2020 HUDSON RIVER ACCESS PLAN

POUGHKEEPSIE TO RENSSELAER

FINAL REPORT MARCH 2020





ACKNOWLEDGMENTS

Hundreds of individuals, elected officials, agencies and organizations have contributed to the development of this document through their words and actions. They include:

- People passionate about improved access to the Hudson River who attended public meetings, provided more than 1,000 comments and 5,000 votes on places where they use or wish to use the river, and have been directly involved in keeping access points open by taking part in cleanups along the shorelines and other activities.
- Elected federal, state and local officials from Poughkeepsie to Rensselaer who provided letters and resolutions contained in this report, participated in phone interviews, facilitated public meeting sites, and elevated the importance of saving and increasing access points through their support of local plans and reports issued in recent years.
- Individuals and organizations who collaborated on the Hudson River Access Forum that issued "Between the Railroad and the River—Public Access Issues and Opportunities along the Tidal Hudson." This 1989 publication remains extremely relevant.
- Finally, we wish to thank Matthew Atkinson, who authored "On the Wrong Side of the Railroad Tracks: Public Access to the Hudson River" (1996) for the Pace Environmental Law Review. This work provides a phenomenal review of the public trust doctrine and the legal principles governing the railroads' obligation to provide river access. Mr. Atkinson's advice during the development of this document proved invaluable.

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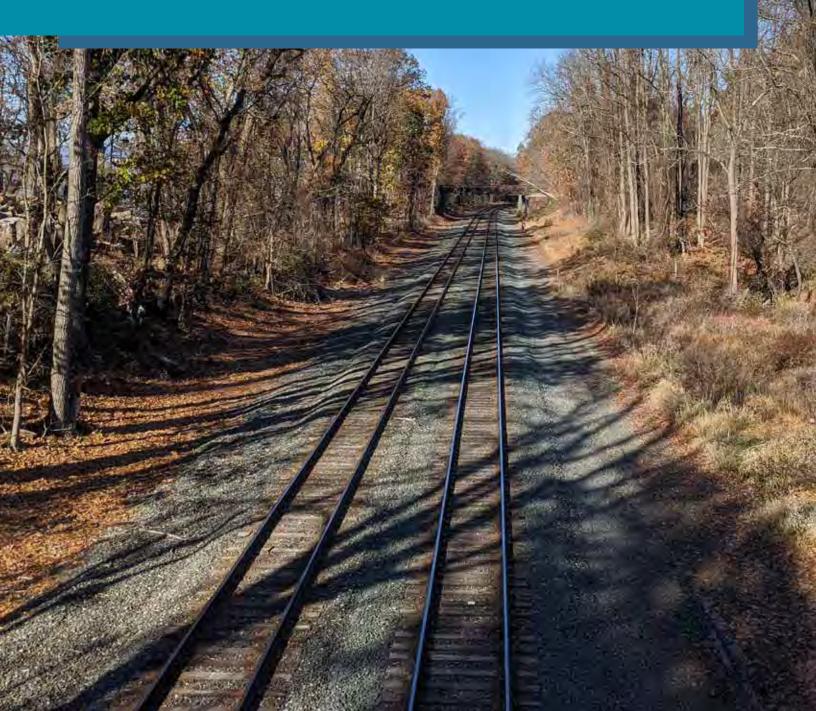
Appendix B - References & Past Studies

Appendix C - November, 2018 Scenic Hudson White Paper: "At-Grade Passenger Rail Pedestrian & Trail Crossings - Empire Corridor South."

Appendix D - April, 1996, Matthew Atkinson, Pace Environmental Law Review, "On the Wrong Side of the Railroad Tracks: Public Access to the Hudson River"



EXECUTIVE SUMMARY



HUDSON RIVER SHORELINE ACCESS PLAN: RENSSELAER TO POUGHKEEPSIE

EXECUTIVE SUMMARY

People have long treasured places along the Hudson River's east shore where they can fish, launch boats, birdwatch, hunt, make a living, take a walk or just sit and be inspired by the river's majesty. Since its inception, the railroad has created barriers that significantly reduce the public's ability to access the river and benefit from these activities.

It has been almost 175 years since railroad grants for formerly underwater lands were authorized by the New York State Legislature in 1846. Although the grants retained a right of access to the Hudson River for the public, there has been a steady reduction in access points. Today, it has reached a critical juncture.

The last comprehensive evaluation of access along the Hudson River's rail corridor occurred more than 30 years ago, with the release in 1989 of the document "Between the Railroad and the River." It is time for a 21st-century assessment.

What makes the need for this assessment—particularly between Poughkeepsie and Rensselaer on Amtrak's Empire Corridor South—especially imperative now is Amtrak's proposal to construct new fencing and gates in locations where they currently do not exist. Officials and residents in riverfront communities, along with Scenic Hudson, share deep concerns that these barriers will eliminate public access and/or block views at many points where people have connected with the river for generations.

It's no secret that people love the Hudson River—it is the reason why riverfront communities developed in the first place. As time went by, we abused the river and it became a dumping ground. But over the past half century, many people have worked hard to restore the Hudson, and it has paid off. Now communities embrace the river as their "front door" and economic future. It is important to connect people to the river in the communities where they live. This has always been one of Scenic Hudson's highest priorities. Protecting and improving public access are also goals of New York State's Coastal Management Program. However, it is no secret that the railroad has made this challenging to accomplish:

- Dozens of grade crossings providing riverfront access have been closed.
- Many historic steel truss bridges spanning the tracks have not been maintained and have fallen into disrepair. Some have been dismantled; others are in danger of being lost.
- For the past 25 years, railroad impasse fencing in Castleton-on-Hudson has blocked residents from a state-funded Village park.
- In Germantown, hundreds of years of fishing tradition is being threatened.
- In Tivoli, residents face the closure of a legal grade crossing and the construction of an expensive and unnecessary bridge to access their small waterfront park.
- In Hyde Park, the historic truss bridge to Crum Elbow Point at the Franklin D. Roosevelt National Historic Site needs immediate rehabilitation before it is lost. In addition, access just north at Coal Dock Lane and Dock Street is severely limited.
- The railroad's barriers pose increasing difficulties to many communities seeking to revitalize their waterfronts by taking advantage of the Hudson's recreational, scenic and economic potential.

NEW YORK STATE LAW

The State of New York holds in trust for the public its inalienable right to access and use the shore. Though the state controls the right of access to the Hudson River, in 1846, the NYS Legislature authorized railroad grants of formerly underwater lands, resulting in continuing loss of public access. Still, there remain an array of legal doctrines designed to protect and enhance public access to the river. Law requires the railroad to protect river access. Public Trust Doctrine, eminent domain law and public lands law restrict the railroad's title and use of its property. Public Trust Doctrine limits the state power to obstruct public access to trust lands.

A 1992 NY Public Lands Law (75(7)(a)) explicitly preserves the public's interest in the use of stateowned underwater lands for navigation and waterrelated recreation. These legal doctrines support the public's right to access the public shores of the Hudson River.

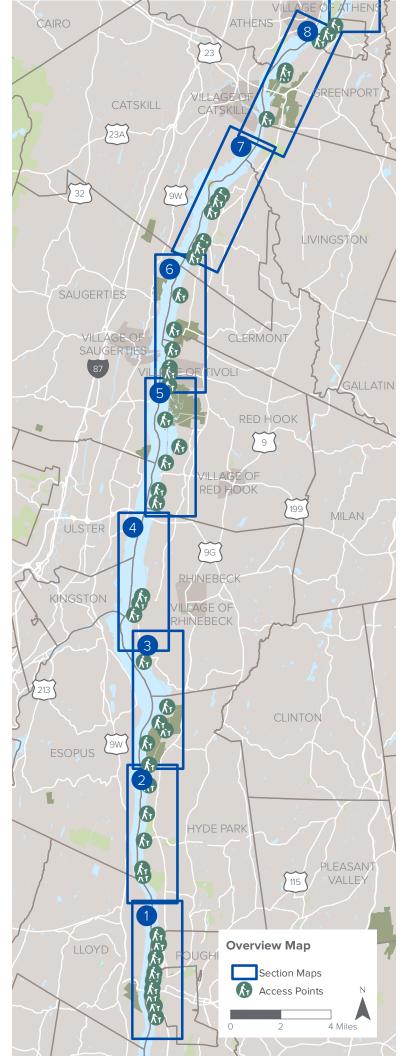
ACCESS POINTS

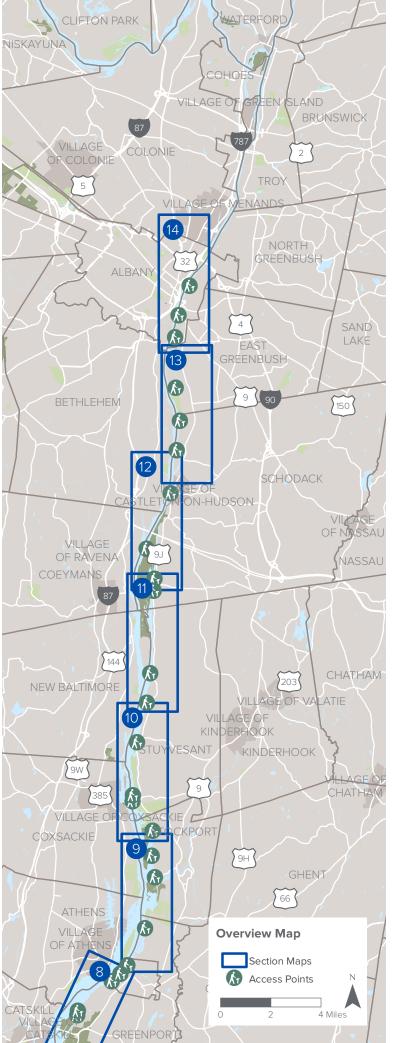
For approximately 70 nautical miles along the east shore of the Hudson River, existing public parks, preserves, recreational lands and other access points were inventoried using existing GIS data and aerial images. A physical field review of the shoreline was also conducted on November 12 and 13, 2019. These points range from large state parks to specific Hudson River Water Trail access sites to generational fishing destinations. Access points that appeared or are known to provide access (public or private) for fishing, boating or other activities were also inventoried. Each of these sites is described in this report and included on the inventory maps.

A total of 64 sites are described in further detail in Chapters 4 and 5, with an individual site sheet for most locations. Descriptions include size, ownership, access across the railroad, existing uses and future recommendations.

Access points: 64 Greenway Water Trail sites: 24 Boat launches: 13 Marinas: 8 Railroad at-grade crossings: 18 Bridges over railroad: 32

Tunnels under railroad: 6 Railroad at river's edge: 43 miles Steep slopes: 28 miles Proposed railroad gates: 9 Proposed railroad fencing: 0.43 miles





PURPOSE AND CONTEXT OF THE HUDSON RIVER ACCESS PLAN

This Hudson River Shoreline Access Plan (HRAP) has been developed to provide a course of action that can be supported and implemented by all key stakeholders between Poughkeepsie and Rensselaer. In addition to completing an updated analysis and documentation of places where people currently enjoy water-related recreation, the plan identifies gaps in public access, recommends places for safe new shoreline access and suggests ways to improve safety at existing locations.

Scenic Hudson hired Peter Melewski, LLC and his planning team (Alta Planning + Design, and George Stafford) to assist in creating the HRAP. In this document, the following items are addressed:

- An overview of current challenges and opportunities.
- Methods of data collection and mapping and supporting data.
- An extensive public and stakeholder outreach program, including an interactive website that garnered more than 1,000 comments and 5,000 votes on access locations.
- A proposed five-year Access Action
 Plan including action items and funding suggestions for the 2020 calendar year.
- Corridor maps showing 64 important access locations that require crossing the Empire Corridor South rail corridor and Site Sheets for each of these locations.

The HRAP touches upon many diverse issues regarding access, as well as a need for THIS plan.

While outside the scope of this report, rising water levels in the Hudson River due to climate change will impact access as well as railroad performance and reliability. Protecting train service and public access must be coordinated, not done in a vacuum by any one party. We are all in this together.

The authors of the HRAP and stakeholders fully support safe and reliable passenger rail service in the Hudson Valley. It is a critical component of New York's infrastructure. Given today's at-grade crossing technology for higher speed trains, there is no reason why we cannot protect and increase access to the Hudson River while providing safe and reliable rail service—a "win-win" situation for everyone.

In his 1996 report, *On the Wrong Side of the Railroad Tracks: Public Access to the Hudson River,* Matthew Atkinson wrote that "the public should require the state to provide a coherent Hudson River access plan, in view of present and anticipated use requirements." In addition, he

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Riverfront access and railroad crossing at Stuyvesant Landing

Angler Fishing is very popular along the Hudson River, especially around the City of Hudson. Source: Andisate / Amtrak

"as the health of the river is restored...the policy that ignored public access should change, and with this change in policy, the development of law designed to protect access is desired." stated: "as the health of the river is restored...the policy that ignored public access should change, and with this change in policy, the development of law designed to protect access is desired."

The Great Law of the Iroquois, whose people thrived on access to the Hudson River, advised that "every decision will impact the next seven (7) generations." It has been almost six generations (30 years/generation) since the 1846 Railroad Law. We have seen the impact, both good and bad. It is time to look at the next seven generations, and protect remaining access to the Hudson River by implementing the HRAP.

