

PRELIMINARY HUDSON HIGHLANDS FJORD TRAIL DRAFT MASTER PLAN

Cold Spring, NY to Beacon, NY

May 2015



Submitted to:



Town of Philipstown



Town of Fishkill



Village of Cold Spring



City of Beacon

Produced by:



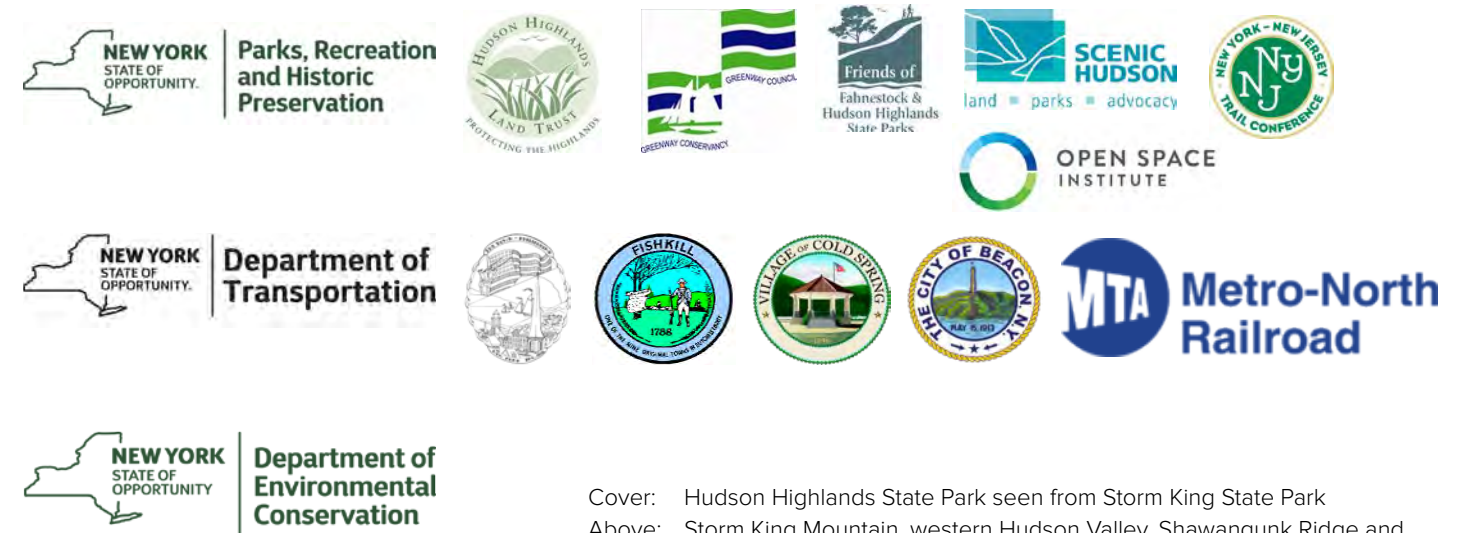


Project Partners

Scenic Hudson, Hudson Highlands Land Trust, Town of Philipstown, Town of Fishkill, Village of Cold Spring, City of Beacon, Friends of Fahnstock & Hudson Highlands State Parks, New York-New Jersey Trail Conference, Little Stony Point Citizens Association, NYS Office of Parks, Recreation and Historic Preservation, NYS Department of Transportation, NYS Department of Environmental Conservation, and Metro-North Railroad.

Project Funding

This Master Plan is funded by Hudson Highlands Land Trust, Open Space Institute, NYS Hudson River Valley Greenway, and the Hudson River Improvement Fund.



Cover: Hudson Highlands State Park seen from Storm King State Park
 Above: Storm King Mountain, western Hudson Valley, Shawangunk Ridge and Catskill Mountains seen from Breakneck Ridge



Steering Committee

Without the groundwork and support from members of the Steering Committee, the technical products in this project would not have been possible. Thanks to the following group that met regularly over the course of the plan to guide the process and content.

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Introduction

Introduction

Among the top outdoor destinations in New York is a place called the Hudson Highlands, located 50 miles north of Manhattan. The natural beauty of the area, as well as its rich history of human settlement and centuries-old legacy of artistic inspiration, has contributed to a grassroots consciousness among the local communities to value their environment, history and culture.

In recent years, visitation to the area's popular hiking, biking, ski trails and other historic and cultural destinations has increased tremendously, drawing visitors from communities throughout the Hudson Valley, the New York City metropolitan region, and beyond. This has positioned the Hudson Highlands at the forefront of outdoor recreation in the region, so much so that the area has been named by *Newsweek* magazine as among the top ten hiking destinations in the country. The Breakneck Ridge trail recently ranked as the top day hike destination in the country in an online poll conducted by Trails.com. This influx of people, along with positive press coverage, has boosted local economies and contributed to a cultural renaissance of local communities.

