in Orangetown exceptional or unique character as a natural setting and geological sensitivity;
- Palisades slope area protect open space and aesthetic;
- Sparkill Creek area CEA with several references to its water quality and protection; and
- The pier areas of Piermont (which together comprise the entire Village of Piermont) - protect open space & aesthetic beauty.

Most of the CEAs in the Town of Orangetown have received their designation for open space protection and aesthetic value. Among the CEAs, Upper Grandview and environs, Palisades slope area, South Nyack area, and Sparkill Creek have steep slopes and are areas that require protection and mitigation against flooding and erosion.

Development proposed within a CEA requires a more stringent review process including an Environmental Assessment Form (EAF) or Environmental Impact Statement (EIS). Additionally, the Town Code has set restrictions on blasting,18 land clearing, and tree removal19 and requires a permit for new construction, modification, and additions within CEAs.<sup>20</sup>

<sup>13 &</sup>quot;Critical Environmental Areas," Hudson River Estuary Program, NYSDEC. https://www.dec.ny.gov/docs/ <u>remediation\_hudson\_pdf/ceafactsheet.pdf</u>.

<sup>14 &</sup>quot;7.0 Natural and Environmental Resources," Rockland Tomorrow: Rockland County Comprehensive Plan. 2011. http://rocklandgov.com/departments/planning/comprehensive-plan.

<sup>15</sup> Village of South Nyack. http://southnyack.ny.gov.

<sup>16 &</sup>quot;Critical Environmental Areas," Hudson River Estuary Program, NYSDEC.

<sup>17 &</sup>quot;Chapter 5: Community Character," Tappan Zee Hudson River Crossing Environmental Impact Statement. July 2012. https://www.newnybridge.com/documents/feis/vol1/05-community-character.

<sup>18 &</sup>quot;Chapter 13 Explosives," Town of Orangetown Town Code, adopted 1998. https://ecode360.com/ OR0091.

<sup>19 &</sup>quot;Chapter 21 Land Development Regulations," Town Code, amended 1999. https://ecode360. com/26863402.

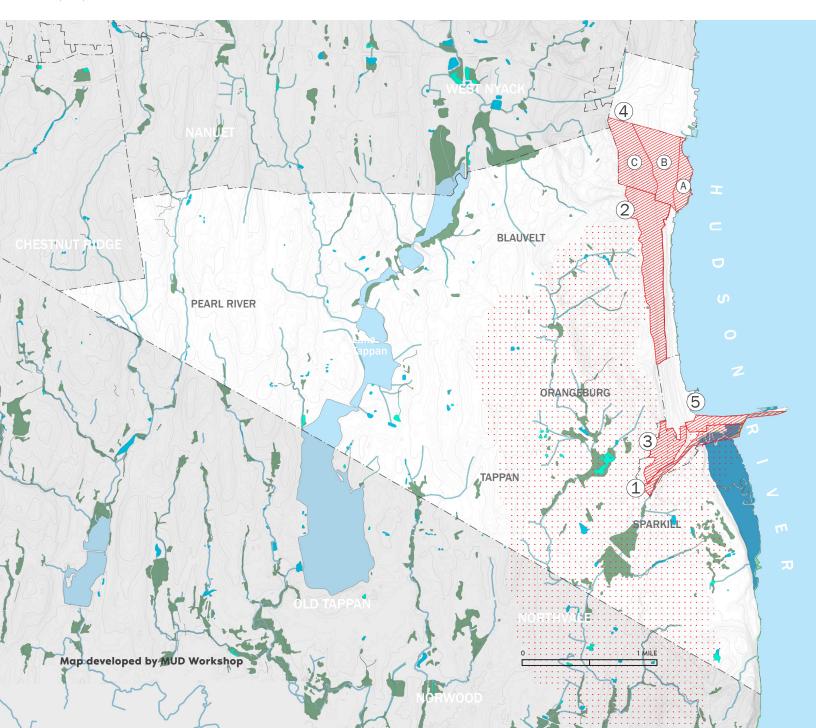
<sup>20 &</sup>quot;Chapter 43 Zoning," Town Code. Section 10.223.(g), amended 1994. https://ecode360. com/26866922.

Figure 7-2

Hydrology, Wetlands, and Environmentally Sensitive Areas



- Critical
  Environment Areas
- Sparkill Creek [Water quality and protection]
- 2 Upper Grand View and Enivrons [Exceptional or unique character]
- 3 Palisades Slopes
- (4) Hamlet of South Nyack
  [A. Hudson River/B.
  Runoff/C. Mountainous]
- 5 Village of Piermont [Protect open space & aesthetic beauty]





Grandview overlooking the Hudson River and the Tappan Zee Bridge © AKRF

# Hydrological Systems (Waterbodies + Wetlands)

#### **Waterbodies**

#### Lake Tappan

Formed by the convergence of the Hackensack River and Nauraushaun Brook, Lake Tappan is surrounded by large areas of adjacent green space including Kaufmann Campgrounds, Manhattan Woods Golf Course, Blue Hill Golf Course, Rockland Psychiatric Center, and Veterans Memorial Park.<sup>21</sup> The lake is an engineered reservoir supplying drinking water to Rockland County, parts of New Jersey, and the New York City metropolitan area. The reservoir is owned and managed by Veolia, a private utility company, and comes under NYSDEC protection. There are wheelchair accessible docks along Lake Tappan. However, recreational activities are limited, and a permit from Veolia is required for fishing, birding, and hiking.

#### **Hudson River**

In terms of historical impact on development, commerce, and scenic beauty, the most prominent water resource in Orangetown is the Hudson River. The Hudson River is central to the Town's geographic identity and is a resource for recreation and tourism, offering water activities and stunning viewsheds. Ecologically, the river is critical for nutrient cycling, primary

<sup>21 &</sup>quot;Orangetown Environmental Committee Recommendations for the Orangetown Comprehensive Plan," January 21, 2022.

production, and habitat diversity. The Hudson River Estuary is an essential part of the North Atlantic coastal ecosystem.

### **County-Regulated Streams**

The Rockland County Stream Control Act (1976) identified five County-regulated streams in the Town of Orangetown: Sparkill Creek, Hackensack River, Nauraushaun Brook, Muddy Creek, and Pascack Brook. These streams require permits and carry restrictions on development and related activities within their 100-year floodplain. All County-regulated streams in Orangetown face water quality challenges to various extents. Major causes of water pollution include, but are not limited to, development predating stormwater regulations (especially surrounding Sparkill Creek), sediment and contaminants from steep slope erosion, poor drainage due to disturbed natural hydrology, and surface pollutants from impermeable surfaces that get carried with run-off.

#### **Sparkill Creek**

Another significant waterbody is Sparkill Creek, which spans the southeastern section of the Town with an associated system of floodplains and wetlands. Sparkill Creek's 11.1-square mile watershed area is managed by at least four organizations, including Rockland County, the Town of Orangetown, and the Sparkill Creek Watershed Alliance, amongst others. This watershed area faces flooding, water pollution, and sediment accumulation issues.

#### Hackensack River

The Hackensack River is a NYSDEC Class A drinking water stream. The Hackensack River is classified by the NYSDEC as a "moderately impacted" stream, with monitoring results indicating compromised water quality.<sup>22</sup> The biological community's pristine state is disrupted, restraining fish, shellfish, and wildlife reproduction, but usually does not compromise survival. Water quality has improved since 2006.

#### Nauraushaun Brook

Nauraushaun Brook is a NYSDEC Class A drinking water stream. Nauraushaun Brook is classified as a "moderately impacted" stream.<sup>23</sup> There are parts of the brook that have become a swamp due to drainage issues.<sup>25</sup>

#### **Muddy Creek**

Muddy Creek flows north-south through Pearl River and is part of open areas set aside by the Town for recreation purposes. It is classified by NYSDEC as a "moderately impacted" stream.

#### **Pascack Brook**

Pascack Brook is a tributary of the Hackensack River flowing through Pearl River and is set aside by the Town for recreational purposes. Pascack Brook is classified as a "moderately impacted" stream. In Orangetown, Pascack Brook flows through and is associated with Pascack Brook Town Park, a natural area offering fishing, walking, and other passive recreational activities.

<sup>22 &</sup>quot;Fact Sheet on Assessment of Water Quality Impact in Streams and Rivers." NYSDEC. <a href="https://www.dec.ny.gov/docs/water\_pdf/bapnarrative18.pdf">https://www.dec.ny.gov/docs/water\_pdf/bapnarrative18.pdf</a>.

<sup>23</sup> Ibid.

<sup>24 &</sup>quot;Standard Operating Procedure: Biological Monitoring of Surface Waters in New York State," NYSDEC Division of Water. April 2021. <a href="https://www.dec.ny.gov/docs/water\_pdf/sop20821biomonitoring.pdf">https://www.dec.ny.gov/docs/water\_pdf/sop20821biomonitoring.pdf</a>.

<sup>25</sup> Rochel Leah Goldblatt, "Nanuet: Officials say there's no easy fix for overgrown Nauraushaun Brook," LoHud. September 24, 2019.

#### **Minor Tributaries**

Orangetown has numerous minor tributaries branching off from the major rivers and streams that are part of the hydrological drainage system. These tributaries serve important ecological functions by connecting different watersheds, thus enhancing floodplain connectivity, contributing to groundwater recharging, forming passageways for nutrient transport, and providing unique habitats and spawning sites for aquatic organisms.<sup>26</sup> Minor tributaries also give rise to a broad network of bankside vegetation and trees that offer erosion protection and climate resiliency.<sup>27</sup>

#### **Wetlands, Marshes, Estuaries**

Orangetown has several NYSDEC-designated wetlands that are concentrated on the northern portion of Lake Tappan, the intersection of NY State Route 303 and the Town's northern border, and on either side of the PIP closest to the Town's southeastern border. There is also a variety of wetlands and marshes recognized in the National Wetlands inventory, including Piermont Marsh, one of the four marshes in the Hudson River Estuary Program. Wetlands in auto-dominated suburban areas are particularly valuable, counteracting the greatly increased rate and volume of runoff from impervious paved surfaces. Together with other water retention strategies, preserving and reconstituting wetlands can often provide a level of flood control comparable to costly dredge operations and levees.