PUBLIC INVOLVEMENT

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Public Meeting at Germantown on January 4, 2020

PUBLIC OUTREACH

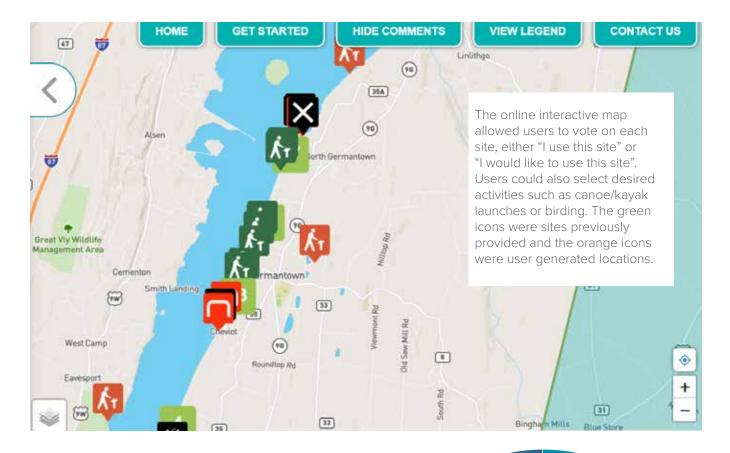
On January 3 and 4, 2020, Scenic Hudson hosted six meetings, in the Village of Castleton-On- Hudson (Rensselaer County) and the towns of Germantown and Rhinebeck (Columbia and Dutchess counties, respectively). This included both a stakeholder and public meeting in each community. The meetings were used to gain public knowledge on use of existing access points and needs for additional access. **Approximately 300 people attended the meetings.** This number is impressive given that it was on the weekend at the end of New Year's holiday week.

A project website, **www.hudsonriveraccess.org**, was launched in mid-December 2019 to inform the public about the purpose and need of the study and announce the dates and locations of the meetings. Communities hosting the meetings put the information on their websites, and organizations also alerted their members. An online interactive map went live on January 3, 2020, and remained active until February 2, 2020. This map allowed the public to provide comments on existing sites and identify informal and new access locations. **The interactive map received more than 1,000 comments, suggestions and recommendations and generated over 5,000 "votes" on individual sites.** Comments received by February 2, 2020, were incorporated in this report's findings and recommendations.

Scenic Hudson conducted a robust public outreach campaign to notify community members of the public meetings. Outreach tools included a media release and email blasts to its current mailing list for the area before the public meetings and during the month of January to remind residents of the online interactive map. Local elected officials also distributed their own notifications and reminders.



Public Meeting at Castleton-on-Hudson on January 3, 2020



Public meeting attendance: Approx 300 people

Total site votes: 5,644 votes

"I use this site": 3,364 votes

"I would like to use this site": 2,280 votes

Site or general comments: Over 1,000 comments





Public Meeting at Rhinebeck on January 4, 2020

STAKEHOLDER OUTREACH

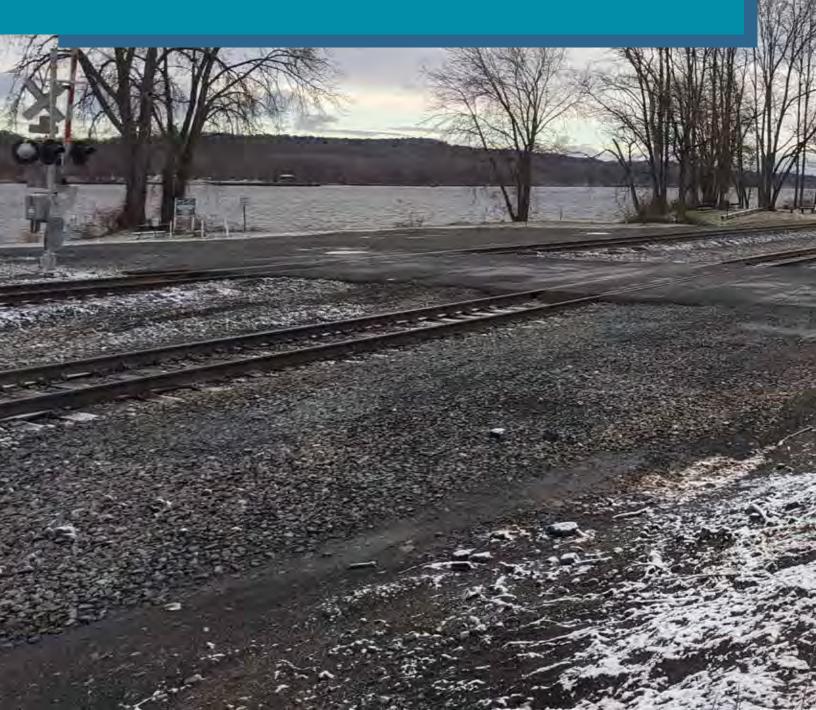
Interviews (primarily by phone) were conducted with a number of key stakeholders responsible for multiple access sites in the corridor: National Park Service; NYS Office of Parks, Recreation and Historic Preservation; Hudson River Valley Greenway; NYS Department of Environmental Conservation's Hudson River Estuary Program; Town of Germantown Waterfront Advisory Committee; and Scenic Hudson, Inc.

Comments and suggestions are reflected in the text of this document and in the Site Sheets. In addition, the above agencies and NYS Department of Transportation, NYS Department of State, and Amtrak were extended invitations to attend the public meetings.

The consultant team reviewed the historical archives at the NYS Office of General Services in Albany, NY.

Prior to each public meeting, a stakeholder meeting was held with local officials and community members involved in advisory committees or other advocacy groups. These meetings provided an opportunity for the team to hold more detailed conversations with stakeholders to gain insight into the local obstacles and opportunities.

OPPORTUNITIES AND CHALLENGES



OPPORTUNITIES AND CHALLENGES

Opportunities and challenges identified by the HRAP initiative are addressed in detail in Chapters 3 through 5. They are generalized as follows:

OPPORTUNITIES

- The public, regional and local governments, and not-for-profit groups are galvanized by the Amtrak proposal and seek to work collaboratively and quickly for increased safe access and related revitalization of their communities.
- The HRAP incorporates, in part, over 1, 000 comments garnered from the substantial 2020 public outreach by Scenic Hudson.
- A number of programs and funding mechanisms are available to assist with implementing the HRAP.
- Recommended actions needed to maintain or provide access are detailed for each of the 64 inventoried access sites.
- The HRAP provides an opportunity for all stakeholders to rally around a common plan to increase public safety and river access and advance recommendations through their local plans.

CHALLENGES

- Loss of existing access.
- Not enough public access to the river.
- Balancing safe access with passenger train service.
- Community revitalization stymied by limited or no access to river.
- Most recent Amtrak fencing/gate proposal failed to fix access problems, failed to revitalize community by constraining economic activities drawn by proximity to the River, and lacked guidance from a widely supported plan.
- Historic steel truss railroad bridges are in a state of disrepair and if not restored, will be lost.
- Responsible governments and other organizations are coping with multiple capital and maintenance priorities with limited funding.
- Amtrak leases operations and maintenance from CSX, and NYSDOT has responsibility for rail crossing design approval. Amtrak's proposal for locked gates and impasse fencing is not consistent with the New York State Coastal Management Program because it would eliminate public access in several locations.

FINDINGS AND SUPPORTING DATA

PUBLIC DOCTRINE

The public has an inalienable right to access and use the river and shoreline.

The Public Trust Doctrine is a legal principle that holds (in part) that "the right to use the river is unlawfully circumscribed if reasonable access is denied." Further, public access is to be increased, not diminished.

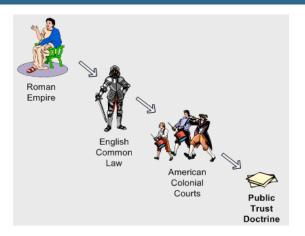
- Given that the public must cross the tracks for the entire corridor between Poughkeepsie and Rensselaer, the Amtrak proposal diminishes the inalienable rights of the public to access the river.
- While the New York State Railroad Laws
 of 1846 and 1850 are clear regarding the
 importance of maintaining public and private
 access crossings, it has been the apparent
 intent of the Railroad (Conrail, CSX and
 Amtrak) in the 20th century to eliminate
 these crossings wherever, and whenever
 possible. Individual crossings have been
 eliminated one by one over the years due
 to a lack of an enforceable comprehensive
 public access plan for the 70- mile corridor.
- An excellent reference document on the history of the Public Trust Doctrine, and violations in NYS as it pertains to the railroads on the east shore of the Hudson River, is *On the Wrong Side of the Railroad Tracks: Public Access to the Hudson River*

CONVEYANCE OF PUBLIC TRUST LAND

NYS has not conveyed all public rights to the Hudson River, nor can the railroad unilaterally extinguish those public rights of access.

In 1846, the NYS Legislature provided the authority for the railroad to take possession of public property for railroad use. It DID NOT, however, authorize the railroad to take title of underwater lands.

Subsequent legislative and judicial action authorized NYS to convey submerged lands to the railroad. However, the Legislature DID NOT authorize cutting off the rights of access to upland owners, nor authorize conveyance of all of its public interests in affected public trust lands.



(1996) by Matthew Atkinson. The report was prompted by the initiation of a high-speedrail study by then-Governor Mario Cuomo. In his 2020 State of the State address, Governor Andrew Cuomo announced that a panel of experts will reassess the 2014 High Speed Rail Corridor Program Tier 1 Draft Environmental Impact Statement (DEIS) in an effort to accelerate implementation and reduce costs.

The Public Trust Doctrine Here is your country. Clarish these natural wonders, aderial the natural resources, cherish the history and remances, as a sacred hertage, for your wildren and your diddrens wildren. Do not let sulfirst men or greedy interests shim your country of its hearty, its walkes on its remance. Theodore Reserved

NYS COASTAL MANAGEMENT PROGRAM

Among the decision-making criteria of the NYS Coastal Management Program is to "Protect, maintain and increase the levels and types of access to public water-related recreation and facilities so that these resources and facilities may be fully utilized by all the public in accordance with reasonably anticipated public recreation needs."

Unfortunately, in its past actions closing crossings and installing locked gates, Amtrak has not advanced this policy. Rather, it continues to propose eliminating at-grade crossings and removing historic overhead bridges in the stated interest of safety and liability. This report is intended to shift the paradigm and ensure that the public's interest in gaining more access is achieved. If no new direction is taken, more river access will be lost as Amtrak closures and fencing barriers continue to be proposed and passively endorsed by the New York State Department of Transportation, which functions as the funding intermediary between the Federal Highway Administration (FRA) and Amtrak.

Instead of increasing public access, 42% of formal at-grade pedestrian crossings have been eliminated between 1917 and 1995 according to Matthew Atkinson. Access to 100% of the eastern shoreline in the study area requires crossing the rail lines. Access along river shorelines was the cheapest and easiest routes for the railroads. New York State was compensated \$500 for the entire right-of-way along the river's eastern edge by the railroads in the mid-1800s.

AROUND THE WORLD, HIGHER/ HIGH SPEED RAIL AND AT-GRADE CROSSINGS CO-EXIST.

The railroad along the eastern shore was constructed in the 1850s; however, there is no technological reason why mid-19th century technology (i.e., gates and fencing) must be employed today. In its January 12, 2018, Federal Consistency Assessment Form, Amtrak acknowledges that the project will reduce public access to the Hudson River. Due to public outcry, Amtrak withdrew its application to the New York State Department of State, and stated that it would resubmit it.

Scenic Hudson's 2018 White Paper: At-Grade Passenger Rail Pedestrian & Trail Crossings

Empire Corridor South clearly demonstrates that safe, reliable train service and safe local access to the river can co-exist. As noted in the report, higher/high speed passenger train service successfully exists in other locations in the United States, such as in Illinois, where the Illinois DOT has a state-of-the-art statewide program for Amtrak service, and in Southern California along the Pacific Ocean.

The 284-mile Illinois High Speed Rail Program:

The 90-110mph corridor clearly demonstrates that a system running Amtrak trains, and containing dozens of at-grade crossings can be operated and maintained safely using today's technology. Another example from the 2018 White Paper is California's Metrolink, in particular a 2.5-mile-long segment providing access across passenger rail to a popular ocean side trail and beach (55mph due to track curvature).

Simple advances in technology that should be incorporated on the Empire Corridor South between Poughkeepsie and Rensselaer include, but are not limited to:

- Increasing the timing of the warning system from 15 seconds (measured at Castleton-On-Hudson) to 80 seconds, to be compatible with other higher speed systems across the country.
- Install quad gates (4 arms instead of 2) for at-grade crossings involving vehicles. This prevents people from trying to drive around 2 arms.
- Pedestrian only crossings should be established as recommended in this plan and in collaboration with Amtrak, NYSDOT, local officials, and stakeholders. Install smaller scale crossing gate arms, lights, bells, signage, emergency egress gates (for someone already on the tracks); focused fencing so people use the official crossing, and an audible warning system. In fact, a localized warning system would negate the need for the trains to continuously blow their whistle (Quiet Zone) in small towns and villages.
- For more information, please see the 2018 Scenic Hudson White Paper on at-grade crossing concepts.



Access to Hudson River via pedestrian bridge

EXISTING WAYS TO ACCESS THE SHORE REMAIN, AND ARE ACHIEVED BY MEANS OF VEHICLES, ON FOOT OR BY WATER.

During the six meetings with elected officials and the public, people described dozens of ways they enjoy river access. Further, the response online to the interactive map provided additional detail. Among the observations:

- Despite the risk of being arrested for trespassing by Amtrak police, people continue to cross the tracks at locations that have been used by generations for fishing, canoeing, kayaking and simple enjoyment of the river.
- Again, despite the risk of being arrested for trespassing, many volunteer groups clean up the shoreline on Earth Day and other occasions. They also pick up considerable debris left by Amtrak/CSX maintenance staff and contractors.
- An observation made by the consultant team is the apparent lack of consistent treatments for guiding people across the Empire Corridor South rails for access to the river. Some locations have robust signage and signalization, while other active locations have virtually no proactive warning signs or devices. Fencing seems arbitrary and capricious. The team observed that new yellow warning signs noting that "trains may exceed 80 mph" have been installed at a number of locations.