Unfortunately, the increase in visitation has also created serious issues with traffic safety, quality-of-life amenities, and maintenance in the Hudson Highlands State Park Preserve area between Cold Spring and Beacon. The Hudson Highlands are a series of ridges and valleys that are split by the Hudson River, which flows through a steep-sided, U-shaped fjord carved out by glaciers during the Ice Age. This steep topography leaves the travel corridor on the east side of the river highly constrained. This narrow sliver of land must accommodate State Route 9D and MetroNorth Railroad's Hudson Line. However, it is also in this narrow stretch where Breakneck Ridge draws thousands of visitors each week by car, train, bicycle and on foot, creating multi-modal traffic congestion that the corridor cannot currently accommodate safely.

The resulting local desire for safe walking paths in this corridor led community groups to get together and develop plans for a trail that enhances access to the river and restores pedestrian safety. The Philipstown Greenway Committee, along with the Little Stony Point Citizens Association and several individuals, formed an alliance to study the trail. The partnership expanded by 2013 to include the project partners and steering committee members (listed on pages ii-iii) that participated in the Master Plan process, which started in early 2014.

This Master Plan communicates the results of the analysis of route alternatives and establishes a preferred route for the trail envisioned to connect Cold Spring and Beacon. The following sections describe the project goals, study area, partners and local press that advanced the project from its grassroots origins to this Master Plan.



Storm King marks the northern entrance to the Hudson Highlands, where forested mountains slope steeply into very deep water. The scenery here is reminiscent of Norway's fjords. Fjords are defined as valleys eroded well below sea level by glaciers, and then filled by the sea after the glaciers melt. They are deepest upstream of their mouths, where the erosive power of the glacier was greatest. By this definition, the Hudson qualifies as a fjord: it is deepest in the Highlands - up to 175 feet deep at West Point.

– New York State Department of Environmental Conservation, www.dec.ny.gov

Purpose of the Study - Project Goals

The purpose of this study is to evaluate the feasibility of creating a trail linking the Cold Spring and Beacon train stations. This process began by identifying various route alternatives and further analyzing those that were deemed feasible. Alternatives were then evaluated based on project goals and public input, along with technical and cost feasibility.

The following parameters were used to assess the feasibility and desirability of various proposed route alternatives:

“The goal of the project is to transform a portion of the State Route 9D/Metro-North Hudson Line corridor in the heart of Hudson Highlands State Park between the Village of Cold Spring and City of Beacon from a high speed thoroughfare into a multi-use, user-friendly recreational, tourism-oriented connection that provides people with a stronger visual and physical connection with the Hudson River.”

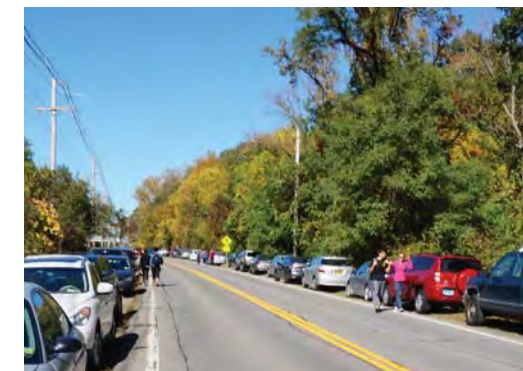
-www.HudsonFjordTrail.com



Route 9D just north of Breakneck Ridge



Main Street in Cold Spring



Hikers walking to and from Breakneck Ridge trailhead, 1/2 mile north of trailhead

GOALS

SAFETY

Lack of pedestrian, hiker and cyclist safety was the initial issue that led to the grassroots support for the trail. It is necessary to address traffic safety concerns along this portion of State Route 9D, where visitors currently park to access the trailheads, by calming traffic and implementing pedestrian safety measures.

RECREATION

Creation of this trail is an opportunity to provide a new recreational amenity for the region accessible to a broader population than just hikers. This project could transform the character of this stretch of Route 9D from that of a dangerous high-speed thoroughfare into a multi-modal recreational corridor that acknowledges the diverse needs of the motorists, pedestrians and cyclists using it. ADA access was sought where possible to open this unique area to people with disabilities, families with young children and the aging population. A trail located here would ultimately connect into a regional greenway and trail network, as well as the broader Hudson River Greenway, to create a multi-modal link between adjacent recreational opportunities and natural assets that people of all physical abilities could use.

HIGHLIGHT & RETAIN NATURAL BEAUTY, ECOLOGY AND ENVIRONMENT

Creating a continuous off-road, multi-use trail that provides visual and physical connection to the Hudson River and surrounding streams and woodlands is a major focus, given the strong public support for a such a trail. The design concepts developed are based on analysis of critical areas of environmental, cultural and archaeological significance, and have been developed to minimize environmental impacts during construction, to the extent possible, while maximizing exposure to natural surroundings and views.