#### **NYSDEC Wetlands**

Wetlands larger than 12.4 acres are protected and mapped by the NYSDEC. Any construction activity that may impact these wetlands is regulated, whether it is situated within the wetland itself or its 500-foot buffer. NYSDEC wetlands are located around the northern portion of Lake Tappan as well as near a section of the PIP by the southeastern Town boundary.

#### National Wetlands Inventory (NWI) Wetlands

#### **NWI Wetlands and Deepwater Habitats: Category Definitions**

The NWI Wetland categories found in the Town of Orangetown include: estuarine and marine deepwater, estuarine and marine wetland, freshwater emergent wetland, freshwater forested/shrub wetland, freshwater pond, lake, and riverine. Freshwater emergent wetland can be found in the hamlet of Palisade along the PIP, while estuarine and marine deepwater and wetlands are located at Piermont Marsh and along the Hudson River. Piermont Marsh is a tidal/freshwater wetland, one of only four such features in New York State. Piermont Marsh includes brackish tidal marshes, shallows, and intertidal flats.

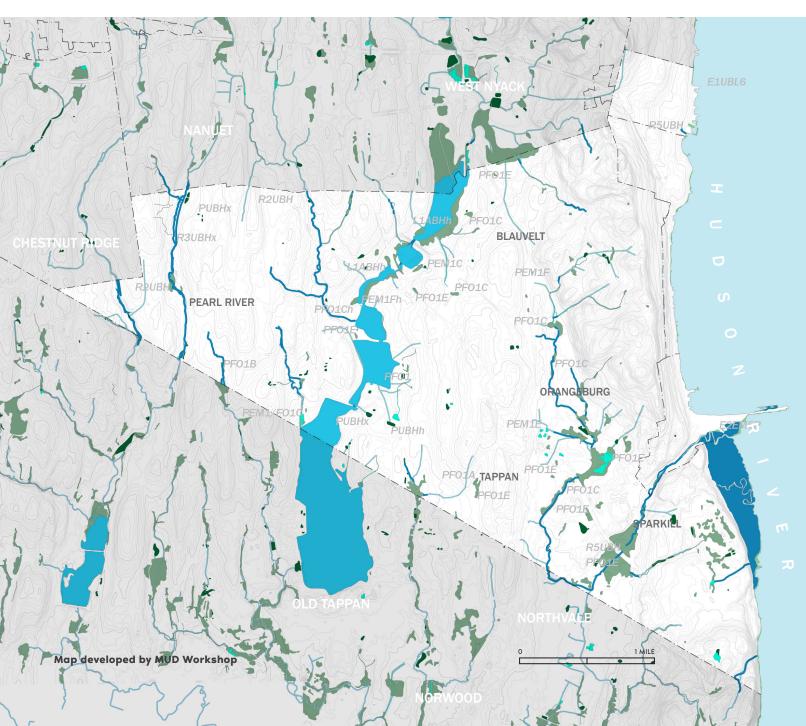
Figure 7-3 illustrates the general location of wetland habitat categories in the Town of Orangetown. The figure is based on the following NWI wetland habitat definitions:

<sup>26</sup> Gabriele Consoli. "Tributary effects on the ecological responses of a regulated river to experimental floods," Science Direct. 2022. https://www.sciencedirect.com/science/article/pii/S0301479721021848.

<sup>27</sup> Stephen Philip Rice; et al., "The Ecological Importance of Tributaries and Confluences." River Confluences, Tributaries, and the Fluvial Network, 2008. http://dx.doi.org.

Figure 7-3
Wetland Existing Conditions





#### Estuarine and Marine Deepwater (E1)

Deepwater tidal habitats and adjacent tidal wetlands that are semi-enclosed but have access to the open ocean, in which ocean water mixes with freshwater runoff from land. These habitats are located below extreme low water and continuously submerged.

#### Estuarine and Marine Wetland (E2)

Deepwater tidal habitats and adjacent tidal wetlands that are semi-enclosed but have access to the open ocean, in which ocean water mixes with freshwater runoff from land. These habitats are flooded and exposed by tides and include the associated splash zone.

#### Freshwater Emergent Wetland (PEM)

PEM wetlands include low-salinity tidal wetlands and non-tidal wetlands dominated by emergent perennial plants and low-salinity wetlands.

#### Freshwater Forested/ Shrub Wetland (PFO, PSS)

Low-salinity tidal wetlands and non-tidal wetlands characterized by woody vegetation that is 6 meters tall or taller as well as shrubs and scrub 6 meters or less.

#### Freshwater Pond (PUB, PAB)

Include non-tidal and low-salinity tidal wetlands and deepwater dominated by plants that generally grow on or below the surface of the water and have vegetative cover less than 30 percent.

- **Lake (L)** Includes wetlands and deepwater habitats that are situated in a topographic depression or a dammed river channel, lacks significant vegetation covering, and has a total area of at least 20 acres.
- **River (R)** Includes all wetlands and deepwater habitats contained within a channel not dominated by vegetation.

## **Ecological Role**

In conclusion, the Town of Orangetown is home to a rich system of waterbodies and wetlands that have an invaluable ecological role and mitigate impacts of climate change. Wetlands, in particular, are important to Orangetown because they act as natural detention basins to reduce flooding risks, provide shoreline erosion control, and maintain water quality by absorbing nutrient and pollutant runoff. Many of these hydrological features, however, are near transportation infrastructure and impervious paved surfaces of wide roadways and parking lots. Waterbodies and wetlands can be further protected for improved water quality and mitigating flood impact.



A frozen Hudson River from Piermont © AKRF

# Flooding

As highlighted earlier in this chapter, flooding is the most significant environmental concern for Orangetown. It is aggravated by overwhelmed stormwater infrastructure, increasing areas of impervious surfaces (especially near hydrological bodies), and development that predates stormwater regulations (especially on steep slopes).<sup>28</sup> There are numerous residential areas and other active land uses situated within flood zones adjacent to the Hudson River, as well as near lakes, creeks, and marshes in Orangetown. Flooding in developed areas contributes to pollutants entering and degrading the Town's waterbodies. Much of floodwater is untreated and carries with it surface pollutants and debris, such as traces of gasoline, lawn care chemicals, microplastics, and street litter, into waterbodies including Sparkill Creek, wetlands along the PIP, and other sensitive ecosystems.<sup>29</sup>

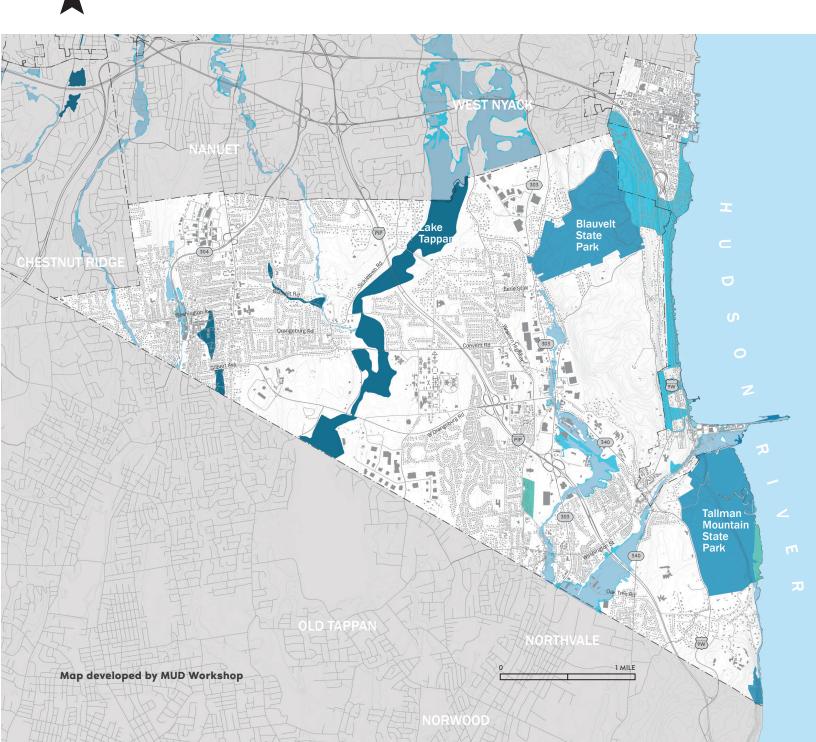
As shown in **Figure 7-4**, the areas under high risk include:

- Sparkill Creek
- Highway infrastructure such as NY State Route 303
- Areas in the hamlets of Sparkill and Tappan
- Village of Piermont
- Muddy Brook
- Pascack Creek

<sup>28 &</sup>quot;Orangetown Environmental Committee Recommendations for the Orangetown Comprehensive Plan," January 21, 2022.

Figure 7-4 **FEMA Flood Zones** 





Uses at risk include:

- · Infrastructure including roadways and other utilities such as the Rockland County Sewer along Sparkill Creek
- Businesses along Oak Tree Road
- Residential areas along Sparkill Creek, South Nyack, Piermont, and Grand View-on-Hudson

The 2018 Rockland County Hazard Mitigation Plan (HMP) provides the land area and population impacted as well as financial loss incurred by incidents of 100-year and 500-year floods in the Town of Orangetown. According to the HMP estimations, a 1 percent flood event in Orangetown would impact 26.1 percent of land, 1.2 percent of the population, and cost \$181,745,000 for total replacement of affected building stock. A 0.2 percent flood event in Orangetown would impact 27.4 percent of land, 2.8 percent of the population, and cost \$336,204,000 for total replacement of affected building stock.30 While Figure 7-4 does not show 26.1 percent of Orangetown's land being impacted by flooding, the analysis in the HMP arrived at these statistics using finite assessment methods and parameters.<sup>31</sup>

The Town of Orangetown experiences the following types of flooding:32

#### **Riverine Flooding**

Along a channel, which can happen along the Hudson River and other rivers and streams.