MORE PUBLIC ACCESS IS NEEDED. THE DEMAND IS THERE.

It is clear from the 2018 public outcry to the proposed Amtrak gate and fencing plan that there is a need for more access. This has been reinforced by the feedback from the six meetings, phone interviews and interactive map responses in January 2020.

The Town of Germantown Waterfront Advisory Committee has proposed creating a 2.5-mile (+/-) rail trail between the river and the rail lines, formalizing a means of access used by the public for generations.

It is clear that the pendulum has swung. After 175 years of accommodation to the railroads, the public is pushing back to save the remaining access points (pursuant to the Public Trust Doctrine and the NYS Coastal Management Program) before these access points enjoyed by generations of residents, anglers, and sportsmen are eliminated.

IMPROVED AND SAFER TRACK CROSSINGS ARE NEEDED IN THESE LOCATIONS.

The HRAP highly recommends that all locations be assessed by Amtrak and NYSDOT for signage, warning bells, proactive gates and localized, properly-scaled fencing that directs people to safe crossings at existing and future locations.

This is a win-win situation: Safer track crossings will benefit those accessing the river and Amtrak and its passengers. It would be a positive public relations move for Amtrak to work with the communities (FRA Report to Congress, October 2018), many of whose residents use Amtrak for commuting to New York City.



AMTRAK'S PROPOSAL DECREASES ACCESS, IS NOT SAFER AND DOES NOT SUPPORT COMMUNITY REVITALIZATION.

During the public meetings, a common question asked was, "Why is Amtrak proposing locked gates and fencing to prevent access? People will just walk to the end of the fence to access places used for years. Amtrak is making the situation less safe."

This document recommends that Amtrak and NYSDOT utilize the HRAP and work with the public, local governments and relevant organizations to provide accessible crossings that are safe for both the railroad and people crossing



the tracks. This should reduce liability concerns and result in a win-win for all involved.

The consultant team observed many small businesses near access points to the river. These shops will see an increase in business once crossings are considered "official" instead of "renegade". The positive economic and social impacts to riverfront communities such as Castleton-On-Hudson are clear. It is a basic tenet of communities' revitalization initiatives to facilitate—not stop—economic activities that benefit from proximity to the river.



LEADERS MUST COMMIT TO COLLABORATIVE EFFORT, EVALUATION, AND MONITORING.

To ensure implementation of the HRAP, public and private sector leaders from business, not-for-profits, and local, state and federal governments must collaborate, commit to long-term responsibilities, and regularly evaluate progress and adjust responsibilities and actions.

The Hudson River Access Forum's Between the Railroad and the River (1989) is an excellent example of collaboration between the public, private and not-for-profit sectors. It includes a number of important recommendations—some implemented, some not. Unfortunately, it lacked clear responsibilities to implement recommendations, track progress and make necessary adjustments.



UNIQUE ACCESS SITES REQUIRE INNOVATIVE SOLUTIONS. CASTLETON-ON-HUDSON CASE STUDY:

Castleton-on-Hudson faces a unique and significant obstacle to revitalization of its business district - its riverfront municipal park lies unused behind a locked gate as required by NYS Department of Transportation (NYSDOT) and the railroad.

At the public meetings held at the Castleton firehouse on January 3, 2020, the standing-roomonly crowd was clearly frustrated by the lack of access, and totally confused about how one state agency provided funds for a municipal park while another state agency has denied them access to the same park for the past quarter century. The park is a 0.75-acre parcel, originally the foundation for one of the many icehouses on the river. This foundation provides a broad peninsula that offers tremendous river views extending for miles both to the north and south. The park is located a few feet from struggling Village businesses on Route 9J. The NYSDOT closed access temporarily in the 1990s as an evaluation was made of the impact of higher/high-speed rail. Since trains and the track are capable of handling train speeds between 90-110 mph, the NYSDOT has kept access closed for the past 25 years without providing a solution for the public to access and enjoy the municipal park.

Frustrated local residents have consequently sought their own path to the Hudson River, which is less safe. The consultant team observed that the southbound Amtrak train arrived at the crossing ONLY 15 seconds after the warning bell sounded. Further, the southbound train is hidden from view until the last few seconds due to a track curve.

At the January 3, 2020, public meeting, attendees were adamant that residents should be able to walk down the hill, where most people live, and enjoy the river. An attendee noted the need for "equity and education." Given the proximity of the river, people should be able to access it without the financial burden of car transportation and/or paying a fee to enter a state park several miles away. The public expressed how village children would benefit greatly from access to the park, both after school and for in-class educational activities such as the NYSDEC's annual program, A Day in the Life of the Hudson River, where students conduct field observations and seine for fish.

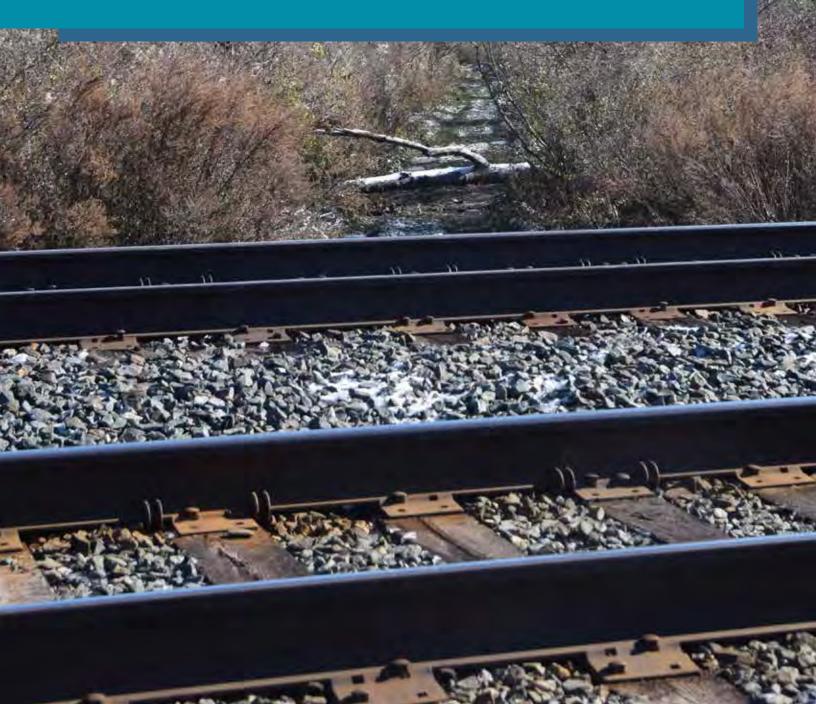
While frustrated residents are denied access to a village municipal park that could provide public water-related recreation, the Castleton Boat Club enjoys a private railroad crossing just 900 feet to the south in spite of the need to tow boats across the tracks with the same 15-second advance warning mentioned above. By allowing the private crossing to the boat club and closing the public crossing to the municipal waterfront park, Village residents', adjacent business', and the general public's ability to enjoy the Hudson River has been placed at a serious disadvantage.

Where a crossing provides direct access to public trust lands and waters, public use of the crossing is a reasonable expectation of the parties. (p. 820, On the Wrong Side of the Railroad Tracks: Public Access to the Hudson River, Matthew Atkinson). "The public has a right to access public waters equal to that of upland owners." (p.821).

THE HRAP COMPREHENSIVE PLAN RECOMMENDS THE FOLLOWING AT CASTLETON-ON-HUDSON:

- Remove the existing gate and fence and replace it with state-of-the-art gate/fence equipment that will allow safe pedestrian and village maintenance vehicle access.
- Increase the advance warning bells/gate sequence from 15 to 80 seconds.
- Install or upgrade existing signage alerting people to higher speed trains.
- Make it clear to park users to cross at designated locations.
- Consider using bells at the gates (quiet zones) to eliminate trains using horns 24 hours a day that can be heard on both sides of the Hudson River.
- Couple crossing infrastructure at the park and marina, so their gates and signals are in sync and work as one.
- Use this location as a pilot project (showcase) for other crossing locations.
- Provide local schools environmental education opportunities in the park.

BRECOMMENDATIONS



RECOMMENDATIONS

Number	Time Frame	Recommendation
1	Now - 2020	Amtrak should refrain from submitting to the NYS Department of State its application for a Coastal Consistency Determination for its Fence Upgrade Program 2019-2023 until it collaborates with municipalities and others
2	1 Year - 2021	Preserve and maintain existing public access at crossings and ensure that future actions to reduce risk do not diminish public access.
3	1 Year - 2021	Bundled Bridge Program to Save Historic (Orphan) Bridges.
4	1 Year - 2021	Amend NYS Coastal Law, Executive Law or Underwater Lands Law for the Hudson River to require preparation and implementation of a comprehensive public access plan.
5	1 Year - 2021	Amend Federal Public Law 110-432, Title II Highway-Rail Grade Crossing and Pedestrian Safety and Trespasser Prevention, Section 201, to clarify Amtrak's responsibilities. Submit to governor's expert panel.
6	1 Year - 2021	Amend 2014 DEIS for High Speed Rail issued by NYSDOT and FRA to include proposed mitigation projects (i.e. Castleton-on-Hudson pilot), and all HRAP recommendations. Submit to Governor Cuomo's expert panel.
7	1 Year - 2021	Use existing and seek additional State and federal funds to implement the recommendations of the Hudson River Access Plan (HRAP).
8	1 Year - 2021	Implement and/or expand education programs to improve safety along the railroad program
9	5 Years - 2025	Implement safe crossings plan.
10	5 Years - 2025	Create pilot programs to open closed crossings and demonstrate today's technology.
11	5 Years - 2025	Assist communities to capitalize on river access as an economic driver for community revitalization.

RECOMMENDATION 1 (NOW-2020)

Amtrak should refrain from submitting to the NYS Department of State its application for a Coastal Consistency Determination for its Fence Upgrade Program 2019-2023 until it collaborates with municipalities and others.

Prior to developing plans for impasse fencing and locked gates Amtrak should work collaboratively with the appropriate municipal, county, and state officials and relevant stakeholders to identify ways to reduce risk along the Empire Corridor South without further reductions in public river access. Given that the Empire Corridor South's alignment along the shoreline has already limited the public's access to the foreshore, all parties should work together to increase existing levels of public access. This is consistent with State and local Coastal access policies. Further, much of the railroad has been constructed on previously underwater State-owned lands and these lands are subject to the Public Trust Doctrine, which protects peoples' rights to access the shoreline.

RECOMMENDATION 2 (1 YEAR-2021)

Preserve and maintain existing public access at crossings and ensure that future actions to reduce risk do not diminish public access.

Between Spuyten Duyvil and East Greenbush, 42% of railroad crossings that impact access sites were lost between 1917 and 1995. This loss of shoreline access has driven the public to cross the tracks in other, less safe locations for waterrelated recreation, particularly fishing. In concert with Recommendation #1 above, remaining formal or informal sites should remain accessible to the public. If, in rare cases when an emergency may arise or construction or maintenance requires limits on public access, the railroad should notify public officials in advance of such temporary closures.

RECOMMENDATION 3 (1 YEAR-2021)

Bundled Bridge Program to save historic (orphan) bridges. There is an immediate need to launch a program in 2020 to save the historic pony truss bridges (e.g., Crum Elbow Bridge at the Home of Franklin D. Roosevelt National Historic Site and other historic bridges, such as the concrete bridge at Staatsburgh State Historic Site). Some of these bridges have already been targeted for removal, which is unacceptable.

 The New York State Department of Transportation (NYSDOT) has had a successful bundled bridge program for many years now. It "bundles" bridges of similar type in a region to gain "economies of scale" by rehabilitating them in a single contract. Bridges are restored faster and at a lower cost per bridge. Not only the bridges but the funding sources (federal, state, local, private sector) can be bundled. The New York State Bridge Authority (NYSBA) is another option for letting the contract, both for its knowledge about bridges and its contracting mechanisms, which are simpler and can move faster than NYSDOT.

RECOMMENDED APPROACH

Create a Task Force whose members may include: Scenic Hudson, NYSDOT, NYSBA, NYS Association of General Contractors (NYSAGC), Amtrak, CSX, FHWA, National Park Service, NYSOPRHP, and other historic bridge owners. The Task Force provides a "project champion" to spearhead the effort.

The Task Force is given ninety (90) days to prepare a viable action plan to preserve the affected historic bridges, and retain / restore the crossings. The action plan would urge:

> "Some of these historic bridges have already been targeted for removal, which is unacceptable."

- 2020 Inspections and Scope of Work for each bridge
- Emergency shoring, if and where needed to preserve bridge and protect the railroad until permanent repairs can be done.
- Innovative solutions can expedite bridge restoration. For example, using cranes to lift each steel bridge away from the tracks (ABC – Accelerated Bridge Construction), to restore, and then lift and place back on the abutments, can minimize impacts to rail operation while maximizing safety and quality.
- Conduct a cursory review to determine the ownership and identify maintenance issues for each bridge. This will take more than 90 days to resolve, as many bridges are "orphans," but the cursory review may result in a preferred way forward. Ownership and maintenance responsibilities have not changed much since the mid-19th century, and many responsibilities are subject to debate between Amtrak, CSX, and state and local officials. It is time to update these responsibilities.
- Once an approach is agreed upon, determine the total estimated cost of the project.
- Options for the development of bridge bid documents include: Design-Bid-Build or Design-Build. The responsible agency would need to be identified—essentially, who could prepare and issue documents in a timely manner. Another option is to have a private enterprise or not-for-profit lead the bidding effort (i.e., the approach used for Walkway over the Hudson).