ECONOMIC DEVELOPMENT

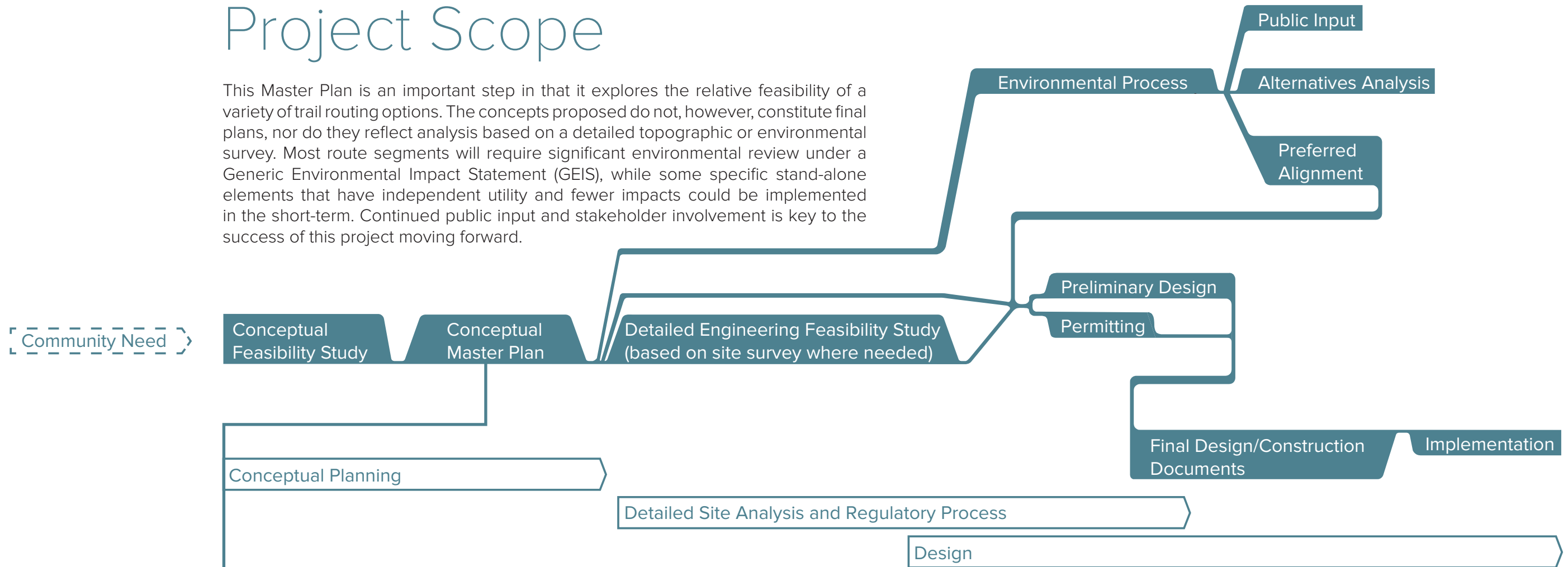
Encouraging non-motorized travel between Cold Spring and Beacon and their tourism-based destinations is a major goal that would be realized as a by-product of this trail. Once built, a continuous trail will highlight assets of these two communities as well as Hudson Highlands State Park Preserve. Therefore, unless there are specific economic development benefits for a given route segment, this goal is not analyzed in detail for each segment. Rather, it is regarded as a strong reason in support of implementing the entire trail route.

CONSTRUCTION FEASIBILITY

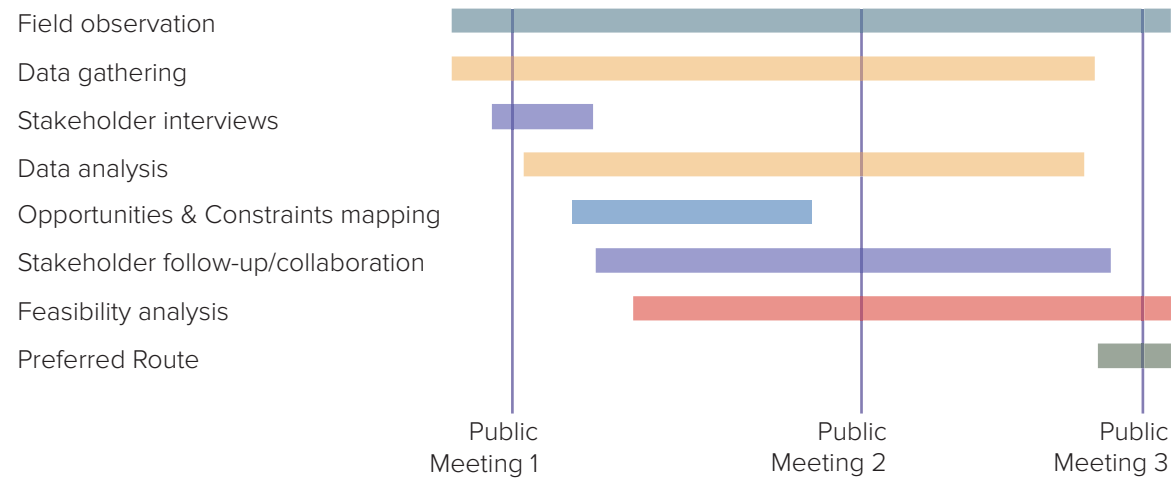
Evaluating the desirability of various route alternatives revealed a serious of practical issues at the forefront of the analysis. These include political jurisdiction, property ownership, environmental constraints, engineering feasibility, construction issues, project cost, and political and public support.