#### **Shallow Flooding**

In flat areas where a lack of channels means water cannot drain away easily. Much of shallow flooding is caused by urban drainage issues and an abundance of paved surfaces.

#### **Storm Surge**

As an estuarine river that enters the ocean, the Hudson River is at risk for storm surge moving up the river from the ocean due to hurricanes. The Village of Piermont was one of the Rockland County municipalities that sustained the greatest damage in Superstorm Sandy.

#### Flash Flooding

Rapid flow of high water into a normally dry area, or rapid water level rise in a stream due to severe storm.<sup>33</sup> Flash floods are more likely to occur where rivers are narrow and steep, especially in urban environments with extensive impervious surfaces and overdevelopment. In the Town of Orangetown, there were flash flood incidents in 2014, in which vehicles became trapped in high water on NY State Route 303 in Tappan and required water rescues. Areas near steep slopes surrounding Sparkill Creek are prone to flash flooding.

<sup>30 &</sup>quot;Section 5.4.4.- Flood," Rockland County Hazard Mitigation Plan (HMP), 2018. https://www.rocklandhmp.com.

<sup>31</sup> As stated in the Rockland County HMP, Section 5.4.4. Flood: "To estimate the population exposed to the 1- and 0.2-percent flood events, the floodplain boundaries were overlaid upon the 2010 U.S. Census population data in GIS (U.S. Census 2010). The 2010 Census blocks with their centroid in the flood boundaries were used to calculate the estimated population exposed to this hazard... Census blocks do not follow the boundaries of the floodplain and can grossly over or underestimate the population exposed when using the centroid or intersect of the Census block with these zones. The limitations of these analyses are recognized, and as such the results are only used to provide a general estimate."

<sup>32 &</sup>quot;7.0 Natural and Environmental Resources," Rockland Tomorrow: Rockland County Comprehensive Plan. 2011. http://rocklandgov.com/departments/planning/comprehensive-plan.

<sup>33 &</sup>quot;Section 5.4.4.- Flood." HMP.

Several critical facilities are located in the 100- and 200-year floodplains. Some of these include the Blauvelt Post Office, John Paulding Engine Co #1, O & R Tappan Gate Station (gas), Pearl River EMS, Volunteer Fire Association of Tappan, and Orangetown Wastewater Treatment Plan. The Town has also identified locations vulnerable to flooding: NY State Route 303 at Mountainview Ave, Sparkill Creek, Van Terrace, Oak Tree Road at Corporate Drive, Oak Tree Road at Van Wort Drive, Brightwood Avenue Pearl River.<sup>34</sup>





Sparkill Firehouse after Hurricane Irene

Oak Tree Road after Hurricane Irene 35

The steep terrain of the Clausland Mountain, combined with the area's land use patterns, results in flooding issues for Sparkill Creek and intermittent streams in the Clausland Mountain area. Farabase for Sparkill Creek, along with its associated floodplain and wetlands, requires protection. The areas abutting the creek have development encroachments (developments that predate stormwater regulation) that contribute to excessive runoff. This runoff in turn compromises the watershed's drainage and environmental conditions, leading to flash flooding after severe storm events, such as Hurricane Irene. The 2022 Sparkill Creek Flood Mitigation & Resilience Report identified eight High Risk Areas (HRAs) along the course of Sparkill Creek and impacted critical infrastructure within the HRAs, such as bridges, power stations, and pump stations, that require site-specific strategies for flood mitigation.

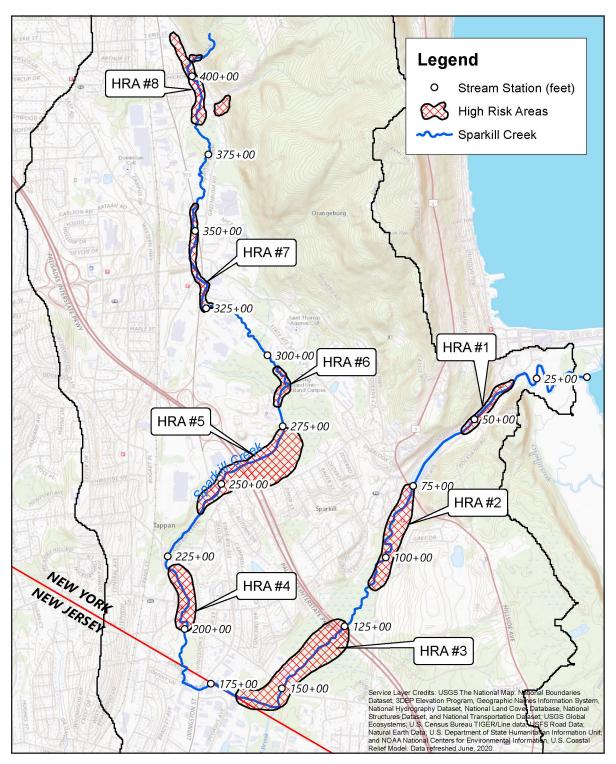
<sup>34 &</sup>quot;Chapter 9.14 – Orangetown," Rockland County HMP. 2018.

<sup>35</sup> Town of Orangetown "Sparkill Flooding Notes" <a href="https://www.orangetown.com/document/sparkill-flooding-notes/">https://www.orangetown.com/document/sparkill-flooding-notes/</a>

<sup>36 &</sup>quot;Environmental Constraints," "Land Use and Zoning," Town of Orangetown Comprehensive Plan. May 2003. https://www.orangetown.com/document/comprehensive-plan.

<sup>37</sup> NYSDEC and NYS Office of General Services, Sparkill Creek Flood Mitigation & Resilience Report.

Figure 7-5 **High Risk Areas along the Sparkill Creek** 



Source: NYSDEC, Sparkill Creek Flood Mitigation and Resilience Report, Jan 2022

#### **Stormwater**

Like the rest of the U.S. Northeast, stormwater infrastructure in Orangetown becomes overwhelmed during severe storm events with overflows from the Hamlets and Villages of Sparkill, Orangeburg, Nyack, and Piermont discharged into the Hudson River.<sup>38</sup> This excessive stormwater volume also causes damaging floods. The streams in Orangetown, especially Sparkill Creek, flood recurrently, which will become more prevalent due to increased severe storm events brought on by climate change.<sup>39</sup>

Destructive stormwater volume and velocity are the legacy of an era in which development that predated stormwater management plans neglected watershed protection. NYS stormwater management policy cannot simply be applied to new construction and development, as the current issues are inherited from pre-existing development. Relevant improvement strategies include retrofitting existing public stormwater systems with green infrastructure (GI), requiring more robust landscaping and stormwater controls in development, incentivizing environmentally sustainable development, increasing ground permeability by decreasing the area of paved surfaces (including parking lots), and transitioning to and requiring permeable pavement.

The Town of Orangetown currently has a complete stormwater management plan approved by the EPA and NYSDEC. The Town has also been actively involved in implementing NYSDEC regulations by updating local laws and maintaining Stormwater Consortium of Rockland County membership. Other Town Code sections relevant to flooding include, Chapter 41 "Watercourse Diversion and Pollution," Chapter 30C "Stormwater Management," Chapter 30D "Sediment and Erosion Control Stormwater Management," and Chapter 14B, an NFIP Flood Damage Prevention Ordinance, which can also benefit from detailed updates.<sup>40 41</sup> The Town has utilized its stormwater management plan and relevant Town Code in the planning, design, and construction of multiple projects, such as the public-private partner-ship culvert replacement project over Sparkill Creek at Innovative Plastics, located at 400 NY State Route 303, Orangeburg. Additionally, the Town has replaced the Oak Tree Road Bridge in Tappan and is in the planning stage, with funding secured, for the replacement of the Mountainview Avenue culvert in Orangeburg.

## **Water Quality**

Originating on Clausland Mountain, Sparkill Creek's eleven square mile watershed is approximately 47 percent urban, 45 percent forested, and 8 percent wetland.<sup>42</sup> NYSDEC designated a portion of Sparkill Creek on the 303D list of impaired waterways, citing fecal coliform and oxygen demand. Rockland County Department of Health has delineated

<sup>38 &</sup>quot;Orangetown Environmental Committee Recommendations for the Orangetown Comprehensive Plan," January 21, 2022.

<sup>39 &</sup>quot;Section 5.4.6 - Severe Storm," Rockland County HMP. 2018.

<sup>40</sup> Authorized by the New York State Constitution, Article IX, Section 2, and Environmental Conservation Law, Article 36.

<sup>41 &</sup>quot;Chapter 9.14 - Orangetown," Rockland County HMP. 2018.

<sup>42 &</sup>quot;Sparkill Watershed Report Card," Rockland County Department of Environmental Resources. <a href="https://rocklandgov.com/files/2513/5394/1881/Sparkill.pdf">https://rocklandgov.com/files/2513/5394/1881/Sparkill.pdf</a>.

general groundwater protection zones; however, the Town has not yet implemented regulations for these zones, but could consider doing so in the future.<sup>43</sup>

## **Impervious Surfaces**

The impervious surfaces in Orangetown, including roadways, parking lots, and buildings, are concentrated in its Villages and Hamlets as shown in **Figure 7-6**. Many of these impervious areas are located within inundation zones, near waterbodies, and are contiguous with protected areas. This proximity leads to contaminated runoff flowing directly into these environmentally sensitive areas. Increasing impervious surface cover disrupts watershed hydrology and places the Town's hydrological system at risk. Impervious surfaces are a concern that breaches multiple categories, including flooding, water pollution, and wetland maintenance. Aged impervious surfaces may contain contaminants that require safe removal processes.<sup>44</sup> Therefore, where paved surfaces are required, the Town should utilize, incentivize, and require permeable pavements.