• The goal should be to have bid documents advertised within one year of this report's release (spring, 2021).

It would be a tragedy to lose any of these historic bridges due to continued neglect and controversy over who is responsible for their maintenance and repair.

RECOMMENDATION 4 (1 YEAR-2021)

Amend NYS Coastal Law, Executive Law, or Underwater Lands Law for the Hudson River to require preparation and implementation of a comprehensive public access plan.

Use the HRAP as the foundation for the comprehensive access plan, which would include:

- Identify existing locations where the public accesses and uses the waterfront and needed new public access locations.
- Recommend best acceptable technology to improve public safety at each of the existing and new locations.
- With public access as a critical foundation, recommend actions to increase appropriate revitalization of historic riverfront communities.
- Oversee the restoration of historic and unique bridges.

RECOMMENDATION 5 (1 YEAR-2021)

Amend Federal Public Law 110-432, Title II Highway-Rail Grade Crossing and Pedestrian Safety and Trespasser Prevention, Section 201, to clarify Amtrak's responsibilities. The Secretary of Transportation should be directed to provide guidance to railroads on strategies and methods to prevent pedestrian accidents, incidents, injuries, and fatalities at or near passenger stations and railroad crossings using safety strategies and methods to maintain and wherever possible to increase the level of existing public access across railroad tracks to public waterways.

RECOMMENDATION 6 (1 YEAR-2021)

Amend 2014 DEIS for High Speed Rail issued by NYSDOT and FRA to include proposed mitigation projects (i.e. Castleton-on-Hudson pilot), and all HRAP recommendations. Submit to Governor Cuomo's expert panel. Governor Andrew Cuomo's 13th proposal of his 2020 State of the State agenda is to convene outside experts to re-examine and rethink strategies to bring highspeed rail to New York. The governor expects the panel of engineers to think "outside the box" pursuant to his office's press release. We hope that this panel will recognize that higher speed rail on the Empire Corridor South and at-grade access can succeed in upstate New York just as it does in Illinois via that state's high-speed rail program.

The NYS High Speed Rail Program has been prominently located on the home page of

the NYSDOT website for the past 10 years. A voluminous Draft Environmental Impact Statement (DEIS) was issued early in 2014 by NYSDOT and the Federal Rail Administration. Many of the recommendations in the DEIS have been completed or advanced since 2014, including several on the Empire Corridor South (essentially Albany to New York City).

It should be noted that under all of the various speed scenarios (90, 110, 125 mph, etc.), the rail corridor between Poughkeepsie and Albany remains essentially unchanged from today's current operations. Physical constraints (river, slopes, national historic sites, historic homes, etc.) make it virtually impossible to increase the speed. Consequently, the DEIS focuses on improved reliability (getting from point A to point B on time).

This action item urges the panel of experts to embrace and include the public access points identified in this report, as well as provide appropriate state-of-the-art pedestrian and vehicle crossing devices at these sites, in its recommendations and budget estimates.

"Physical constraints (river, slopes, national historic parks, historic homes, etc.) make it virtually impossible to increase the speed. Consequently, the DEIS focuses on improved reliability (getting from point A to point B on time)"

		1		M	liles at Max	imum Auth	norized Spe	eed	Average
From	То	Operated By	Miles	<60	60-70	75-85	90-95	100- 110	Operating Speed mph
-	1			(miles)	(miles)	(miles)	(miles)	(miles)	mpri
Penn Station	Spuyten Duyvil (CP 12)	Amtrak	10.8	2.9	7.9	-		÷	41
Spuyten Duyvil (CP 12)	Croton- Harmon (CP 34)	Metro- North	21.7	4.6	6.5	10.6	(a)	Ţ.	52
Croton- Harmon (CP 34)	Poughkeepsie (CP 75)	Metro- North	42.4	6.1	9.4	11.5	15.4	a.	65
Poughkeepsie (CP 75)	Albany- Rensselaer	Amtrak	66.3	0.3	- 4 -1	8.3	41	16.7	66
Albany- Rensselaer	Schenectady	Amtrak	17.7	5.1	=	1.7	3.6	7.3	48
Schenectady	Hoffmans	Amtrak	9.7	0.5	1	10201	1.3	6.9	53
Hoffmans	Utica	CSXT	68	2.4	39.8	25.8			63
Utica	Syracuse	CSXT	53.9	1.8	6	46.1			49
Syracuse	Rochester	CSXT	79.6	14.3	18.9	46.4			63
Rochester	Buffalo Depew	CSXT	60.7	1.2		59.5	1.000	1.119-01-01	69
Buffalo Depew	Buffalo Exchange St	CSXT	7.9	2.4	1.8	3.7	1	-	34
Buffalo Exchange St	Niagara Falls	CSXT	24.6	7.1	17.5	4	200	a -	39
	Total Miles		463.3	48.7	108.8	213.6	61.3	30.9	
Per	centage of Total			11%	23%	46%	13%	7%	2

Empire Corridor Maximum Authorized Speed by Segment and Speed Range

Source: NYSDOT/FRA High Speed Rail DEIS

Weekday Train Frequencies on Empire Corridor

Service		ridor South ny-Rensselaer	Empire Co	orridor West		
Service	Outbound (to Albany)	Inbound (to New York City)	West of Albany-Rensselaer			
Contraction of the second	To Albany	From Albany	From Albany	To Albany		
Passenger Rail (Amtrak)	13	13	4 (6 from Schenectady)	4 (6 to Schenectady)		
	To Poughkeepsie	From Poughkeepsie				
	28	29	N/A			
Commuter (Metro-North)	Terminating at Croton-Harmon	Originating at Croton-Harmon				
	43	38	1			
	Total Outbound 78	Total Inbound 76				
Freight (CSXT)	4		50 - 60 (west o	f Hoffmans)		

Source: Amtrak Empire Service: New York, Albany, and Buffalo, NRPC Form W8, 4/18/2011; Metro-North Railroad Hudson Line Timetable, effective October 14 through January 3, 2013.



Corridor Map of DEIS Build Alternatives

Source: NYSDOT/FRA High Speed Rail DEIS

	Residential	Commercial Services	Industrial	Transportation/ Utilities	Industrial and Commercial	Mixed Urban Land	Agricultural	Rangeland	Forest Land	Surface Water	Wetlands	Barren Land	Totals
New York	19	91	14	135	0	453	0	0	0	4	0	0	716
Bronx	33	14	0	3	0	43	0	0	0	97	0	0	190
Westchester	369	118	344	180	0	231	0	0	225	821	0	0	2,288
Putnam	6	5	0	0	0	0	0	0	216	417	34	0	678
Dutchess	125	32	137	60	42	101	125	0	1,252	1,290	107	44	3,315
Columbia	346	55	0	0	0	0	417	0	1,067	104	31	125	2,145
Rensselaer	196	39	33	29	0	0	276	0	346	51	0	0	970
Albany	52	72	219	83	33	24	2	0	327	12	0	31	855
Schenectady	333	46	80	86	0	39	147	0	311	11	0	12	1,065
Schoharie	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Montgomery	288	225	0	179	0	112	962	174	852	44	0	97	2,933
Herkimer	63	316	0	33	0	26	584	143	530	126	0	17	1,838
Oneida	135	149	46	204	0	0	832	221	171	0	323	0	2,081
Madison	32	42	0	0	0	11	263	110	504	0	21	26	1,009
Onondaga	63	156	333	299	0	292	343	0	569	18	164	38	2,275
Cayuga	0	0	0	23	0	0	641	0	106	9	54	0	833
Wayne	9	54	36	0	0	4	1,638	0	658	0	284	16	2,699
Monroe	226	342	257	145	20	159	833	0	142	0	92	33	2,249
Genesee	113	18	29	5	0	34	1,818	0	78	15	65	1	2,176
Erie	424	317	550	136	0	90	630	0	146	0	28	22	2,343
Niagara	126	70	29	117	95	92	479	0	0	0	0	41	1,049
Totals	2,958	2,161	2,107	1,717	190	1,711	9,990	648	7,500	3,019	1,203	503	33,707

Land Use/Land Cover in the 90/110 Study Area (in acres)

Source: The United States Geological Survey (USGS) National Mapping Program.

C	Acres of 100-Year Floodplains ³					
County	90/110 Study Area	125 Study Area				
New York ¹	ND	ND				
Bronx ¹	ND	ND				
Westchester	703	703				
Putnam ¹	ND	ND				
Dutchess	1,766	1,766				
Columbia	1,244	1,244				
Rensselaer	751	752				
Albany	90	43				
Schenectady ¹	ND	ND				
Schoarie ¹	0	ND				
Montgomery ²	ND (8)	ND				
Herkimer	904	45				
Oneida	780	81				
Madison	226	110				
Onondaga	712	547				
Cayuga	316	45				
Wayne ¹	ND	ND				
Monroe	237	296				
Genesee	234	247				
Erie	15	20				
Niagara	22	22				
TOTAL	8,008	5,921				

Mapped FEMA 100-Year Floodplains in the Study Area

Notes

1 No GIS data available from FEMA

2 No GIS data available from FEMA. Acreages are a result of adjacent County overlap.

3 Numbers have been rounded to the nearest acre.

ND=No Data

The 90/110 Study Area is used for analysis of Alternatives 90A, 90B, and 110 and consists of the existing 464-mile long Empire Corridor alignment. The 125 Study Area is used for analysis of Alternative 125 and consists of portions of the existing Empire Corridor and new alignment and is 450 miles long. The study area width is defined as being within 300 feet of the corridor centerline. Source: Federal Emergency Management Agency. Flood Insurance Rate Maps, 2010.

	Acres of Wetlands															
County	NWI		NWI and NYSDEC Freshwater Wetlands		NWI and NYSDEC Tidal Wetlands		NWI, NYSDEC Freshwater and Tidal Wetlands		NYSDEC Freshwater		NYSDEC Tidal Wetlands		NYSDEC Tidal and Freshwater Wetlands		Total	
	90/ 110 Study Area	125 Study Area	90/ 110 Study Area	125 Study Area	90/ 110 Study Area	125 Study Area	90/ 110 Study Area	125 Study Area	90/ 110 Study Area	125 Study Area	90/ 110 Study Area	125 Study Area	90/ 110 Study Area	125 Study Area	90/ 110 Study Area	125 Stud Area
New York	106	106	0	0	0	0	0	0	0	0	0	0	0	0	106	106
Bronx	133	133	0	0	0	0	0	0	0	0	0	0	0	0	133	133
Westchester	328	328	0	0	347	347	10	10	0	0	84	84	1	1	770	770
Putnam	0	0	0	0	197	197	39	39	0	0	46	46	3	3	285	285
Dutchess	0	0	0	0	1,018	1,018	185	185	0	0	108	108	6	6	1,317	1,31
Columbia	0	0	0	0	449	449	427	427	0	0	62	62	28	28	966	966
Rensselaer	0	0	0	0	66	63	76	76	0	0	13	13	10	10	165	162
Albany	70	3	27	0	6	6	0	0	26	0	1	0	0	0	130	9
Schenectady	59	44	19	0	0	0	0	0	25	0	0	0	0	0	103	44
Schoharie ¹	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Montgomery ¹	34	36	9	0	0	0	0	0	297	108	0	0	0	0	340	144
Herkimer ¹	3	20	0	0	0	0	0	0	47	9	0	0	0	0	50	29
Oneida1	0	0	0	0	0	0	0	0	593	190	0	0	0	0	593	190
Madison ¹	0	0	0	0	0	0	0	0	88	11	0	0	0	0	88	11
Onondaga	135	80	183	98	0	0	0	0	237	283	0	0	0	0	555	461
Cayuga	68	45	111	85	0	0	0	0	42	27	0	0	0	0	221	157
Wayne	287	107	474	190	0	0	0	0	140	38	0	0	0	0	901	335
Monroe	134	126	131	106	0	0	0	0	43	21	0	0	0	0	308	253
Genesee	240	226	117	182	0	0	0	0	52	12	0	0	0	0	409	420
Erie	144	151	25	83	0	0	0	0	10	13	0	0	0	0	179	247
Niagara	64	64	0	0	0	0	0	0	0	0	0	0	0	0	64	64
Total	1,805	1,469	1,096	744	2,083	2,080	737	737	1,600	712	314	313	48	48	7,683	6,10

Summary of Federal and State Wetlands in the Study Area

onal Wetlands Inventory Digital data not complete. Totals are likely higher. / Natio

Adjacent Area Tidal wetland buffer classification are not included in the totals

Note: The 90/110 Study Area is used for analysis of Alternatives 90A, 90B, and 110 and consists of the existing 464-mile long Empire Corridor alignment. The 125 Study Area is used for analysis of Alternative 125 and consists of portions of the existing Empire Corridor and new alignment and is 450 miles long. The study area width is defined as being within 300 feet of the corridor centerline.