Project Scope

This Master Plan is an important step in that it explores the relative feasibility of a variety of trail routing options. The concepts proposed do not, however, constitute final plans, nor do they reflect analysis based on a detailed topographic or environmental survey. Most route segments will require significant environmental review under a Generic Environmental Impact Statement (GEIS), while some specific stand-alone elements that have independent utility and fewer impacts could be implemented in the short-term. Continued public input and stakeholder involvement is key to the success of this project moving forward.



Master Planning Process



As part of this Master Plan, detailed data collection and analysis took place, resulting in the Preferred Route. This analysis was conducted with respect to the goals listed on page 3.

Data Collection

Publicly available data, including relevant surveys and previously completed planning studies, were gathered. Requests for data that was known or believed to exist were sent to Dutchess and Putnam Counties. Subsequent data requests were sent directly to specific agencies and organizations for fulfillment. Gathered data was reviewed so that the project team could be as up to date and familiar as possible with existing local conditions, be they physical, economic, political or jurisdictional. Numerous site visits were conducted to verify existing physical conditions throughout the project area. This being a planning study and not a final design assignment, no formal topographic or utility surveys were conducted.

There were two additional data gathering outings of particular importance, for which thanks are in order.

During the first outing in April 2014, the non-profit organization *Lighthawk* flew over the area, allowing us to photograph the study area from above. The photos have proven to be invaluable for analysis of the potential trail alignments. Special thanks to *Lighthawk* for donating the pilot and aircraft for this purpose, and to the Hudson Highlands Land Trust for organizing the flight.

The second outing was a boat ride along the shoreline, arranged by the NYS DEC. With a goal of better understanding the river's edge condition in areas that a shoreline trail was still considered feasible, key personnel from NYS DEC joined the project team on one of NYS DEC's patrol boats. Once again, this perspective proved to be very important for understanding the existing condition of the shoreline. Special thanks to NYS DEC Region 3 Regional Director Martin Brand and his staff for organizing this outing.

Public Outreach and Stakeholder Interviews

Four public meetings were held: one at the beginning of the process to gather input from the public; the second at the mid-point to present the findings of the Opportunities and Constraints mapping; the third at the end to present the draft recommended preferred alignment, and the fourth on April 29, 2015 to present the final report.

The stakeholder groups within the project area, consisting of local, state and regional government agencies, non-profit organizations (such as: Scenic Hudson, Hudson Highlands Land Trust, Little Stony Point Citizens Association, Audobon Society) property owners and individuals, provided invaluable input throughout the master planning process. Many of these organizations had been working together on the early stages of planning this trail prior to the master plan, and were therefore able to provide background analysis and data.

The following were among the stakeholder interviews held: NYSDOT, OPRHP, Metro-North, NYCDEP, NYSDEC, Central Hudson Power and Light, and Melissa McGill (Artist: Constellations/Pollopol Island/Bannerman's Castle). In addition, two on-site walk-through meetings were held.

The first on-site meeting was held on August 6, 2014 and was attended by residents of Hartsook Lane, although it was open to all of the private property owners west of

Route 9D between the Breakneck Ridge Station and the Brickyards Parkland. Two properties from Hartsook Lane were represented and the discussion was focused on the feasibility of routing the trail along the edge of private parcels in general. No conclusions were reached, but based on the discussion and feedback from other adjacent property owners at the Public Meetings, the determination was made to avoid private property for the routing of the trail in this area. More detail about this determination can be found in the route segment analysis.

After the third public meeting, a site tour was held with representatives from local municipalities, as well as greenway and open space organizations. The purpose was for key stakeholders to better understand the recommendations presented at the third public meeting. This site tour was held on December 11, 2014, and stops were made to discuss the Metro-North Causeway and land south of the Fishkill Creek, Dutchess Junction Park, Breakneck Ridge to discuss the scope and design intent of the 2014 Consolidated Funding Application (CFA) funded project, and Little Stony Point to discuss the proposed trail and shoreline option from Little Stony Point to Breakneck Ridge.

In addition, after the third public meeting, an online public input survey was created to obtain detailed feedback about the preferred alignment. Based on the 464 survey responses, there is widespread support for the preferred alignment. For each route segment, there were minor requests for clarification which have been addressed in this final Master Plan document.