View of the Hudson River from Grand View © AKRF



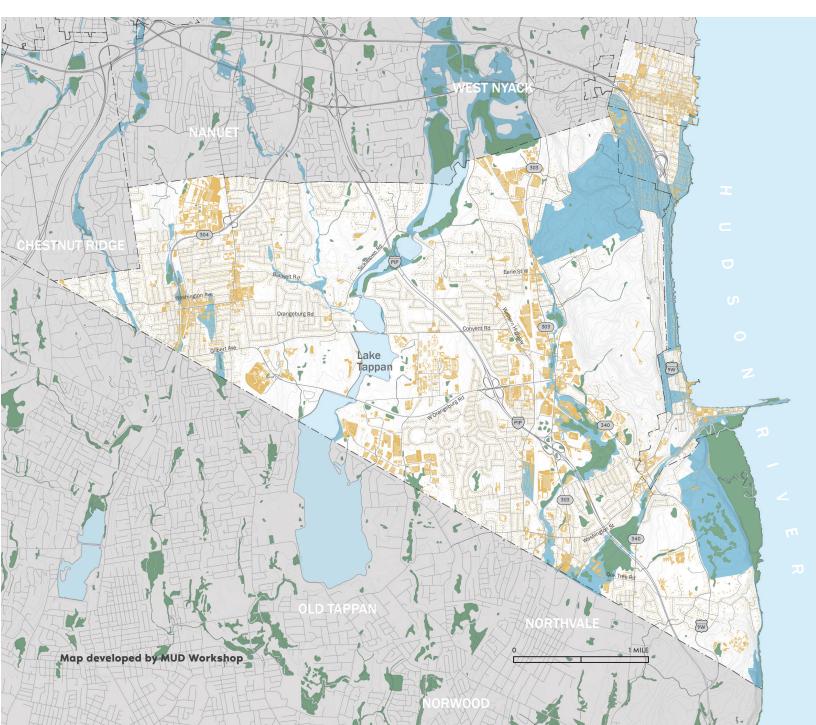
<sup>43 &</sup>quot;7.0 Natural and Environmental Resources," Rockland Tomorrow: Rockland County Comprehensive Plan. 2011. http://rocklandgov.com/departments/planning/comprehensive-plan.

<sup>44</sup> Ibid.

Figure 7-6 Impervious Surfaces, Wetlands, and Flood Zones









Commercial corridor in downtown Pearl River © AKRF

# Carbon Emissions

#### **Electric Grid Transition**

Because residential and commercial sectors consume the bulk of the energy supply in Orangetown, energy sustainability and resilience strategies adopted by the Town will have a powerful impact. In 2020, Orangetown joined the Rockland Community Power Community Choice Aggregation (CCA), an energy program that enables residents and small businesses to pool together local electricity demand and purchase renewable energy at a lower cost than non-renewable electricity supply. The Town works with Joule Community Power (Joule) and, along with the five other municipalities participating in the CCA program, chose Constellation Energy as their default supplier.<sup>45</sup>

However, currently the Town is defaulting to the CCA "standard" fossil fuel-based supply, with the option for residents and businesses to switch to the CCA 100 percent renewable supply. The Town should consider incentivizing and encouraging all residents and businesses to transition to 100 percent renewable energy.

## **Green Mobility**

The carbon emissions from transportation accounts for approximately 35.2 percent of the Town of Orangetown's total greenhouse gas (GHG) emissions.<sup>46</sup> As such, enhancing green mobility can be considered a priority for the Town to improve environmental health and

**35.2%** 

of the Town's greenhouse gas emissions land is due to carbon emissions from transportation.

<sup>45</sup> New York State Energy Research and Development Authority (NYSERDA) allows municipalities to establish Community Choice Aggregation (CCA) programs for buying or generating electricity for residents and businesses within their communities.

<sup>46</sup> NY Climate Smart Communities Mid-Hudson Regional Greenhouse Gas Emissions Inventory Table 26. "Rockland County; Total Emissions by Municipality and Sector."

#### **Green Mobility**

address NYS emissions targets. There are currently seven electric vehicle (EV) charging stations in Orangetown, and existing studies recommend increasing infrastructure for green vehicles and non-vehicular modes of mobility.

Another significant way to address carbon emissions is to improve green mobility infrastructure. As seen in the sidewalks map in **Figure 7-7**, the Town of Orangetown's system of sidewalks is discontinuous between and within hamlets. This presents an opportunity to form a more consolidated network of pedestrian access, connecting places of interest between homes, shops, schools, workplaces, cultural venues, etc., which would make walking and other non-vehicular modes of transit a more viable and practical option for the Town's residents and visitors. Along with reducing GHG emissions from vehicular transportation, sidewalks also provide space for recreation and exercise, thus contributing to healthier communities.<sup>47</sup> Moreover, studies show trends in property value increase for properties situated in walkable areas.<sup>48</sup>



E Central Avenue in walkable Pearl River © MUD Workshop

The 2018 Orangetown Bike Study recommends a robust local cycling network consisting of multimodal trails, non-vehicular routes, and off-road paths. The Town would benefit greatly from prioritizing the implementation of bike lanes and additions to the bike network. Beyond recreation, this bike path system can connect places of commerce, retail, and cultural establishments that people frequent, making biking a tenable and practical mode of transportation not only for leisure, but also for everyday errands and commuting. Walking and biking can be made more accessible and attractive by improving sidewalk and bike route connectivity and safety, as well as planting street trees and otherwise improving streetscapes.<sup>49</sup>

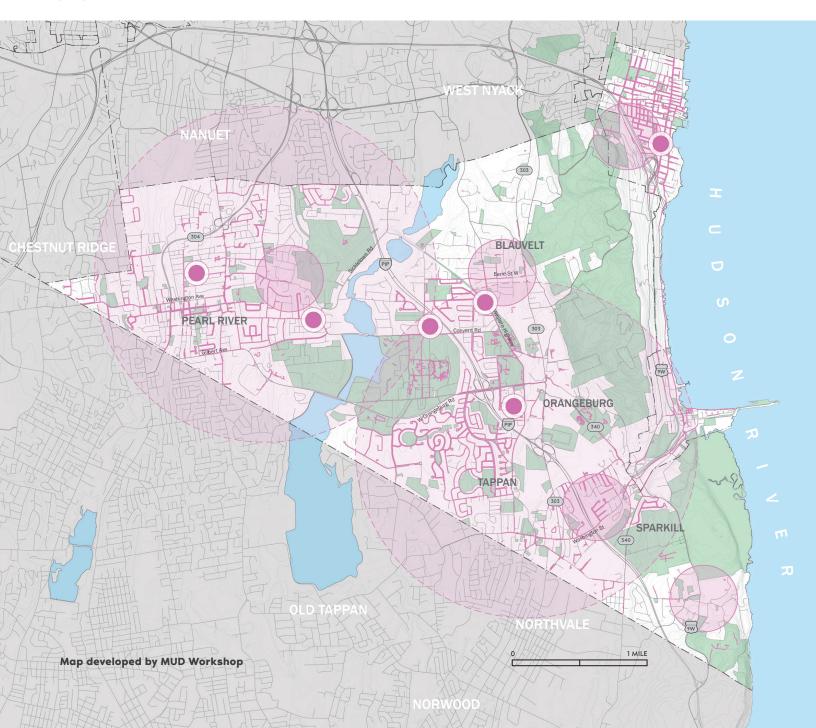
<sup>47 &</sup>quot;Orangetown Environmental Committee Recommendations for the Orangetown Comprehensive Plan," January 21, 2022.

<sup>48 &</sup>quot;How Much Does Walkability Increase the Value of a Home?" Redfin, February 11, 2020. https://www.redfin.com/news/how-much-does-walkability-increase-home-values/

<sup>49</sup> Orangetown Bike Study. 2018. https://www.orangetown.com.

Figure 7-7 **Walking and Biking Distances in** 







Central Avenue Field in Pearl River © AKRF

# Vision, Goals, and Objectives

The existing conditions highlight Town initiatives as well as environmental challenges and assets that can be leveraged to improve Orangetown's resilience into the future. To address stormwater and flooding issues, the Town has completed a culvert replacement project through a public-private partnership at Innovative Plastics in Orangeburg, replaced the Oak Tree Road Bridge in Tappan, planned the replacement of the Mountainview Avenue culvert in Orangeburg, and constructed an extensive green infrastructure project at the Rockland Homes for Heroes in Tappan. These are compelling local precedents that can be built upon to further strengthen the Town's stormwater management and flood resilience.

In terms of environmental challenges, the steep slopes assessment shows that the Palisades Ridge is of great scenic value but it is also the source of erosion hazards and flooding concern. As such, the Town could consider bolstering its development guidelines to protect and stabilize steep slopes.

Orangetown's hydrological system consists of a rich network of wetlands and several waterbodies, namely streams, impacted by moderate water quality concerns. The Town should consider protecting and reconstituting wetlands, and improving water quality by systemically addressing root causes of pollution.

Flooding, especially flash flooding, already is and will become an even more pressing issue due to climate change. In addition to retrofitting existing infrastructure, the Town should consider reducing impervious surfaces. Altogether, protecting and reconstituting the wetlands system, designating additional environmentally sensitive zones such as CEAs, establishing urban forestry and landscaping regulations, stabilizing and regulating development of steep slopes, and increasing permeable ground surface will aid in addressing the Town of Orangetown's flooding, slope erosion, and water quality concerns across the board. In addition, the Town could approach improving carbon emissions by switching to the 100 percent renewable energy CCA option, as well as favoring compact and infill development which in turn encourages pedestrians, biking, and other green mobility options, and reduces energy consumption, among other benefits.

#### **Proposed Implementation Strategies and Actions**

# Goal: Promote Sustainable Development and Plan for Climate Resiliency.

 Establish a Climate Working Group to seek funding for and to develop a Climate Action Plan.