Facility Name	Facility Type	County/City	Acreag Study /		Potential Section	Potentia Section	
	. second representation		90/110 125		4(f)	6(f)	
Hudson River Park	State Park	Manhattan	0.1	0.1	X		
Riverbank State Park	State Park	New York	26	26	X	х	
Philipse Manor Hall	State Historic Site	Westchester	0.3	0.3	X		
Old Croton Aqueduct	State Historic Park	Westchester	18	18	X	х	
Rockefeller State Park Preserve	State Park	Westchester	153	153	X		
Hudson Highlands State Park	State Park Preserve	Westchester	204	204	X		
Hudson Highlands State Park	State Park Preserve	Putnam	322	322	X	1	
Hudson Highlands State Park	State Park Preserve	Dutchess	398	398	X	1	
underwater State Park	State Park	Putnam	19	19	X		
Walkway over the Hudson State Park	State Park	Dutchess	0.3	0.3	×		
Quiet Cove Riverfront Park	Other	Dutchess	32	32	X		
Margaret Lewis Norrie State Park	State Park	Dutchess	234	234	X	х	
Staatsburgh State Historic Site	State Historic Site	Dutchess	1	1	X	х	
Ogden Mills and Ruth Livingston Mills Memorial State Park	State Park	Dutchess	224	224	×	x	
Clermont State Historic Site	State Historic Site	Dutchess	0.1	0.1	X	-	
Clermont State Historic Site	State Historic Site	Columbia	152	152	X		
Olana State Historic Site	State Historic Site	Columbia	74	74	X		
Conservation Easement (adjoining Olana site)	State Historic Site	Columbia	103	103	x	1	
Building envelope (adjoining Olana site)	Conservation easement	Columbia	7	7	×		
Hudson River Islands State Park	State Park	Columbia	11	11	X		
Schodack Island State Park(undeveloped)	State Park	Columbia	14	14	×	x	
Schodack Island State Park(undeveloped)	State Park	Greene	9	9	×	x	
Schodack Island State Park(undeveloped)	State Park	Rensselaer	185	185	×	x	
Lock 9 State Canal Park	Canal Park	Schenectady	16	0	X	х	
Guy Park	State Historic Site	Montgomery	2	0	X		
Schoharie Crossing	State Historic Site	Montgomery	18	0	X	х	
Herkimer Home	State Historic Site	Herkimer	33	0	X	-	
Oriskany Battlefield	State Historic Site	Oneida	5	0	X	X	
Old Erie Canal State Historic Park	State Historic Park	Madison	185	45	X	X	
Old Erie Canal State Historic Park	State Historic Park	Onondaga	94	12	х	x	
State Fairgrounds	State Recreation Area	Onondaga	85	85	Х		
State Park at the Fair	Other	Onondaga	1	0.7	х		
Whirlpool State Park	State Park	Niagara	6	6	х	X	
Note: The 90/110 Study Area is used for ana alignment. The 125 Study Area is used for an and is 450 miles long, The study area width i Source: New York Office of Parks, Recreation	alysis of Alternative 125 and c is defined as being within 1,00	onsists of portions of 0 feet of the corridor	f the existing I centerline.				

NYSOPRHP State Parks, State Park Preserves, State Historic Sites

	County/City	Acreage wit ftw Study		Potential	Potential
Facility Name		90/110 Study Area	125 Study Area	Section 4(f)	Section 6(f)
Tivoli Bay Wildlife Management Area	Dutchess	412	412	X	х
Middle Ground Flats Unique Area	Greene	9.0	9.1	X	
Middle Ground Flats Unique Area	Columbia	1.3	1.3	Х	
Hudson River at Germantown	Columbia	*	*	х	
Stockport Flats Tidal Wetland	Columbia	31	31	х	
Rogers Island Wildlife Management Area	Columbia	90	90	х	
Hudson State Boat Launch	Columbia	0.2	0.2	x	
Stockport Flats Wildlife Management Area	Columbia	230	230	x	
Nutton Hook Tidal Wetland	Columbia	292	292	х	
Albany Pine Bush State Unique Area	Albany	138	124	x	х
Nelliston Boat Launch Site	Montgomery	*		х	
Plantation Island Wildlife Management Area (Lock 18 WMA)	Herkimer	50	100	x	
Oriskany Flats Wildlife Management Area	Oneida	265		x	
Rome State Wildlife Management Area	Oneida	269		Х	
Carpenter's Creek Fisherman's Access	Onondaga	0,4		X	
Northern Montezuma Wildlife Management Area	Cayuga	75		x	
Northern Montezuma Wildlife Management Area	Wayne	184		x	
Tillman Road Wildlife Management Area	Erie		20	х	

New York State DEC Lands

eage is not

Note: The 90/110 Study Area is used for analysis of Alternatives 90A, 90B, and 110 and consists of the existing 464-mile long Empire Corridor alignment. The 125 Study Area is used for analysis of Alternative 125 and consists of portions of the existing Empire Corridor and new alignment and is 450 miles long. The study area width is defined as being within 1,000 feet of the corridor centerline.

Source: New York State GIS Clearinghouse, New York State Department of Environmental Conservation

RECOMMENDATION 7 (1 YEAR-2021)

Use existing and seek additional State and federal funds to implement the recommendations of the Hudson River Access Plan (HRAP). There are a number of State and federal funding sources that could be used to achieve the objectives of the HRAP. Walkway over the Hudson provides a nationally significant example of how to coordinate numerous public and private funding sources to realize a major accomplishment expeditiously. In a few years, the bridge evolved from being a dangerous eyesore to a regional icon contributing to community revitalization. Funding opportunities to implement HRAP recommendations include:

- Support and pass the \$3 Billion Restore Mother Nature Environmental Bond Act proposed in Governor Cuomo's 2020 State of the State address and ensure funds are allocated to implement some of the recommendations in this plan.
- The community revitalization component of the HRAP should be submitted to the Capital Region and Mid-Hudson Regional Economic Development Councils (REDC) for funding consideration in the 2020 round. This successful program initiated by Governor Andrew Cuomo has provided substantial dollars in the Hudson Valley for projects that address tourism and recreation as it pertains to economic development.
- Governor Cuomo has undertaken the most ambitious infrastructure plan in the nation. The newly expanded \$175B second phase includes over \$130B for transportation, environmental protection, parks and

economic development projects. Seek funds through this source.

- A new two-year capital transportation plan is due to be unveiled by April 1, 2020, as part of the state budget. The program is only for two years instead of the typical five years, since federal allocations run out in September, 2020. In addition, the "Rebuild NY" initiative by the state's contracting associations (such as the NYS Association of General Contractors) is focusing on the ever-growing need to spend funds on immense upstate infrastructure needs (such as historic bridges and safety improvements).
- Governor Cuomo's 2020 proposal of \$300M to better connect the Erie Canal with neighboring downtowns for the purpose of economic revitalization is a potential model to follow for the HRAP. It could be proposed that a similar program be included in the 2021 State of the State address.
- Governor Cuomo's proposal to address high-speed rail in his 2020 State of the State address is an opportunity for the HRAP to be incorporated in the recommendations and funding proposed by his new task force.
- Municipalities should apply to the NYSDOS Local Waterfront Revitalization Program (LWRP) for grant funding to plan for and implement waterfront initiatives, including river access, parks and community revitalization.

- Municipalities and not-for-profits should seek Hudson River Valley Greenway grant funding to provide new river access and improve existing access. Seek appropriation of federal funds through the existing National Heritage Corridor authorization.
- NYSDEC and the NYSDEC Estuary Program offers grant programs.
- Volunteer groups. Amtrak could be encouraged to have an "Adopt a Rail" program similar to NYSDOT's Adopt A Highway program. Groups, once trained, will be able to do shoreline cleanups and make modest improvements for fishing, kayaking and enjoying the river.
- Investigate options to establish a Transportation Bond Act, similar to the Environmental Bond Act, which could address issues such as at-grade crossing upgrades and restoring historic bridges.
- Bundled Bridge Program Encourage creation of not-for-profit "friends of" groups to assist with restoring and maintaining historic bridges. Bundling bridges provides economies of scale by rehabilitating many under one contract

RECOMMENDATION 8 (1 YEAR-2021)

Implement and/or expand education programs to improve safety along the railroad program.

Encourage and expand existing programs being sponsored by schools and organizations to educate the public about the importance of being alert when crossing the tracks. Until and after the state-of-the-art crossing devices are implemented, efforts should continue to install signs, provide educational programs in schools and to local organizations that stress the importance of crossing the tracks safely to access the river. These could be similar to programs provided to schoolchildren about the importance of safely sharing and crossing public highways. "Develop a 5-year implementation plan to upgrade safety at ALL existing crossing sites using today's technology..."

RECOMMENDATION 9 (5 YEARS-2025)

Implement safe crossings plan. Develop a 5-year implementation plan to upgrade safety at ALL existing crossing sites using today's technology for crossings. All crossings should be consistent in signage, gates, and site-specific fencing, enabling safer crossing behavior by the public. The uniqueness of sites should provide for variations on standards as necessary to "think outside the box" for better solutions.

RECOMMENDATION 10 (5 YEARS-2025)

Create pilot programs to open closed crossings and demonstrate today's technology. For example, the Castleton-On-Hudson Riverfront Municipal Park has been fenced off and unavailable for access and use for 25 years. Work on the Pilot Program should begin immediately in 2020, and design, construction and evaluation completed well before 2025.

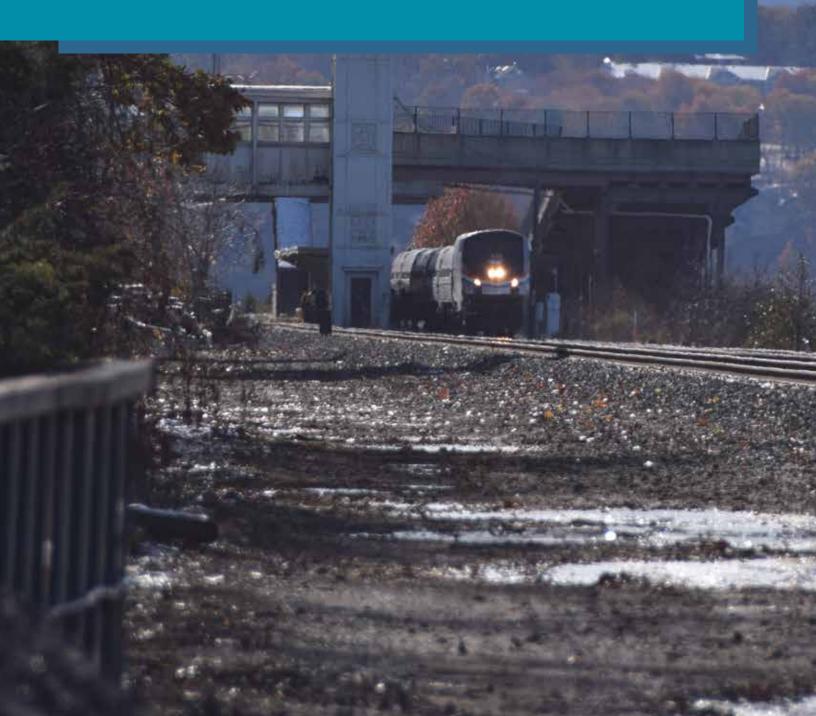
In addition, NYS, the Village of Tivoli and CSX should revisit the agreement that requires the construction of a pedestrian overpass upon completion of a riverfront park at the foot of Diana Street. The overpass would inhibit the park's ability to accommodate the hand launching of rooftop boats, kayaks and canoes. In addition, it would consume valuable land that could be used for water-related recreational purposes. Further, neighbors have raised concerns about the visual impact of the overpass. Finally, the cost of the overpass would impose a financial burden on the village. Since that agreement was signed, new technology exists that could provide safe, atgrade pedestrian access across the railroad to the shoreline.

RECOMMENDATION 11 (5 YEARS-2025)

Assist communities to capitalize on river access as an economic driver for community revitalization. Currently, several plans along the 70 miles of shoreline rely on access as a tool for community revitalization. Such plans include the NYS Downtown Revitalization Initiative, which is benefiting the City of Hudson through a \$10-million grant; municipal long-range plans; Local Waterfront Revitalization Programs (LWRPs) and documented efforts of municipal Waterfront Advisory Committees.

Economic centers with proximity to the river can be more readily revitalized and directly benefit from cooperation by Amtrak to secure, upgrade, and maintain access (see site sheets).

ACCESS MAPS



ACCESS POINTS

The consultant team inventory used existing GIS data and Google Earth aerial images along approximately 70 miles along the east shore of the Hudson River, including existing public and private parks, preserves, recreational lands and Hudson River Water Trail sites.

In addition, a physical field review of the shoreline was conducted on November 12 and 13, 2019. The team also inventoried places that appeared or are known to provide public or private access for fishing, boating or other activities.. Each of these sites is described in this report and included on the inventory maps.

The consultant team assessed 64 sites which are described in further detail in Chapter 5, with an individual site sheet for each location. These descriptions include size, ownership, access across the railroad, existing uses and recommendations for future uses. Additional, less traveled locations were identified by the public and are listed on page 46.

SHORELINE CHALLENGES

The consultant team also assessed shoreline conditions for characteristics that physically restrict access. These characteristics include: places where the railroad is directly along the river's edge and where steep grades are present. Each of these conditions is included on the inventory maps.