Opportunities and Constraints Mapping

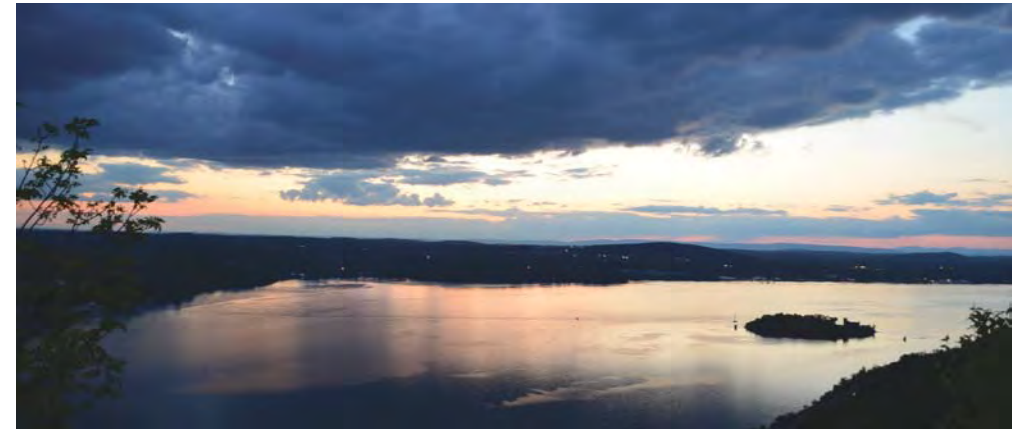
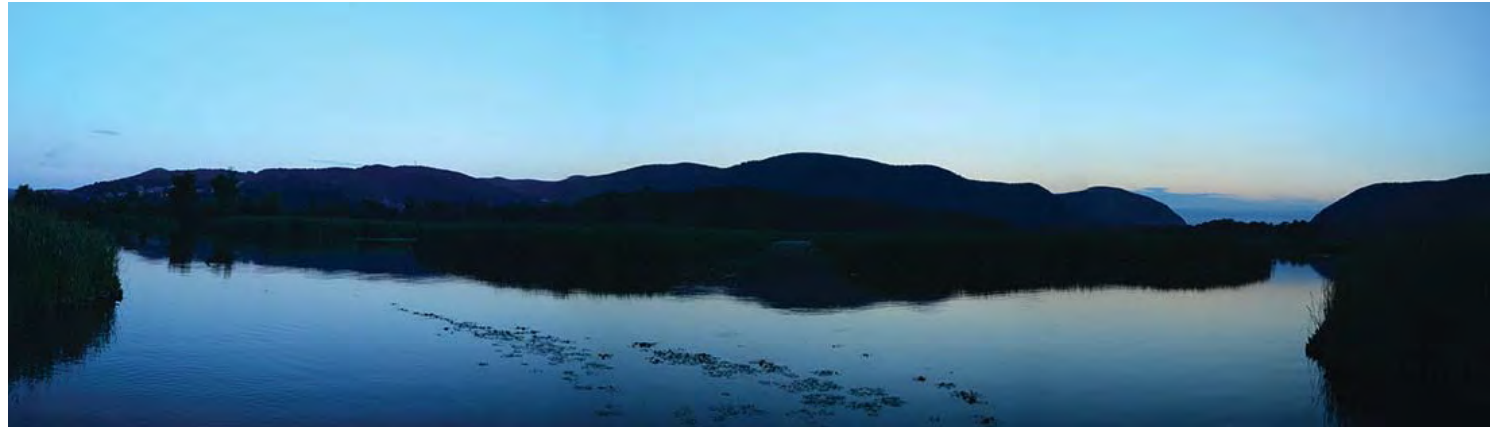
Based on analysis of data provided, combined with observations made during site visits, opportunities and constraints associated with different routing alternatives were mapped. Opportunities and/or constraints may have been physical, jurisdictional or environmental in nature. This mapping was continually supplemented and updated throughout the early part of the planning process, and as needed throughout the entire project.

Feasibility Analysis

The identification and assessment of opportunities and constraints led to the establishment of relative feasibility of implementation for various routing alternatives. Throughout this process, the design team was prioritizing and eliminating route segments based on technical feasibility. Jurisdictional constraints such as property ownership and sensitive transportation and utility infrastructure operations were also considered, as were impacts to natural and cultural resources. All of these factors were weighed and discussed at monthly Steering Committee meetings.

Selection of Preferred Route and Development of Design Concepts

Ultimately a vision for a preferred route was crafted. Realizing that in some locations the preferred route might require years to realize, a more near-term interim route alternative was also identified so that a continuous trail could be realized within an acceptable timeframe.



Existing Conditions within the project study area

First Row: Constitution Marsh, Cold Spring Harbor

Second Row: Little Stony Point trail, driftwood and Breakneck Ridge seen from Little Stony Point, view from Breakneck Ridge looking northwest

Third Row: Storm King Mountain from Metro North overlook, Pollepel Island and Bannerman's Castle from Metro North overlook, Dutchess Junction Park