Orangetown is not only registered with and applying for bronze-level certification with the NYS Climate Smart Community program, but also it is designated as a Clean Energy Community by the NYS Energy Research and Development Authority (NYSERDA). The Town could consider pursuing higher certifications for both programs.

The Town should also consider establishing a climate working committee to seek funding and oversee the development of a Climate Action Plan (CAP). At a minimum, the CAP would lay out a road map and targets for limiting community greenhouse gas (GHG) emissions, switching 100 percent of the Town's energy supply to renewable sources, providing green transportation alternatives as tenable and convenient mobility modes, defining climate mitigation, promoting environmental stewardship and sustainability, reducing our vulnerability to climate impacts, enhancing quality of life and livability of neighborhoods, boosting opportunities for climate-smart businesses and job creation, and improving public health and equity for all community members. To support project implementation, the CAP can establish guidelines for implementation plans and financial feasibility analysis for sustainability initiatives.

The CAP should be a living document which maps out a long-term vision, and also has the flexibility to accommodate and adapt to the evolving environmental context and climate threats. One of the ways in which it could do so is by annual reviews wherein the climate

working committee tracks the success and effectiveness of the CAP's strategies and makes updates where needed.

The CAP should also consider regional and municipal collaboration at the forefront for all major infrastructure projects, be they regional or local. Additionally, all new projects at the local level would benefit from reviews with a resiliency and climate change lens. For instance, given Orangetown's proximity to the Hudson River, all projects should consider sea level rise, net zero runoff, limited pervious surface, and other parameters. Finally, the CAP should establish a clear timeline with milestones, actions, and guidance for land use and zoning regulations.

 Mitigate the harmful impacts of flood events through development regulations and preventative measures, including steep slope ordinances.

There are many residential areas and other active land uses situated within floodplains bordering the Hudson River, streams, lakes, and marshes. Runoff from developed areas carries pollutants, such as gasoline, lawn care chemicals, and microplastics, which enter waterbodies, compromising water quality. Areas along the Town's watercourses, and especially Sparkill Creek, have been encroached upon by development that predates stormwater regulation. This lack of suitable infrastructure leads to excessive runoff compromising the watershed's drainage and flash flooding after severe storm events.

In Orangetown, steep slopes require circumspect management due to recent storm events causing increased flash flooding on such slopes, which are especially sensitive when situated within Critical Environmental Areas (CEAs).<sup>50</sup> It is therefore imperative to review the effectiveness of the Town's current Zoning Code and introduce flood mitigation measures. To protect steep slopes and reduce flooding, the Town should consider imposing ridgeline overlay zoning districts that regulate the number, height, placement, impacts, and design of structures located on ridgeline property.<sup>51</sup> Other steep slope protection strategies, some of which were also included in the 2003 Comprehensive Plan, include:

- Begin limiting and regulating development on slopes between 8 percent and 15 percent, with more stringent regulations for slopes between 15 percent and 25 percent.
- Introducing extra protective measures for buildings located on slopes exceeding 25 percent.

<sup>50 &</sup>quot;Orangetown Environmental Committee Recommendations for the Orangetown Comprehensive Plan", January 21, 2022.

<sup>51</sup> New York State Standards and Specifications for Erosion and Sediment Control (Blue Book) <a href="https://www.dec.ny.gov/chemical/29066.html">https://www.dec.ny.gov/chemical/29066.html</a>.

- Utilizing the natural terrain to minimize erosion when developing in slopes greater than 8 percent.
- Regrading that is cohesive with natural slopes and refrains from "cut and fill" (although soils found on Clausland Mountain may require cuts and fills as great as 33 percent).<sup>52</sup>
- New planting and replanting that comprises indigenous and climate resilient vegetation.

Other flood mitigation strategies can include:

- Developing and implementing a program of vegetated buffer zones and biotechnical slope stabilization methods with an emphasis on native planting.<sup>53</sup>
- Strictly limiting the addition of impervious surfaces, particularly when near hydrological bodies.
- Identifying and developing mitigation plans for areas at high risk of flooding, including improving public infrastructure.<sup>54</sup>
- 4 Limiting any new development in areas with high risk of flooding.
- Floodproofing and elevating wastewater pump stations, sewer treatment plants, and utilities infrastructure involving electrical equipment.
- 6 Enlarging and enhancing floodplains in key areas.
- Regularly maintaining culverts to keep inlets free of debris.
- 8 Widening channelized sections of key waterbodies.
- 9 Replacing undersized stream crossings.
- 10 Initiating timely road closures to prevent vehicular incidents when flooding occurs. 55
- Collaborating with the Rockland County Drainage Agency (RCDA) to create flood mitigation strategies and manage County regulated streams.<sup>56</sup>
- Establishing drainage districts for each of the Town's drainage areas including Sparkill Creek, Hackensack Creek, Muddy Creek, Cherry Brook, and Pascack Brook.<sup>57</sup>
- Pursuing flood mitigation projects recommended by existing flood and hazard mitigation plans, such as the 2018 Rockland County Hazard Mitigation Plan.

<sup>52 2003</sup> Orangetown Comprehensive Plan.

<sup>53</sup> Gray, Donald, Biotechnical and Soil Bioengineering Slope Stabilization.

<sup>54</sup> NYS Floodplain Management https://www.dec.ny.gov/lands/24267.html.

<sup>55</sup> NYSDEC and NYS Office of General Services, Sparkill Creek Flood Mitigation & Resilience Report.

<sup>56 2003</sup> Orangetown Comprehensive Plan.

<sup>57 2003</sup> Orangetown Comprehensive Plan.

 Review and update local regulations to promote resilient construction practices, manage stormwater, and reduce flooding.

The Town should consider enhancing development guidelines to reduce pollutants in stormwater runoff. Town Code Chapter 30D "Sediment and Erosion Control Stormwater Management" effectively addresses construction and post-construction runoff by requiring State Pollutant Discharge Elimination System (SPDES) general permits for construction activity. To further enhance the discharge accountability of developments, the Town should consider adopting a "net zero" runoff policy for all developments and consulting the NYS Stormwater Design Manual to codify resilient construction practices and develop specific protocol for construction sites. The Town follows NYS code in requiring compliance with the most up-to-date stormwater control measures for proposed building applications with greater than one acre of disturbance. This minimum acreage from NYS code is not sufficient to protect smaller environmentally sensitive parcels, and the Town could consider extending compliance and Stormwater Pollution Prevention Plan (SWPPP) requirements to sites under one acre. Furthermore, the Department of Environmental Management and Engineering, the Planning Board, and the Town Board can consider providing guidelines for:

- Regulating the size of construction envelopes.
- 2 Limiting the amount of cut and fill.
- Adopting low-impact development methods that maintain a site's natural hydrology.
- 4 Retaining vegetation and natural landscapes.
- 5 Encouraging use of resilient and repurposed construction materials.
- Employing bioretention methods, permeable paving, and/or vegetated swales instead of paved gutters for new development and redevelopment projects.
- Map stormwater conveyance including drainage areas, outfalls, and discharge points for all of Orangetown's municipalities.

The Town, in collaboration with Rockland County, should consider mapping stormwater conveyance, drainage areas, outfalls, and discharge points for all of its municipalities. Developing a GIS-based stormwater network geodatabase would allow for improved stormwater analysis and data-driven management strategies. This geodatabase could be updated when new infrastructure is built and when inaccuracies in existing data require correction. To take on this effort, the Town could consult NYS Department of Transportation

literature including "Methodology for the Identification and Survey of Stormwater Outfalls,"<sup>59</sup> "Guidance on Outfall Mapping,"<sup>60</sup> and ESRI's Water System Mapping guide.<sup>61</sup>

 Improve water quality by addressing root causes of contamination, protecting wetlands and watersheds, and aiding their ecological role.

To control and improve Sparkill Creek's water quality, the Town should consider creating a riparian buffer (of a suggested 500 feet on either side of Sparkill Creek), which limits development (e.g., strip malls and warehouses are not advised, but permeable parking lots could be introduced) and requiring zero runoff on all new projects and construction sites, irrespective of size. The existing Sparkill Creek Critical Environment Area covers the areas adjacent to the creek tributary from NY State Route 340 to Piermont Marsh, and can be expanded to include more of the watershed. Green Infrastructure (GI) could also be a required component with each new development activity within this riparian buffer, eventually resulting in an integrated network of GI within the buffer zone. Furthermore, watercourse monitoring, clean-up, and environmental protection efforts could be coordinated with the Sparkill Creek Watershed Alliance. Another major waterbody without water quality protection measures is Lake Tappan, a drinking water reservoir owned and managed by Veolia. Currently, there are no regulations protecting the lake's watershed and runoff area. It is therefore critical to introduce protective measures such as measuring and limiting runoff, and defining land uses surrounding Lake Tappan.

Orangetown's rich system of wetlands also require further protection, as many of them have been disrupted by transportation infrastructure such as expanding roadways, sprawling parking lots, and other impervious surfaces. The Sparkill Creek Flood Mitigation & Resilience Report, released January 2022, estimates that approximately 50 to 60 percent of the wetlands in NYS have been lost to draining, filling, and other types of alteration. 62 Recently, the NYSDEC marshland near the intersection of NYS Route 303 and Oak Tree Road was filled in to accommodate development.

As such, the Town should consider the following strategies that expand on existing Town Code protections for waterbodies, watercourses, and wetlands:

<sup>59</sup> NYSDOT Methodology for the Identification and Survey of Stormwater Outfalls <a href="https://www.dot.ny.gov/divisions/engineering/environmental-analysis/water-ecology/stormwater-management">https://www.dot.ny.gov/divisions/engineering/environmental-analysis/water-ecology/stormwater-management</a>.