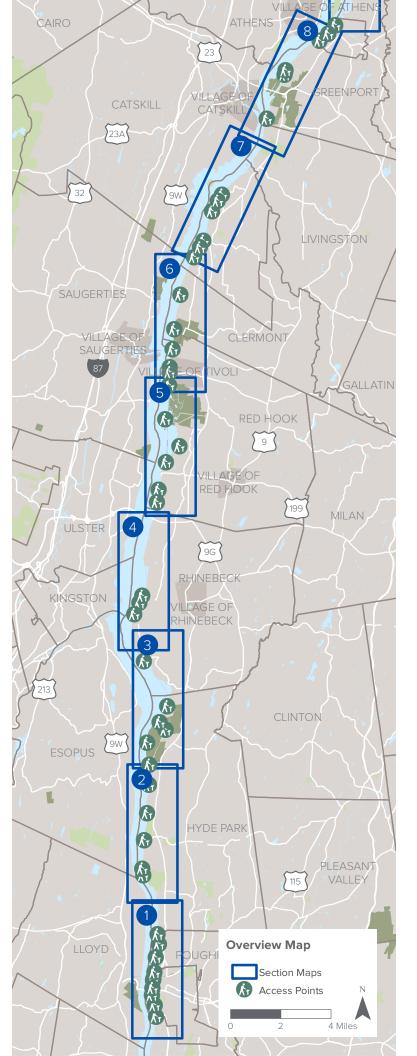
RAILROAD AT RIVER'S EDGE

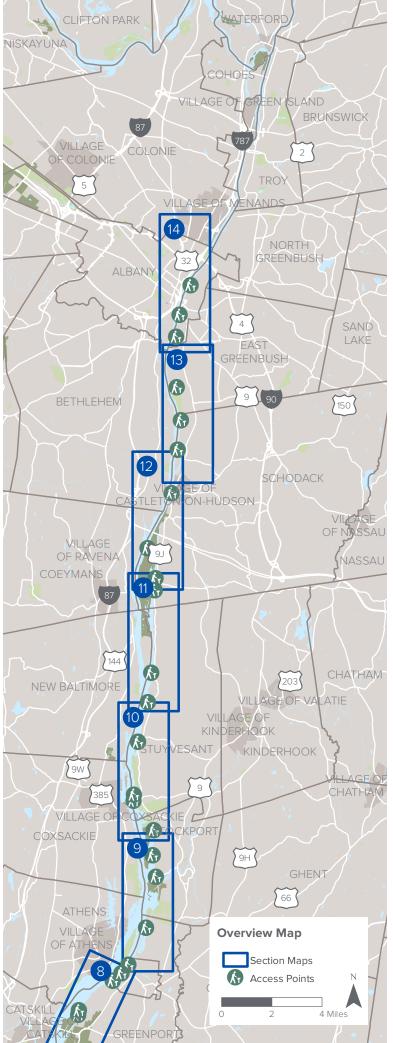
Places where the railroad tracks sit directly adjacent to the river's edge are identified on the inventory maps. These locations cross through wetlands or are located on a berm paralleling the riverbank and result in little to no usable land for river-related recreation. A distance of 35 feet or less between the shoreline and the centerline of Access points: 64 Greenway Water Trail sites: 24 Boat launches: 13 Marinas: 8 Railroad at-grade crossings: 18 Bridges over railroad: 32 Tunnels under railroad: 6 Railroad at river's edge: 43 miles Steep slopes: 28 miles Proposed railroad gates: 9 Proposed railroad fencing: 0.43 miles

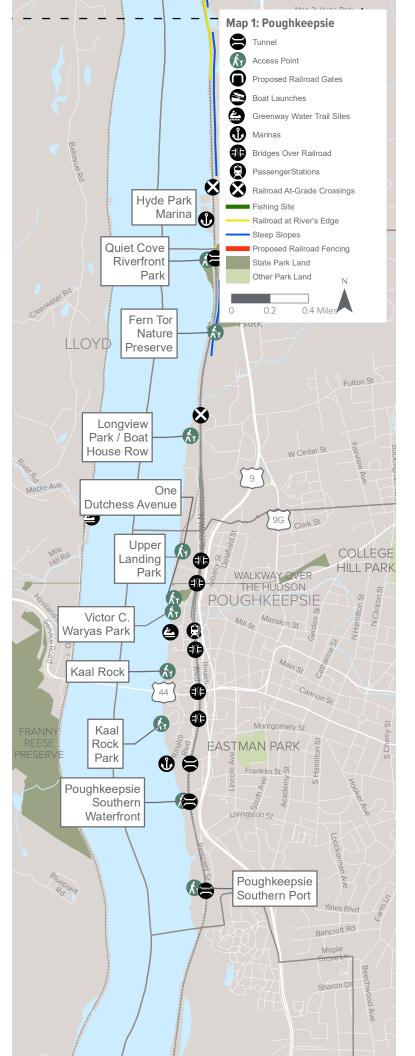
the most western track was used to determine if access was feasible. A separation of at least 25 feet would likely be required for a rail with trail. This separation is not available for approximately 43 miles (61%) of the shoreline between Rensselaer and Poughkeepsie for public access.

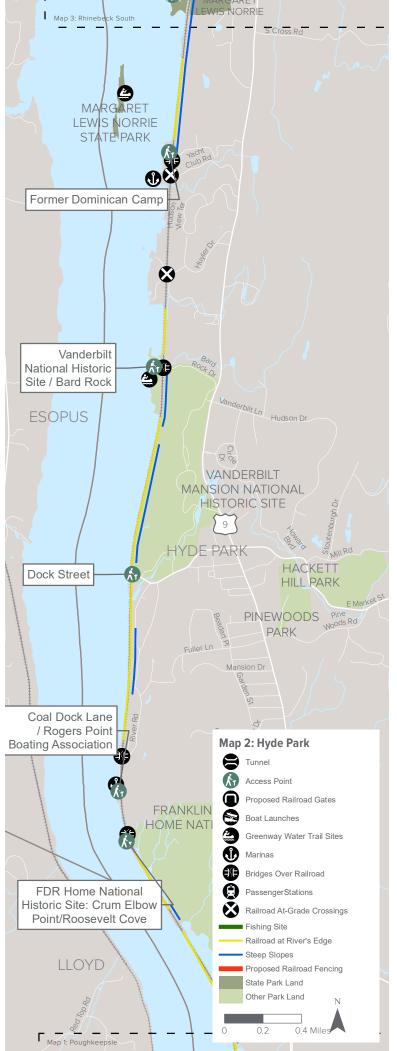
TOPOGRAPHY

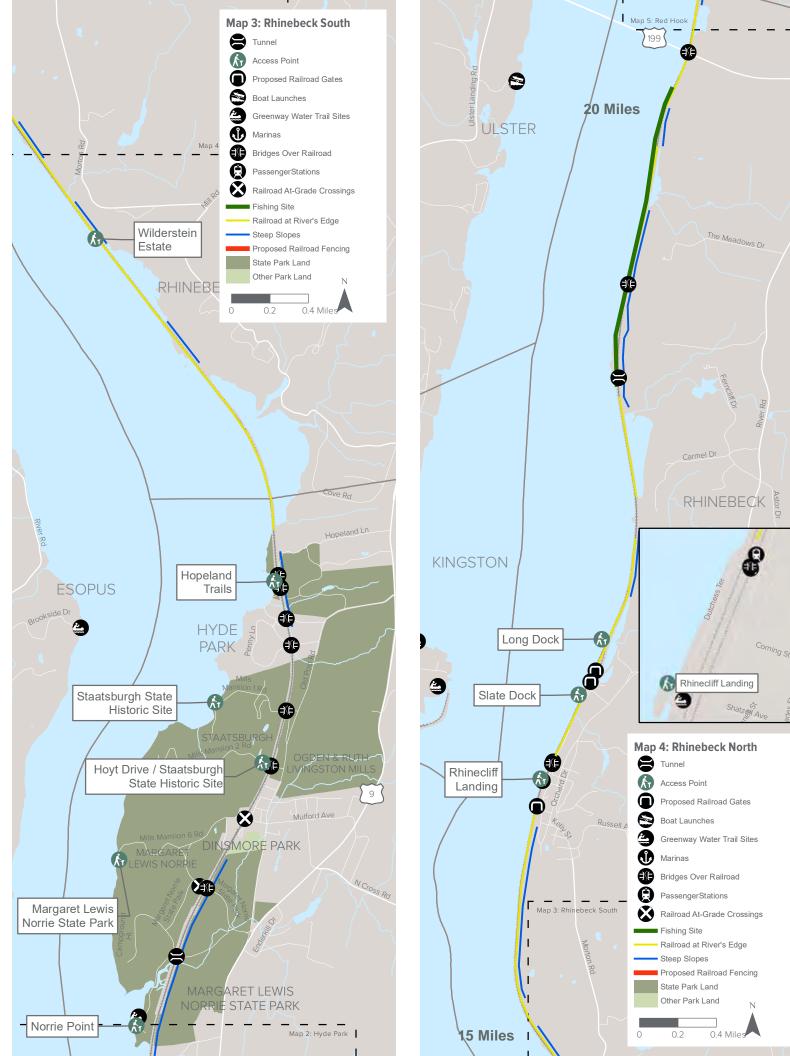
The Hudson River shoreline presents a variety of edge conditions. For several areas along this portion of the river, it results in steep banks exceeding 30 feet to 70 feet above water level. Steep slopes prohibit construction of a roadway or trail that would allow for direct river access at these locations. This restricts approximately 28 miles (or 40%) of the shoreline between Rensselaer and Poughkeepsie for public access. Overlapping locations where access is limited by both topography and the railroad being at the river's edge accounts for approximately 16 miles.