Fourth Row: Main Street in Beacon

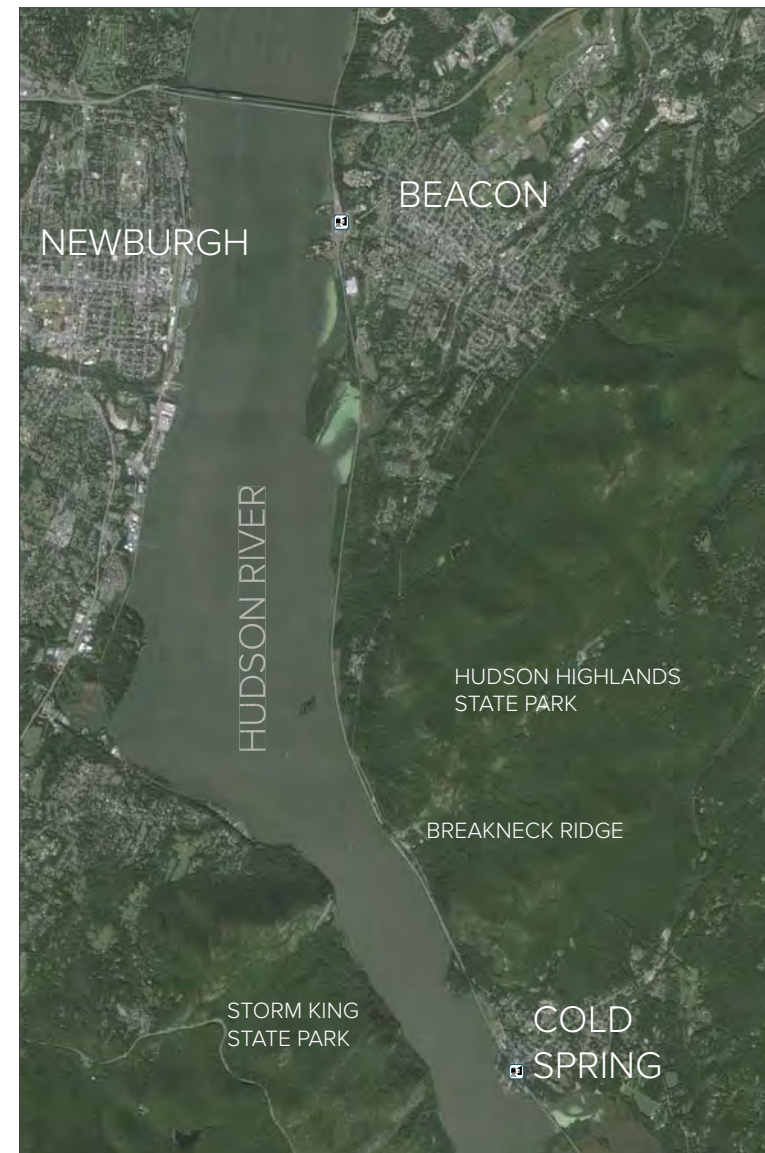
Project Area - Study Limits

The project limits for the study were the Cold Spring train station and Main Street to the south, the Beacon train station and Main Street to the north, Route 9D and State Park lands located immediately adjacent to the east, and the Hudson River to the west. The project area is generally narrow and constricted, with north-south alignment alternatives restricted to the following possibilities:

- In the State Park east of Route 9D
- On Route 9D within the Route 9D Right-of-Way (ROW)
- Between Route 9D and Metro-North Railroad tracks
- West of the Metro-North railroad tracks directly on the Hudson River shoreline

The project study area contains many important and popular recreational and cultural destinations. Making direct connections among these destinations was an important goal but is not always possible. For example, there are portions of both Main Street in Cold Spring and Main Street in Beacon through which the proposed alignment would not pass. The same is true for many local and regional destinations, including DIA: Beacon, the Beacon Institute, Dockside and Foundry Dock Parks in Cold Spring and the various trailheads along Route 9D, as well as many others.

Therefore, it is recommended that the *Signage and Wayfinding Project*, a parallel effort working to create a logo and to identify a system of signs for the trail, include these destinations to provide context and facilitate connections. For the hiking trailheads along Route 9D that do not directly connect to the Hudson Highlands Fjord Trail, signs indicating the most safe and direct route to each trailhead are recommended.



Project area context map



Conceptual trail alignment developed prior to Master Plan. Map by Scenic Hudson

Regional Context

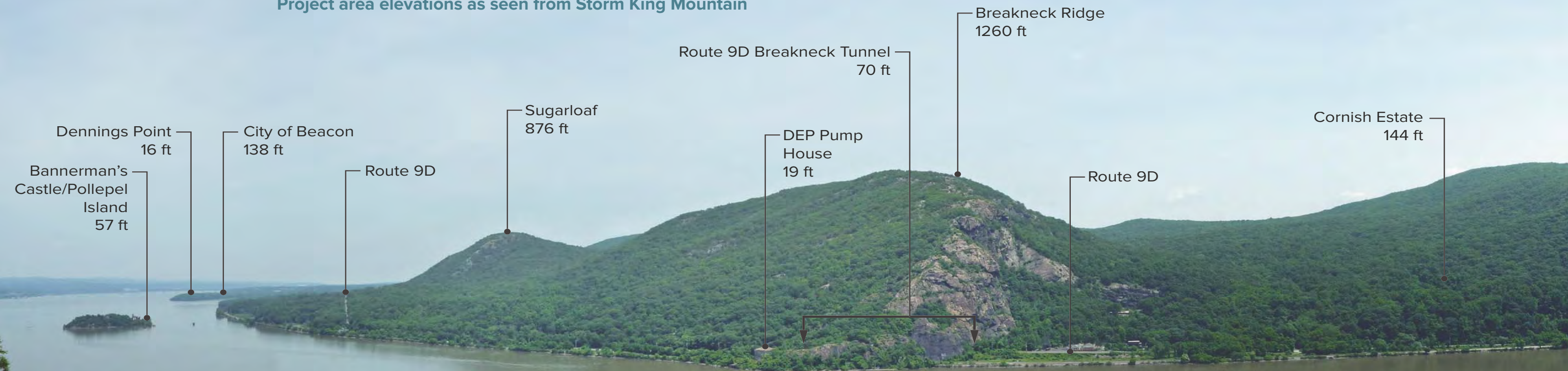
For centuries, the Hudson Highlands have been identified as a gateway to the Hudson Valley. Breakneck Ridge and Storm King Mountain dramatically stand sentinel across the River from each other. The Dutch called this river passage Wey-Gat, or Wind Gate, and Lenape Native American tribes lived on these shores and hunted in these mountains for thousands of years before the arrival of Europeans.