<sup>60</sup> NYSDOT "Guidance on Outfall Mapping." <a href="https://www.dot.ny.gov/divisions/engineering/environ-mental-analysis/repository/OutfallGuidance.pdf">https://www.dot.ny.gov/divisions/engineering/environ-mental-analysis/repository/OutfallGuidance.pdf</a>.

<sup>61</sup> ESRI Water System Mapping. <a href="https://www.esri.com/en-us/industries/water-utilities/segments/small-systems">https://www.esri.com/en-us/industries/water-utilities/segments/small-systems</a>.

<sup>62 &</sup>quot;Flood Mitigation & Resilience Report – Sparkill Creek SD115." (January 2022). NYSDEC. <a href="https://www.dec.ny.gov/docs/water\_pdf/sparkillpt1.pdf">https://www.dec.ny.gov/docs/water\_pdf/sparkillpt1.pdf</a>.

- Implementing regulations for general Groundwater Protection Zones, as delineated by Rockland County Department of Health.<sup>63</sup>
- Strictly defining watercourses and wetlands; introducing watercourse overlay districts to establish buffer zones; setting appropriate widths for such buffer zones; and establishing zoning standards for development, construction, and human activities within these buffer zones.<sup>64</sup>
- Designating and registering wetlands, streams, and other waterbodies as Critical Environmental Areas with NYS. These areas should include identified aquifer recharge zones.
- Developing a Town wetlands protection ordinance that adheres to federal guidelines for regulating landscaping chemicals and pollution from run-off, as well as promoting alternatives to toxic landscaping chemicals.
- Coordinating with the Palisades Interstate Parkway and NYS Thruway Authority to minimize the use of road salt on these highways.
- Complementing State laws by regulating smaller wetlands that do not qualify for protection under NYSDEC regulations.<sup>65</sup> The Town should consider disregarding the minimum area requirement of 12.4 acres under NYSDEC regulations, and preserve all wetlands and waterbodies with very limited exceptions by permit.
- Developing a Town drought management plan, that integrates existing County and State emergency plans with drought resilience planning including best land-scaping and urban forestry practices, water conservation guidelines, and green infrastructure.

<sup>65</sup> The NYSDEC Freshwater Wetlands Program only protects wetlands larger than 12.4 acres.



Algal bloom in Hackensack River © MUD Workshop

<sup>63</sup> Rockland Tomorrow: Rockland Country Comprehensive Plan (2011)

<sup>64</sup> NYS Department of State (DOS), Guidebook on Watershed Plans



Grass-covered athletic grounds in Pearl River © MUD Workshop

 Establish a green infrastructure and structural retrofitting program to reduce phosphorus, nitrogen, and pathogen loading.

Both the quantity and quality of stormwater runoff can be controlled to a considerable degree by introducing green infrastructure (GI) systems, which employ plant and soil systems to infiltrate, evapotranspire, and reuse stormwater where it falls. Depending on the context, there are a range of GI approaches that can be applied to collect, clean, and permeate stormwater. These approaches include the utilization of green roofs, tree trenches, rain gardens, vegetated swales, pocket wetlands, infiltration planters, vegetated median strips, reforestation, and protection and enhancement of riparian buffers and floodplains.

The Town has constructed a green infrastructure project at the Rockland Homes for Heroes, which sets a compelling precedent. Located in Tappan, the project featured the development of a 3.6-acre bioretention and stormwater wetland, which acts as a water treatment basin for the surrounding 151-acre drainage area. The project eliminates impervious surfaces, reduces runoff quantity, encourages infiltration, and improves Sparkill Creek's water quality. The Town removed approximately 25,000 cubic yards of asphalt and constructed a bioretention and stormwater wetland that is approximately 5 acre-feet

in volume, which treats and stores a drainage area of around 20 acres. As such, the Home for Heroes is a zero-runoff site that provides robust water filtration through its ecological performance. Furthermore, the Town has installed rain gardens at multiple locations including the Highway Drop-Off Center, Orangeburg Library, and completed the culvert replacement project at Innovative Plastics. Building on these efforts, the Town could consider the following to further manage the quantity and quality of stormwater runoff:

- Requiring all new off-street parking to use permeable surfaces. Where possible, redeveloping existing impermeably-paved parking lots with permeable surfaces, and removing paving from vacant land. The NYS Stormwater Management Design Manual can be a reference for design specifications.
- Reassessing rules for minimum parking requirements to verify that they reflect the true requirement; consider reducing off-street parking minimums.
- Requiring the use of permeable paving for overflow parking and snow removal areas.
- Including GI practices and infrastructure in Complete Street design specifications and referring to NYS Stormwater Management Design Manual for planning and implementation.
- 5 Providing assistance with and facilitating NYS GI Grant applications.<sup>67</sup>
- Educating and encouraging property owners to incorporate GI features for capturing stormwater.
- Developing requirements for runoff from sidewalks and streets in urban areas to be directed into below-grade drainage systems. Where possible, grading sidewalks and roadways to drain into landscaped areas rather than onto hardscape.
- Requiring all new subdivisions to include stormwater treatment for new roads in accordance with NYS requirements.
- Considering setting limits to impervious surface area on any lot, so that a portion of the overall permitted land coverage is permeable, and ensuring that permeable areas are maintained as such.

<sup>66</sup> Town of Orangetown "Homes For Heroes Green Infrastructure Bio-Retention & Stormwater Wetlands Project" <a href="https://www.orangetown.com/wp-content/uploads/H4H\_GIP.pdf">https://www.orangetown.com/wp-content/uploads/H4H\_GIP.pdf</a>

 $<sup>67\ \</sup> NYSDEC\ "Green\ Infrastructure\ Funding\ Sources"\ \underline{https://www.dec.ny.gov/chemical/108961.html}.$ 

 Expand on existing stormwater public awareness programs to include a wider range of stakeholders and educational information.

The Town of Orangetown should consider expanding their existing Municipal Separate Storm Sewer System (MS4) public awareness program to include a wider range of stakeholders and educate them about the impacts of phosphorus, nitrogen, and pathogens on waterbodies. Educational programs and strategies can include establishing programs such as "Adopt a Catch Basin," more actively advertising the Stormwater Consortium of Rockland County's trainings and seminars, encouraging community cleanups, hosting local outreach workshops with compact curriculums, and conducting walking tours of Orangetown stormwater infrastructure. Beyond existing MS4 public programs, local education programs can be formed through partnerships with the Stormwater Consortium of Rockland County, Orangetown Department of Environmental Management and Engineering, Orangetown Environmental Committee, Office of Parks and Recreation, local schools and school districts, and community organizations.

At a minimum, the educational materials should include:

- 1 Impacts of stormwater discharges on waterbodies.
- Pollutants of concern and their sources.
- 3 Actions to reduce pollutants in stormwater runoff.
- 4 Hazards associated with illicit discharge and improper disposal of waste.
- 5 Ways to report illicit discharges and water quality issues.

## Reduce carbon emissions and promote healthier air quality.

As of 2012, Orangetown's transportation sector generated approximately 35.2 percent of the Town's total GHG emissions, while industrial processes accounted for 9.2 percent.<sup>68</sup> The hamlet of Orangeburg is especially affected by truck deliveries and light industrial use, as residents have reported concerns over the proliferation of warehouses and increasing truck volumes that exacerbates traffic, noise, and vehicle emissions. However, this is not a localized condition, as 44 percent of Orangetown residents who responded to the Comprehensive Plan online survey believe that there is excessive truck and vehicular traffic in their neighborhood. The Town could examine the following GHG reduction approaches:

Creating and enforcing regulations to limit air pollution coming from light industrial zoned areas, especially those close to residential neighborhoods.

<sup>68</sup> NY Climate Smart Communities Mid-Hudson Regional Greenhouse Gas Emissions Inventory, Table 26. "Rockland County; Total Emissions by Municipality and Sector".

- Setting clear targets and providing timeline and guidelines for reducing GHG emissions.
- Limiting truck traffic and deliveries during peak hours by incentivizing businesses to choose overnight or off-hour deliveries.
- Rerouting truck traffic from residential areas and schools to major highways and roads.
- Creating connected, safe and walkable communities with generous pedestrian infrastructure (sidewalks, crosswalks, pedestrian lights, landscaping), and public transportation (bus stops and shelters) on NY State Route 303 and throughout Orangetown.
- Relocating commuter parking to existing developed areas with safe, sheltered bus stops to encourage the use of public transportation.
- Encouraging the installation of electric vehicle (EV) charging stations in public areas.
- Beginning with schools and businesses, advertising and enforcing efforts to limit the use of engine idling within the Town.
- 9 Limiting the use of gasoline powered leaf blowers.
- Increasing resident participation in waste management programs such as the Town's Food Scraps Recycling Program.

EV charging stations in a Sparkill parking lot © MUD Workshop



 Limit the use of fossil fuels as a source of energy supply and incentivize the use of green building technologies for new development projects and retrofits.

In 2012, Orangetown's commercial sector produced 25.5 percent of the Town's total GHG emissions, and the residential sector was responsible for 21.1 percent.<sup>69</sup> These commercial and residential sectors generated close to 50 percent of the Town's GHG in order to fulfill heating, cooling, lighting, and other needs. As such, the Town should consider prioritizing renewable sources for electricity and encouraging green building technologies that would decrease overall residential and commercial energy usage. The Town can consider updated energy supply and infrastructure as well as green building strategies, including:

- Continue meeting NYSERDA benchmarks in order to qualify for future phases of the Rockland Community Power CCA program.
- Adopting the CCA's 100 percent NY-sourced renewable electricity option as the default supply for Town residents and small business.
- Building on the success of the Town's Community Choice Aggregation Program and providing additional Town incentives for green energy such as fast-tracked approvals and tax incentives.
- Exploring efficient alternatives to the aging existing electrical grid infrastructure, which has limited ability to take advantage of modern technologies. These alternatives should promote micro-grid Community-Distributed Generation of electricity, such as Community Solar installations, as a means to both protect critical infrastructure and to lower the stress on the existing utility infrastructure. Leading upgrades and retrofits by updating all municipal buildings for high energy efficiency and switching 100 percent of energy supply to renewable sources. Incentivizing businesses and institutional buildings to follow.
- Requiring the use of green building technologies for heating and cooling for all new construction and redevelopment.
- Continuing to enforce the recently adopted NYStretch Code for development, and improving the energy efficiency of building systems, including heating, cooling, and lighting.
- Encouraging building performance code certifications such as Energy Star and/or LEED for new construction over a certain size.