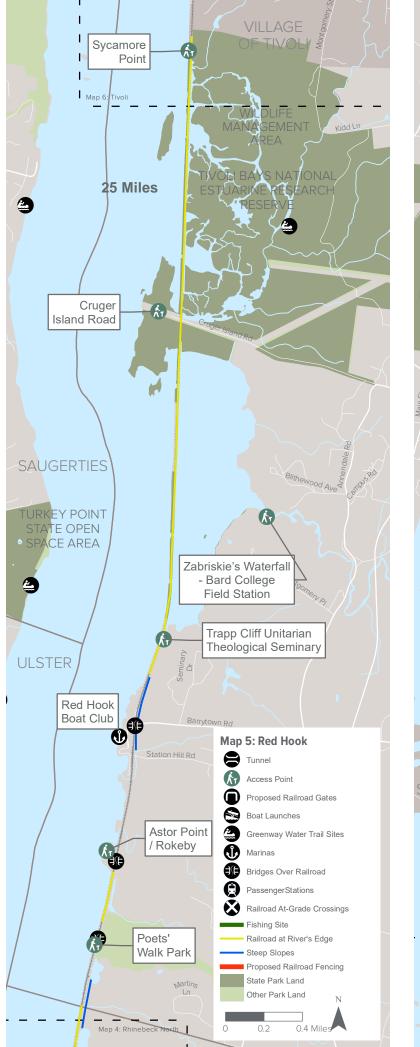


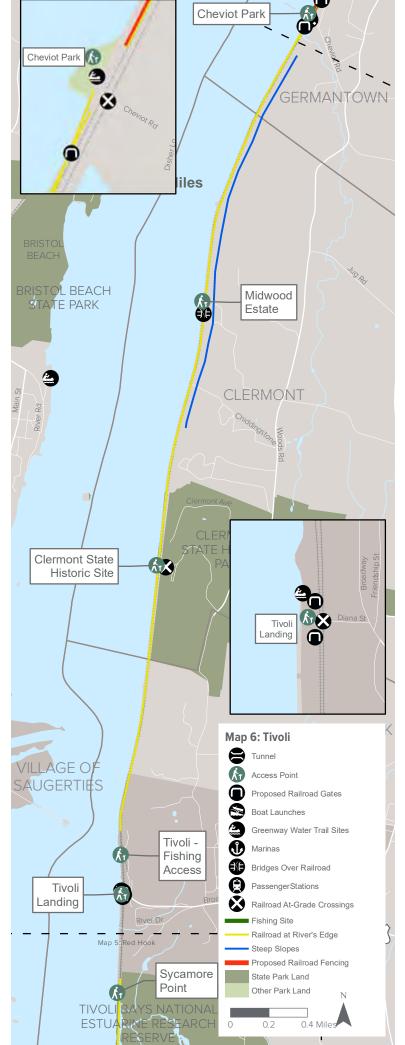


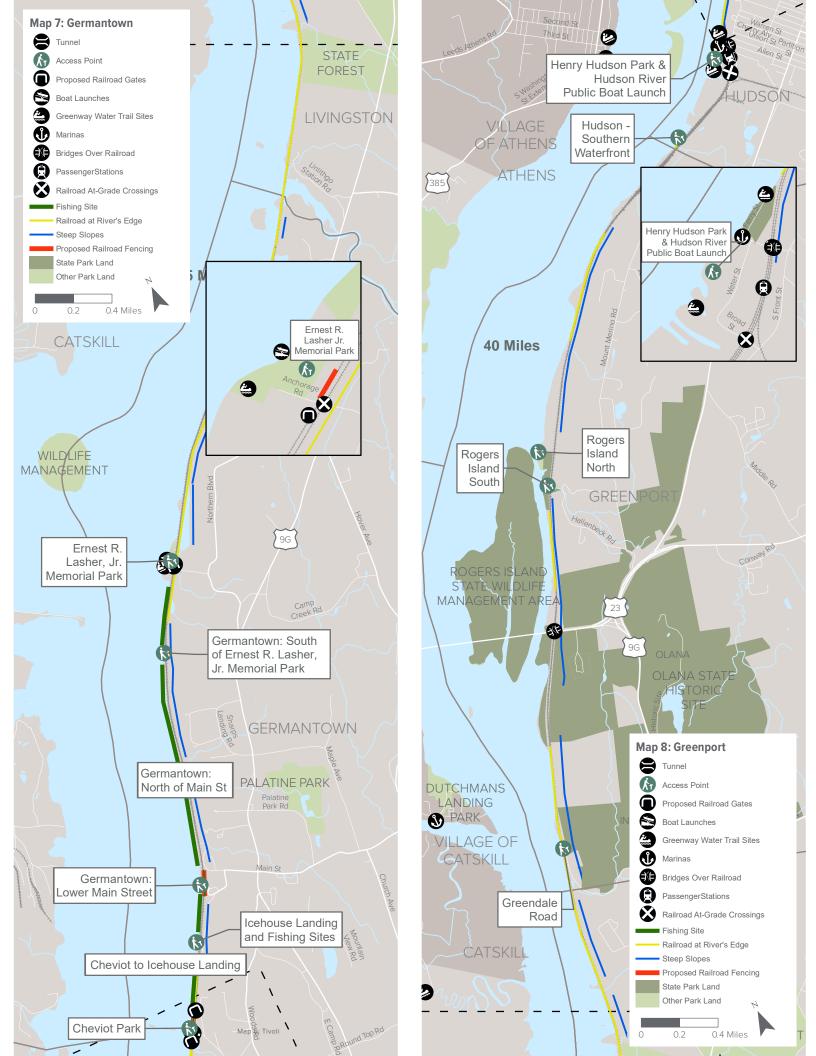


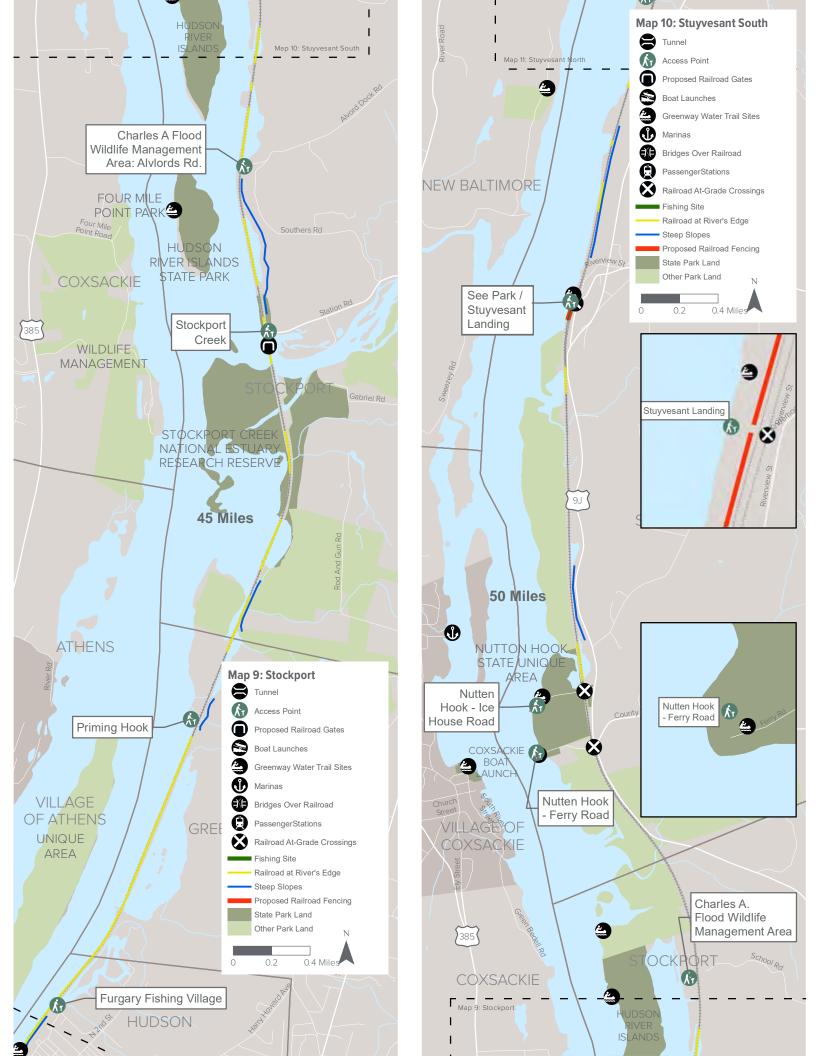


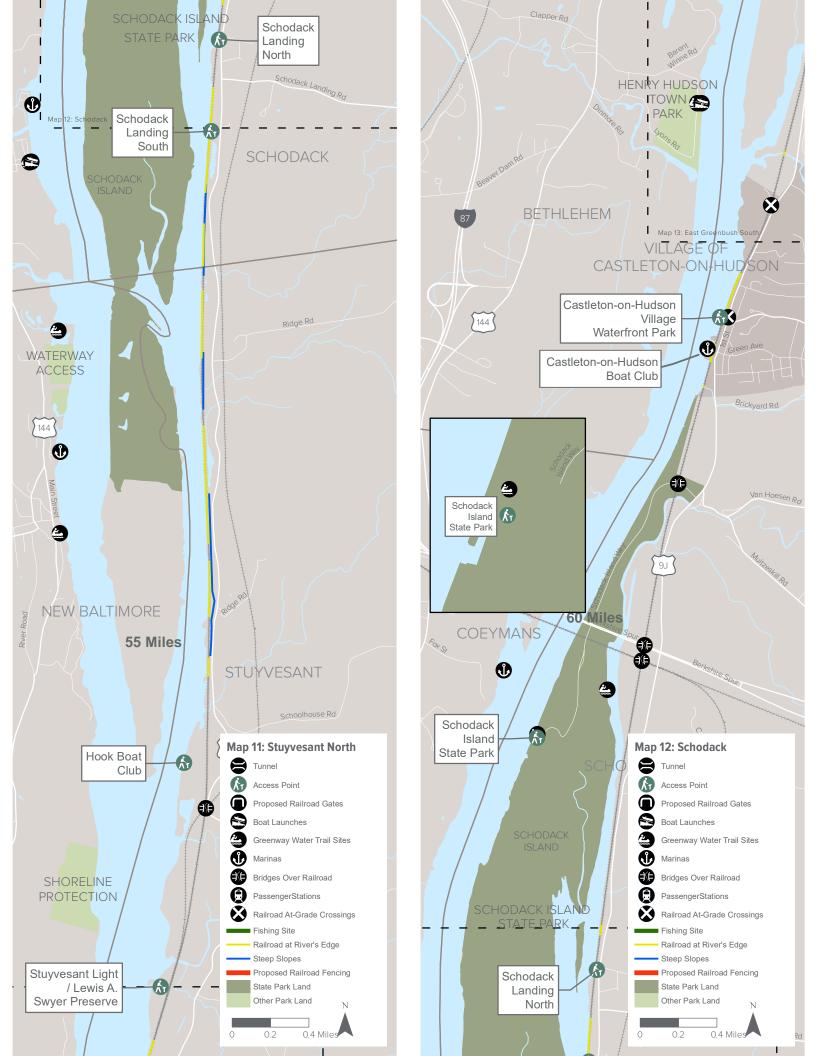


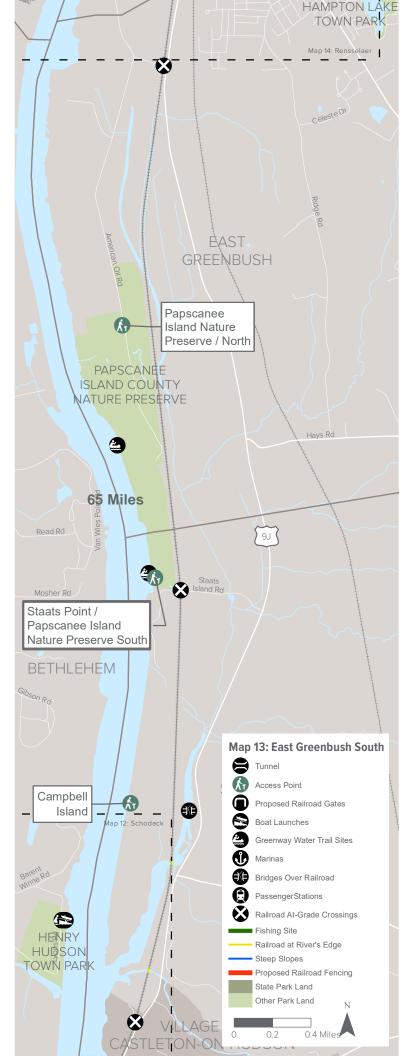


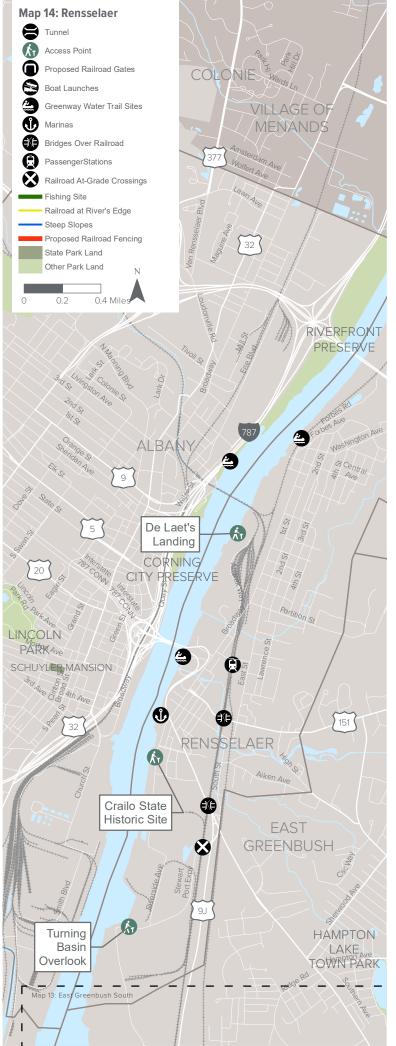




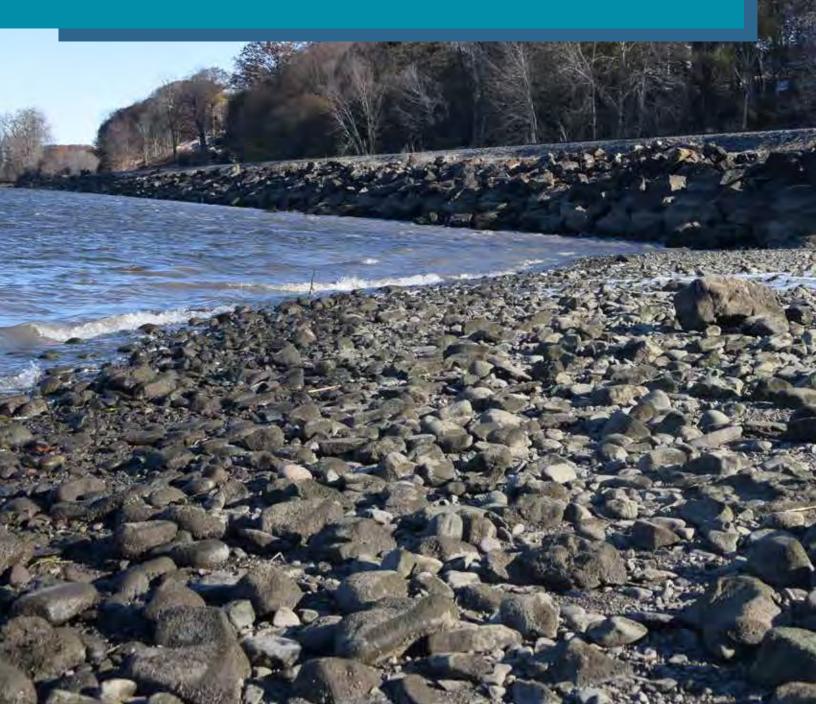








S ACCESS SITES



INTRODUCTION

Existing public parks, preserves, recreational lands and formally-designated Hudson River Water Trail sites were inventoried and presented to the public for feedback. Each of these sites is described in this report and included on the inventory maps.

OTHER ACCESS SITES

A number of additional sites were identified through the public outreach process. For some of these, site sheets have been included, while others turned out to be private property with very limited access or were very minor in nature. Even though all are not described in detail, each site is worth noting to fully document areas were people currently or would like to access the Hudson River. (These sites are not included on the access site maps). These sites include:

• Poughkeepsie Rural Cemetery (Poughkeepsie, Dutchess)

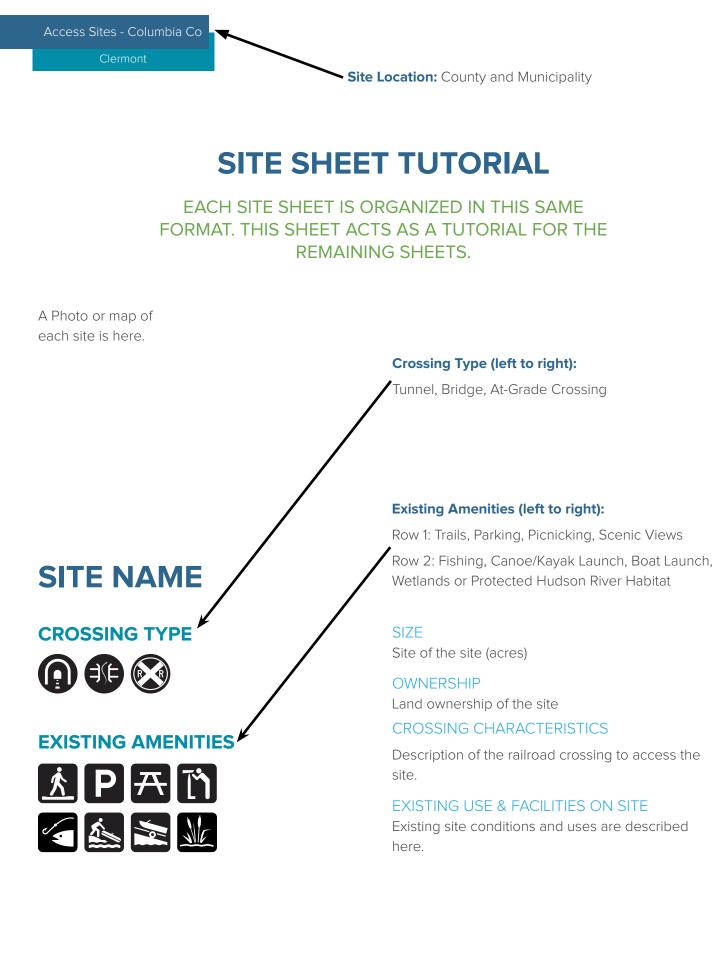
- Locusts-on-Hudson (Staatsburgh, Dutchess)
- Sturgeon Point (Rhinebeck, Dutchess)
- Edgewood (Tivoli, Dutchess)
- North Tivoli waterfront (Germantown, Columbia)
- Occluded Cove habitat (Germantown, Columbia)
- North Germantown waterfront (Germantown, Columbia)
- Camp Creek mouth (Germantown, Columbia)
- Camp Creek Cove (Germantown, Columbia)
- Ford site (Germantown, Columbia)
- Roeliff Jasen Kill / Station Road (Germantown, Columbia)
- Columbia Greene Community College
 (Livingston, Columbia)
- Hudson Dog Park (Hudson, Columbia)
- 9J- South of Castleton (Castleton-on-Hudson, Rensselaer)



Image from site visit



Image from site visit



Site "Votes": Survey respondents were able to "vote" on each proposed site on the online interactive map. The number of people that indicated that they already use the site or would like to use the site is indicated here.