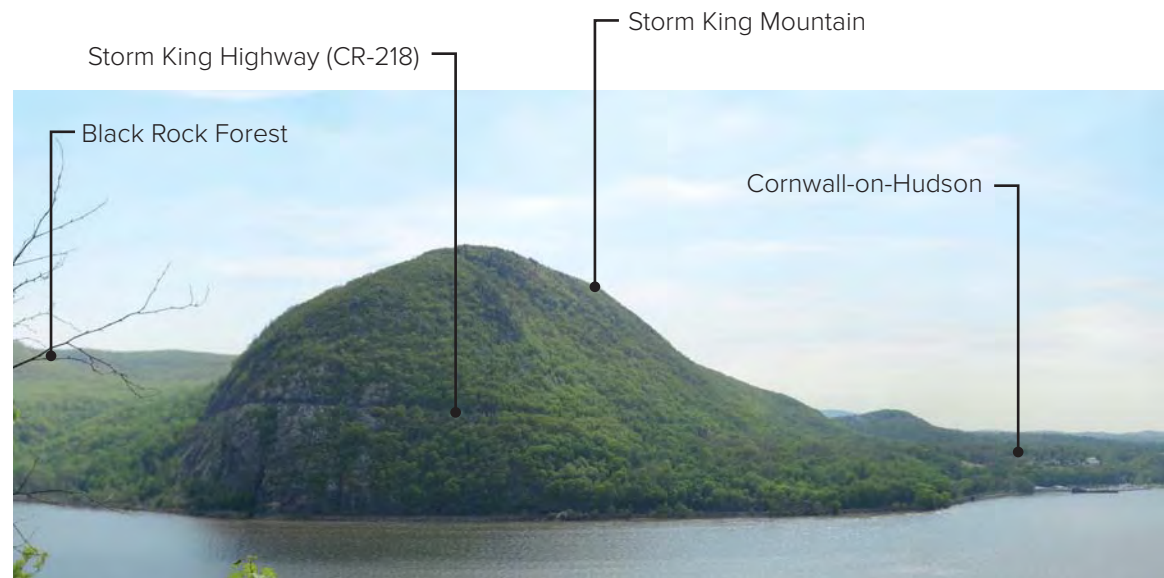
Storm King Mountain survived an attempt to build a massive power generation plant, and the quarrying at Breakneck Ridge was brought to an end before it could forever ruin the scenic quality of the Hudson Fjord. Today, the views are spectacular, bringing thousands of hikers to the Highlands by car, train and bicycle each day during peak season. The growing influx of hikers and outdoor enthusiasts not only demonstrates the beauty and unique character that attracts so many to this place, but also the need for a trail of transformational significance to bring safe access to an even greater population.

Linking two of the region's most important historic communities, Cold Spring and Beacon, Route 9D connects several important public resources, including Hudson Highlands State Park Preserve which includes Little Stony Point, Mt. Beacon and Beacon's trails along the Fishkill Creek and Hudson River. All of these offer outstanding views of the River, Bannerman's Castle on Pollepel Island, Storm King Mountain, and on a clear day, Shawangunk Ridge and the Catskill Mountains beyond to the west and north. This trail would add another important resource to the impressive collection of public open space facilities in the region.

The trail passes through four municipal jurisdictions: Town of Philipstown, Village of Cold Spring in Putnam County, Town of Fishkill, and City of Beacon in Dutchess County. In addition, there are three major agency landowners: Hudson Highlands State Park Preserve (OPRHP), the Route 9D corridor (NYSDOT), and the Hudson Line railroad corridor (Metro-North). All participated in the creation of this plan, and future coordination with these entities will be critical to successful implementation.