<sup>69</sup> NY Climate Smart Communities Mid-Hudson Regional Greenhouse Gas Emissions Inventory, Table 26. "Rockland County; Total Emissions by Municipality and Sector".



Residential Housing, Blauvelt © AKRF

## - Rigorously enforce Town Code §43-4.2 to limit light pollution.

Orangetown's Town Code §43-4.2 sets out requirements for constraining exterior artificial lighting; however, its enforcement is limited and the requirements are widely ignored in both commercial and residential areas. The Town should consider promoting awareness around the negative effects of light pollution and educate the public about methods to tackle and reduce it. The Town should also consider stricter enforcement by limiting light pollution in building applications through the Architecture and Community Appearance Board of Review (ACABOR).





Land Use and Zoning

**Community Character and Historic Resources** 

**Transportation** 

**Economic Development and Downtown Revitalization** 

**Community Views on Land Use and Zoning** 

Sustainability

**Parks and Open Spaces** 



Blauvelt State Park © AKRF

This chapter summarizes the recommended actions by category and establishes a time-frame for implementation.

Strategy	Action Item	Time Frame	Responsible Agency
	Land Use and Zoning		
Update the zoning code and streamline provisions to improve readability, interpretation, and enforcement.	Consolidate CS and CC zones into a single district, using the higher density standards of CS zones to support economic growth, encourage vertical development, and reduce sprawl.	Short- Term	Town Board
	Rezone R-40 zones of three or fewer parcels to conform with the immediately adjacent zoning district to increase consistency.		
	Restructure the use and bulk tables to improve readability and understanding of the specific district regulations; consider adding new uses to existing zoning districts.		
	Delete the deed-like descriptions of the zoning district boundaries within the text of the regulations; the boundaries are already established on the zoning map.		

Strategy	Action Item	Time Frame	Responsible Agency	
Land Use and Zoning				
Update the zoning districts, as well as allowable land uses and definitions, to recognize and regulate uses not previously addressed.	New district: Mixed-Use (for transitional areas) New residential uses: "missing middle" housing	Short- Term	Town Board	
Update the Rt 303 Overlay District	Add other auto-oriented uses (e.g., drive-through facilities) to the list of prohibited uses in § 13.10.B (6), particularly on sites that abut residential areas; consider requiring a pedestrian/bicyclist-only entrance from the side streets.	Short- Term		
	Target identified commercial, strip style developments for retrofitting, mixed-use and "missing middle" housing, both of which facilitate walkable, environmentally sustainable development that serve as transitions between commercial areas and single-family neighborhoods. Consider requiring increased design, façade, and landscaping standards for new and redevelopments, as well as requiring developers to contribute to infrastructure upgrades.	Medium- Term  Town  Short- Term	Town Board	
	Update relevant sections to differentiate between the different types of warehouse uses, and to establish performance standards to address resident concerns. Encourage new uses in the Overlay District, including "clean and green" uses such as indoor greenhouses and vertical farms.			
	Increase flexibility of dimensional standards (minimum lot size, setbacks, FAR) to allow for favorable redevelopment without the need for variances; explore retrofitting options for constrained sites.			
Update nuisance regula- tions and increase enforcement.	Increase minimum buffer requirements for dense, hearty, and mixed vegetation. Reevaluate existing uses for compliance for nuisance regulations, particularly for noise and odors along the Rt. 303 corridor.	Medium- Term	Town Board	
Create environmental protection ordinances	Wetlands protection ordinance; Steep slopes and ridgeline protection ordinance.	Medium- Term	Town Board	
Update the zoning map and code to create tran- sitional districts between hamlet centers and suburban neighborhoods	Establish and encourage mixed-use districts, which integrate townhome and apartment housing types ("missing middle" housing) with retail spaces; these districts are a natural way to transition between residential and commercial, shopping areas. (See Future Land Use Map)	Short- Term	Town Board	

Strategy	Action Item	Time Frame	Responsible Agency	
Community Character and Historic Resources				
	Maintain existing local preservation tools.	Short- Term	Town Board	
Protect historic resources	Develop designation criteria for Historic Areas	Medium- Term	Historical Areas Board of Review	
	Develop design guidelines and performance standards	Long- Term	Historical Areas Board of Review	
	Publish online an inventory of locally-designated historic roads	Short- Term		
	Consider individual landmark protections	Medium- Term	Town Board	
	Survey Orangetown's historic buildings and structures	Short- Term		
	Consider joining the CLG Program	Long- Term		

Transportation				
	Work with developers to evaluate adding sidewalks and	Medium-	Planning Board	
Add context-sensitive	bicycle lanes	Term	OBZPAE	
sidewalks and protected on-street bicycle lanes	Develop a Town-wide bicycle map and add bicycle routes to the Town code	Medium- Term	Town Board	
where sufficient roadway space and funding is available				
	Evaluate roadways in downtown areas for implementing sidewalks and bicycle lanes	Medium- Term	Highway Department	

Strategy	Action Item	Time Frame	Responsible Agency
	Transportation		
	Pave the Raymond G. Esposito Trail	Medium- Term	
Expand active transporta- tion infrastructure network by connecting existing trails and converting	Pave the connection from Raymond G. Esposito Trail to Joseph B. Clarke Rail Trail	Long-	Parks and Recreation
abandoned rail lines into multiuse paths	Connect Joseph B. Clarke Rail Trail from Orangetown along abandoned rail lines south to New Jersey to provide a cohesive interstate multiuse path network	Term	
Apply Orangetown Complete Streets Policy to all roadway projects	Ensure all Town roadway projects comply with the Orangetown Complete Streets Policy	Short- Term	Highway Department
in addition to planning separate Complete Street projects	Evaluate the implementation of Complete Streets throughout the Town	Medium- Term	
Introduce traffic calming in residential areas	Traffic calming methods may include channelizing roadways, adding curb extensions, providing bicycle lanes and sidewalks, and adding traffic circles and roundabouts while limiting the use of speed bumps and speed humps	Long- Term	Highway Department
	Collaborate with Waze and other GPS navigation providers on limiting the use of cut-through routes in the Town	Medium Term	Town Board
	Conduct an inventory and evaluation of the existing traffic signals throughout the Town	Short- Term	
Collaborate with NYSDOT on upgrading existing traffic signals	With NYSDOT, implement traffic signal improvements including sensor upgrades	Long- Term	Highway Department
	Upgrade traffic signal at the Western Highway and Orangeburg Road intersection.	Medium- Term	
	Consider converting signalized intersections to stop- controlled intersections at locations where traffic volumes do not warrant a traffic signal, such as Clinton Avenue and South Broadway in South Nyack.	Medium/ Long- Term	Highway Department

Strategy	Action Item	Time Frame	Responsible Agency
	Transportation		
	Update Zoning Code to restrict driveway access along	Medium-	OBZPAE
Limit and consolidate commercial driveways along major roadways,	major roadways and require connections with adjacent driveways where feasible	Term	Town Board
including NY State Routes 303, 304, and 340	Work with developers to consolidate driveways for new	Short-	Planning Board
500, 504, and 546	developments	Term	OBZPAE
Davidson as housely march	Survey major roadways throughout the Town for vehicle		Town Board
Develop a truck route map to direct trucks to major roadways instead of	weight and height restrictions and surrounding land use to develop a Town-wide truck map avoiding truck restric-	Medium- Term	Highway Department
cutting through downtown areas, and restrict truck	tions, residential areas, and schools		Police Departmer
traffic on select local roadways except for local	Educate local businesses and freight companies on vehicle restrictions along Town roads	Short-	Highway Department
delivery		Term	Police Departmer
Enforce and improve	Survey vehicle weight and height limits throughout the Town and improve signage and enforcement based on survey results	Short- Term	Highway Department
signage for roadway and bridge weight limits			Police Departmer
Increase parking supply in areas with high parking	Add on-street parking where sufficient roadway space is available without reducing traffic lanes	Medium- Term	Highway
demand, including South Nyack and Pearl River	Convert large parking lots to bilevel garages in South Nyack, Nyack, and Pearl River	Long- Term	Department
Collaborate with public transportation providers, including Metro-North	Conduct a study with current public transportation providers to expand service	Medium- Term	
Railroad, Rockland Coaches, TOR, and Hudson Link to study and expand existing public transporta- tion service	Consider adding a Town shuttle service between the major transit hubs, such as Nyack, Pearl River, and Sparkill, and residential centers of the Town.	Long- Term	Town Board
Add and expand Park & Ride lots near major commuter stations	At locations with high parking demand such as the Pearl River Metro-North station and Nyack Hudson Link bus stops, provide additional parking	Long- Term	Highway Department

**Notes:** OBZPAE = Office of Building, Zoning, Planning, Administration & Enforcement

Strategy	Action Item	Time Frame	Responsible Agency	
Economic Development and Downtown Revitalization				
Explore grants and other funding opportunities for the Town and for small businesses, and educate business owners on	Explore funding opportunities including (i) New York Downtown Revitalization Initiative, and (ii) Empire State Economic Development Fund Program, and begin connecting with local businesses regarding these opportunities, including hosting educational events to educate potential applicants.	Short- Term	Town Board with support from Planning Board	
how to apply for those opportunities	Establish a public/private partnership program for the pursing of grant opportunities.			
Utilize placemaking strategies such as annual community events, pop-up holiday markets, farmers markets, public art, and live entertainment to draw residents and visitors to the community, patrons to local businesses, and to activate the public realm	Where commercial properties in hamlet downtowns have been vacant for extended periods of time, the Town should create an inventory of these properties, which should identify the zoning of the commercial properties, and potential uses, possibly through the use of an online tool.  Facilitate discussions between commercial property owners and potential renters to set up pop-up and seasonal/temporary businesses.  The Town should expand upon the events already established (e.g. farmers markets, Pearl River Day) and explore additional events.	Short- Term	Town Board with support from Supervisor's Office	
Encourage small businesses that add to the vitality of hamlet centers by providing cultural, recreational, and entertainment amenities desired by the community	To attract businesses to Orangetown's hamlet centers, the Town could undertake a marketing campaign to showcase the Town as a unique place to live, work, visit, and explore. The campaign should encourage business development equally across the Town.  The Town could consider some increases in density in downtown areas, and the development of transitoriented districts.	Medium- Term	Town Board	
	Establish procedure to meet with potential property buyers and developers at pre-application meetings, to advise on potential uses that meet zoning designations.			

Strategy	Action Item	Time Frame	Responsible Agency
Econor	nic Development and Downtown Revita	lization	
	The Town Board and Planning Board, with the assistance of the Town Attorney, should determine the feasibility of establishing an LDC in Orangetown.		Town Board and Planning Board
Establish a local develop- ment corporation (LDC)	In addition to considering creation of an LDC, the Town should connect with the Rockland Economic Development Corporation (REDC) or the Rockland County Industrial Development Agency (IDA) to facilitate redevelopment projects.	Medium- Term	
Create an Orangetown	Explore creation of a new Town department (or identify appropriate existing Town department) that would establish, implement, and monitor an EDC for		Town Board, Planning Board,
Economic Development Plan (EDC)	Orangetown. Conduct public outreach to establish economic development goals and strategies for the Town based on citizen and business-owner feedback.	Medium- Term	and Supervisor's Office
Attract new businesses of varying types and sizes to broaden business	Undertake improvements to downtown connectivity, linking amenities, housing, retail options, and natural resources and open space, to enhance the sense of place in the hamlet downtowns. Promote walking within the downtowns and strengthen intermodal connections.	Long- Term	Town Board, with assistance from Parks and Recreation and Highway Departments
offerings and protect the Town's tax base	Encourage uses that include clean industry and data centers, which could be facilitated by the implementation of a floating zone. This could be applied to the Townowned areas of the Rockland County Psych Center.		
Encourage infill develop- ment wherever possible, to maintain the 'feel' and 'character' of the hamlet downtowns	Develop inventory of existing vacant properties, organizing the properties by type (e.g., professional offices, commercial businesses, strip mall, factory/manufacturing, warehousing, dining). This inventory should also identify underutilized parcels. Using this information, the Town should develop specific strategic plans for hamlets more receptive to development.	Short- Term (inven- tory of proper- ties)	
	Establish design guidelines for contextual infill development which preserve street wall, respect character of surrounding properties, and adaptively reuse historic properties wherever possible (e.g., Chase Bank in Sparkill could be reused for commercial purposes).	Medium- Term (hamlet infill develop- ment strate- gies)	Planning Board

Strategy	Action Item	Time Frame	Responsible Agency			
Econom	Economic Development and Downtown Revitalization					
Activate the public realm in hamlet downtowns as a means to stimulate the local economies of the hamlets	Encourage and implement Complete Street policies. Create a more inviting, mixed-use, pedestrian-oriented public realm by adding additional bike lanes and side- walks (among other transportation-related suggestions made by residents).	Medium- Term / Long- Term	Town Board with support from the Planning Board and the Town Highway Department			
	Improve public spaces with plantings and other interactive elements, to stimulate placemaking.					
Undertake an evaluation of short- and long-term economic impacts of the Covid-19 Pandemic on businesses in Orangetown, to better inform strategies that could respond to new trends such as work-fromhome, and hybrid-work schedules	Conduct a survey, and speak with business owners, finding out from existing businesses the change in trends they have experienced over the past two years.	Short- Term	Town Board, with support from Town Finance Office			

Open Spaces and Recreation			
Establish a green infra- structure and structural retrofitting program to reduce phosphorous, nitrogen and pathogen loading.	Planning Board to examine green infrastructure systems and determine which are most suitable for the Town.	Short- Term	Planning Board
Improve water quality by addressing root causes of contamination, protecting wetlands and watersheds, and aiding in their environmental performance.	Planning Board (with assistance from Town Board and OBZPAE) to undertake a study which will determine key areas in the Town requiring water protections.	Medium- Term	Planning Board, with assistance from Town Board and OBZPAE

Strategy	Action Item	Time Frame	Responsible Agency	
Open Spaces and Recreation				
Mitigate the harmful impacts of flood events through development regulations and preventative measures.	Develop Town ordinances to protect steep slopes and ridgelines from erosion, develop and implement a native planting program, identify areas at high risk of flooding and develop mitigation plans, and make improvements to public infrastructure.	Medium- Term	Town Board and Planning Board	
Reduce carbon emissions and promote healthier air quality.	Create and enforce new regulations including those to:			
Limit the use of fossil fuels as a source of energy supply and incentivize the use of green building technologies for new development projects and retrofits.	(1) limit air pollution from light industrial areas; (2) limit truck traffic and deliveries during peak hours; (3) reroute truck traffic from residential areas and schools to major highways and roads; and (4) ban the use of gasoline-powered gardening equipment.	Medium- Term	Planning Board	
Enforce Orangetown Code Section 4.27 to limit light pollution.	Undertake public outreach to promote awareness of negative impacts of light pollution, and methods to reduce it. Consider revisions to Town Code to ensure stricter enforcement, and by limiting light pollution indicated on building applications through the ACABOR board.	Short- Term	Planning Board	
Establish preservation fund to acquire properties for open space and historic preservation.	Properties that might be acquired include: (1) Hackensack River blue corridor, including open space areas within the Rockland Psychiatric Center site; (2) Palisades Ridge green corridor where it intersects with Sparkill Creek watershed; (3) HNA property (former IBM Conference Center) in Palisades.	Medium- Term	Town Board	
Use cluster zoning and conservation easements to preserve large contiguous areas of open space, and protect environmentally sensitive areas.	Review and update Town Code to encourage and incentivize use of preservation-oriented development practices.	Medium- Term	Planning Board	
Consider and adopt urban forest and landscaping best practices.	Review and enhance the Town's Tree Ordinance. Update Town Code to minimize tree clearing. Re-establish the Shade Tree Planting Program overseen by the Town's Shade Tree Commission.	Short- Term	Planning Board, with input from Parks and Recreation Department.	

Strategy	Action Item	Time Frame	Responsible Agency		
	Open Spaces and Recreation				
Develop a viewshed protection ordinance.	Draft and implement Town Code provisions to include protection of shorelines and ridgelines to ensure existing line-of-sight corridors to the Hudson River through private property are maintained. Restrict ridge-line development to ensure natural views.	Medium- Term	Planning Board		
Repurpose defunct and	Encourage conversion of remaining inactive railroad lines Repurpose defunct and into rail trail facilities to expand the Town's network, and	Medium- Term (rail trails)	Town Board, Planning Board, Parks and		
obsolete infrastructure for recreational use.	connect with local municipalities. Implement plans for a waterfront park on lake Tappan within the Town-owned land at the Rockland Psychiatric Center.	Long- Term (water- front park)	Recreation Department, Highway Department		
Expand community programming and the ecological role of parks in habitat restoration.	Establish community farm beds, gardens, and nature centers, and establish volunteer corps for park restoration efforts.	Medium- Term	Parks and Recreation Department		
Educate young residents about environmental importance of parks and promote park stewardship.	Develop a program, to be held at and rotate through the Town's Parks, that is open to the public and free of charge. Promote new program on Town's website and through newsletters and other publications.	Medium- Term	Parks and Recreation Department, with assistance from Town Board		
Develop sustainable best practices for park main- tenance, use of materials, and water efficiency.	Conduct a study on water consumption in Town parks to manage usage. Explore revising Town ordinances to reduce the use of motorized vehicles and machinery in Town Parks.	Long- Term	Parks and Recreation Department		
Provide greater continuity between Orangetown's local parks and open spaces, the regional open space corridor, and waterfront areas.	Explore potential pedestrian and bike connections at (1) W Erie Street's Intersection with the Clarke Rail Trail, and (2) Orangeburg Road intersection with Veteran's Field, Independence Park, Greenbush Center, and Route 303 close to Clausland Mountain County Park.	Long- Term	Parks and Recreation Department, with assistance from Highway Department		

Strategy	Action Item	Time Frame	Responsible Agency			
Sustainability						
Establish a Climate Working Group to seek funding for a develop a Climate Action Plan.	Through public outreach, determine the primary climate goals supported by Town residents.	Short- Term	Town Board			
Expand on existing public awareness programs to include wider range of stakeholders and educational information.	Public education program would discuss: (1) impacts of stormwater discharge on waterbodies; (2) pollutants of concern and their sources; (3) actions to reduce pollutants in stormwater runoff; (4) hazards associated with illicit discharge and improper disposal of waste; and (5) ways to report illicit discharges and water quality issues to the Town.	Medium- Term	Town Board			
Map Stormwater Conveyance including drainage areas, outfalls, and discharge points for all of Orangetown's municipalities.	Undertake inventory of stormwater conveyance areas.	Short- Term	Office of Building, Zoning, Planning, Administration, and Enforcement			
Review and update local regulations to promote resilient construction practices, manage stormwater, and reduce flooding.	Planning Board to examine Town regulations and suggest updates, including: (1) guidelines for stormwater discharges from construction activities; (2) guidelines to address post-construction stormwater runoff from new development projects; and (3) requiring the use of bioretention, permeable paving, and vegetated swales for new development.	Medium- Term	Planning Board, with assistance from Office of Building, Zoning, Planning, Administration, and Enforcement (OBZPAE)			