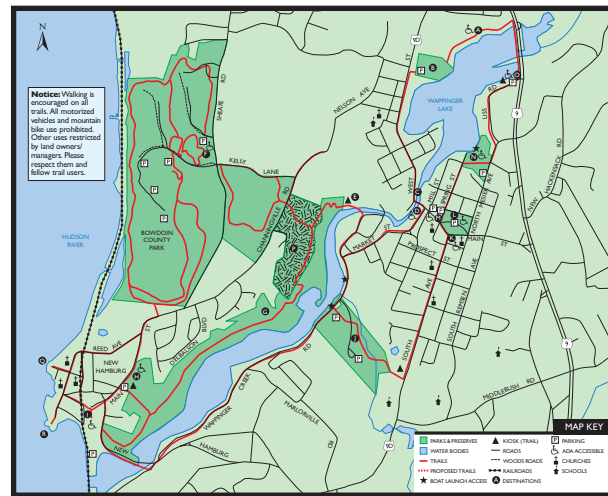
Project area elevations as seen from Storm King Mountain





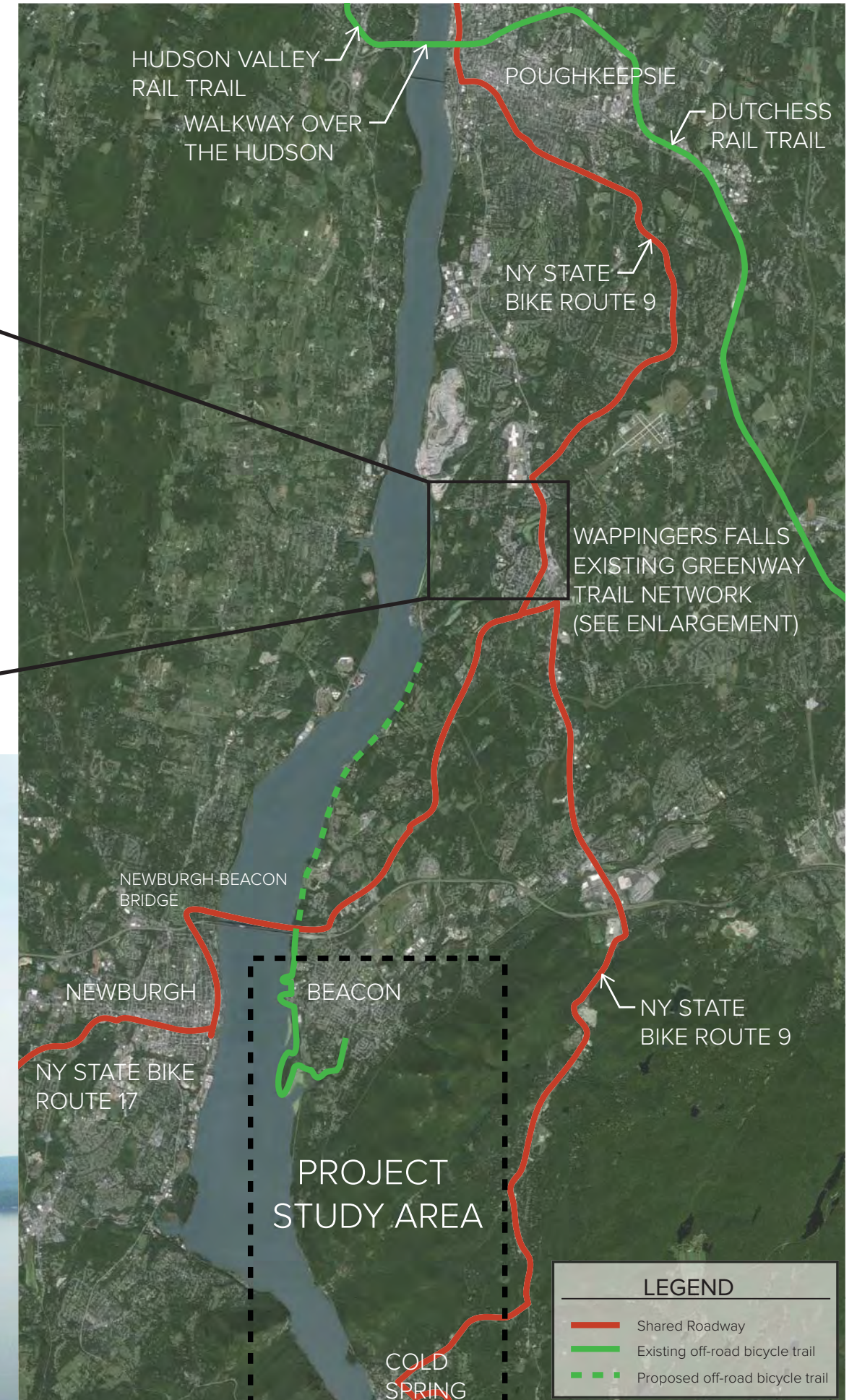
View looking west from Breakneck Ridge

Momentum to create public access to the Hudson River extends north of the existing trail network in Beacon along the eastern shore. A 50' wide easement for use as a public trail has been agreed to by almost all property owners between the Newburgh-Beacon Bridge and the existing greenway trail network in Wappingers Falls. Mostly held by entities in favor of public access to the river, there is only one parcel that lacks a commitment for a continuous unbroken trail easement.



Wappingers Greenway Trail. Map by Wappingers Greenway Trail Committee

Regional Trail Network



LEGEND

- Shared Roadway
- Existing off-road bicycle trail
- Proposed off-road bicycle trail