Desired Amenities or Uses: Respondents were also able to indicate what they use or would like to use the site for. The popular choices are indicated here. From left to right:

Row 1: Trails, Parking, Picnicking, Scenic Views, Swimming

Row 2: Fishing, Canoe/Kayak Launch, Boat Launch, Birding, Education/Habitat Restoration

66

A quote about this specific site from a respondent to our online map/survey.

-Survey Respondent

RECOMMENDATIONS

Site specific crossing recommendations are provided here.

PUBLIC INPUT

10 respondents already use this site, and

10

respondents would like to use this site

The most desired amenities for this site are:



100% would like to use this site for **scenic views**



POUGHKEEPSIE SOUTHERN PORT

CROSSING TYPE



EXISTING AMENITIES



SIZE

>10 acres

OWNERSHIP Private

CROSSING CHARACTERISTICS

A tunnel underneath the railroad right-of-way allows for vehicular access to this area.

The site is home to several industrial uses. A bulkhead along much of the Hudson River in this area provides access for commercial shipping, such as oil barges.

PUBLIC INPUT

9 respondents already use this site, and

19 respondents would like to use this site

The most desired amenities for this site are:



80% would like to use this site for scenic views

60% would like to use this site for trails and birding

RECOMMENDATIONS

Maintain existing tunnel access. Extend the City of Poughkeepsie's Riverfront Greenway Trail to the site if and when industrial uses are no longer viable.



POUGHKEEPSIE SOUTHERN WATERFRONT

CROSSING TYPE



EXISTING AMENITIES



SIZE

13.4 acres

OWNERSHIP City of Poughkeepsie / Private

CROSSING CHARACTERISTICS

A small tunnel that passes beneath the elevated rail prism approximately 3000 feet south of the Mid-Hudson Bridge. The entrances are overgrown and fenced. The west portal of the tunnel opens onto currently undeveloped waterfront property. The east portal opens onto a residential development.

The tunnel opens up to the larger contiguous Poughkeepsie waterfront which includes former industrial sites, and open space from past demolitions and urban renewal. The area has been cleared of old structures.

PLANNED IMPROVEMENTS

Current and future planned developments in this area include rehabilitation of this tunnel to provide public access to this area of the waterfront. The adjacent developer is required to make the improvements to this tunnel that will allow a trail connection to the waterfront, per conditional approval received from the City planning board.

PUBLIC INPUT

15 respondents **already use this site,** and

17 respondents would like to use this site

The most desired amenities for this site are:



83%

would like to use this site for recreation, scenic views, trails, and canoe/kayak access

67% would like to use this site for birding

66

This beautiful location should be open to the public to enjoy amazing views and access to the Hudson."

-Survey Respondent

RECOMMENDATIONS

Rehabilitate the tunnel to provide public access to the waterfront as currently planned. To implement the City of Poughkeepsie's riverfront Greenway Trail, extend trail from the Shadows Marina through the Southern Waterfront and under the railroad through Hudson Point to connect to Prospect Street.



KAAL ROCK PARK/KAAL ROCK

CROSSING TYPE



EXISTING AMENITIES



SIZE

5 Acres

OWNERSHIP City of Poughkeepsie

CROSSING CHARACTERISTICS

The park and promenade are accessible by the Laurel Street or Pine Street grade-separated crossings.

The park is located along the waterfront south of Kaal Rock. The park contains a dock that is no longer in use, parking, picnic tables, and a trail along the waterfront that extends to the south.

POTENTIAL/DESIRED IMPROVEMENTS

A connector trail to the north, around or over Kaal Rock is currently in design by the City of Poughkeepsie. Other park improvements have been proposed as part of the Local Waterfront Revitalization Plan and Comprehensive Plan.

66

This is an integral site to link important waterfront resources so the public can have access and to the river."

-Survey Respondent

PUBLIC INPUT

46 respondents **already use this site,** and

35 respondents would like to use this site

The most desired amenities for this site are:



92% would like to use this site for scenic views and trails

77% would like to use this site for recreation

RECOMMENDATIONS

Maintain existing crossings and access to the site. Incorporate LWRP recommendations. Construct the Kaal Rock Connector to link Waryas Park and Kaal Rock Park. Create a unified development plan for Poughkeepsie's riverfront parks, including improvements to Kaal Rock Park.



VICTOR C. WARYAS PARK

CROSSING TYPE



EXISTING AMENITIES



SIZE

8.25 Acres

OWNERSHIP City of Poughkeepsie

CROSSING CHARACTERISTICS

The park can be accessed by Main Street Bridge or Poughkeepsie Train Station Bridge crossings.

The park contains a popular boat ramp, ferry landing, floating dock, fixed pier, playground, picnic tables, and restrooms, and a waterfront restaurant and promenade path. The promenade path continues across the Fall Kill to the north, connecting to Upper Landing Park and the Walkway Over the Hudson State Historic Park. This is also a Hudson River Greenway Water Trail Site.



RECOMMENDATIONS

Maintain existing access to the park. Create a unified development plan for Poughkeepsie's riverfront parks, including improvements to Waryas Park.

PUBLIC INPUT

30 respondents **already use this site,** and

respondents would like to use this site

The most desired amenities for this site are:



100%

would like to use this site for **recreation and scenic views**

67% would like to use this site for trails and parking



UPPER LANDING PARK

CROSSING TYPE



EXISTING AMENITIES



SIZE

2.5 Acres

OWNERSHIP

Owned by Dyson Foundation; Maintained by NYS OPRHP

CROSSING CHARACTERISTICS

The park can be accessed by Main Street Bridge or Poughkeepsie Train Station bridge crossings.

Upper Landing Park is situated between Victor C. Waryas Park to the south and Walkway Over the Hudson to the north. The connection to the Walkway is via the elevator at the base of the bridge at the north end of the park.

66

IMPORTANT River Access Point as part of NYS DEC Fish & Wildlife Hudson River American Glass Eel Project!!"

-Survey Respondent

RECOMMENDATIONS

Maintain existing access to the park.

PUBLIC INPUT

23 respondents already use this site, and

7 respondents would like to use this site

The most desired amenities for this site are:



100% would like to use this site for scenic views

67% would like to use this site for trails and recreation



ONE DUTCHESS AVENUE

CROSSING TYPE



EXISTING AMENITIES



SIZE

2.45 acres

OWNERSHIP Private / Public Easement (City of Poughkeepsie)

CROSSING CHARACTERISTICS

An existing vehicular bridge (Hoffman Street) crosses over the railroad tracks to provide access to this site.

The site is being redeveloped as a mixed-use residential waterfront with a public esplanade connecting Dutchess Avenue with the Hudson River Rowing Association facility at "Boathouse Row".

PLANNED IMPROVEMENTS

A private residential development is under construction at this site. The site plan includes a public esplanade. Coordination with Central Hudson would be required to connect this proposed path to the path to the Walkway Over the Hudson Elevator.

66

A connection is needed between Walkway Over the Hudson's waterfront access elevator and Dutchess Avenue/waterfront esplanade at One Dutchess Avenue.

-Survey Respondent

RECOMMENDATIONS

Maintain existing bridge access. Remove the fence at the north end of the site to connect the Riverfront Greenway Trail to Boathouse Row. To the south, connect the esplanade / Riverfront Greenway Trail through the Central Hudson site to the Walkway Over the Hudson elevator.

PUBLIC INPUT

10 respondents already use this site, and

14

respondents would like to use this site

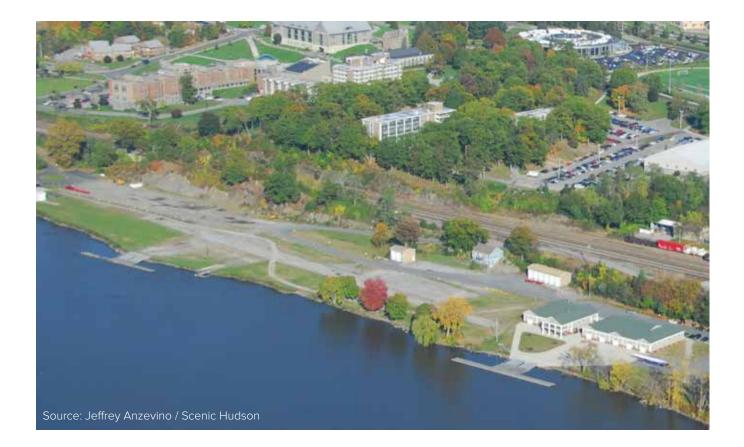
The most desired amenities for this site are:



75% would like to use this site for trails and recreation

50% would like to use this site for scenic views Access Sites - Dutchess Co

Poughkeepsie



LONGVIEW PARK / BOAT HOUSE ROW

CROSSING TYPE



EXISTING AMENITIES



SIZE

7.5 Acres

OWNERSHIP Private (Marist College and Vassar College)

CROSSING CHARACTERISTICS

One-lane tunnel below the railroad to connect the college campus to the riverfront park, Hoffman Street bridge and North Water Street.

Longview Park includes a bike/walk path along the river, a fishing pier, Marist's historic Cornell boathouse, and scenic vistas.

PLANNED IMPROVEMENTS

A future greenway trail is planned along the riverfront that will connect south to the City of Poughkeepsie and north to Hyde Park.

66

IMPORTANT river access site for Hudson River Rowing Association AND annual Dutchess Dragon Boat Races & Festival fund-raising event for Habitats for Humanity Dutchess!"

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

48 respondents **already use this site,** and

27 respondents would like to use this site

The most desired amenities for this site are:



80%

would like to use this site for recreation and scenic views

60% would like to use this site for trails

Maintain existing tunnel for access to the site. Construct City of Poughkeepsie Riverfront Greenway Trail through the site to connect to One Dutchess Avenue and Fern Tor.



FERN TOR NATURE PRESERVE

CROSSING TYPE



EXISTING AMENITIES



SIZE

13 acres

OWNERSHIP Private (Marist College)

CROSSING CHARACTERISTICS

There is no existing railroad crossing at this site.

EXISTING USE & FACILITIES ON SITE

The Fern Tor Nature Preserve has a small network of hiking trails. It is the home of St. Ann's Hermitage at Marist College.

PLANNED IMPROVEMENTS

Marist College plans to formalize access at this site. The upland portion of the Nature Preserve will likely accommodate an extension of the City of Poughkeepsie Riverfront Greenway Trail to connect with the Hyde Park Trail.

66

Trail connection City of Poughkeepsie to Hyde Park Trails"

-Survey Respondent

RECOMMENDATIONS

Allow for planned connection between City of Poughkeepsie Riverfront Greenway Trail and Hyde Park Trail. Consider railroad crossing for river access and trail, if required.

PUBLIC INPUT

respondents **already** use this site, and

4

Δ

respondents would like to use this site

The most desired amenities for this site are:



100% would like to use this site for trails



QUIET COVE RIVERFRONT PARK

CROSSING TYPE



EXISTING AMENITIES



SIZE

6 Acres

OWNERSHIP

Owned by NYSOPRHP; Maintained by Dutchess County

CROSSING CHARACTERISTICS

The site is reached via Clearwater Drive by way of a single-lane paved road via a tunnel under the railroad tracks. The street leads to a gate at the park entrance on the west side of the tunnel.

The park provides two observation decks for scenic views and a trail along the riverfront. A small boat launch is available as well as areas for picnicking and fishing. Kayak rentals are also available. The park is closed between November and April.



66

Park isn't open as often as it should be. Would like to use it more."

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

40 respondents already use this site, and

15

respondents **would** like to use this site

The most desired amenities for this site are:



100% would like to use this site for scenic views

78% would like to use this site for trails and recreation

Maintain existing underpass. Increase days that the park is open each year. Create Riverfront Greenway Trail connections to the north and south. To the north, in order to create additional circulation, provide emergency access, and preserve additional waterfront access for the public, create access between the railroad and the river to connect to the Hyde Park Marina site. Construct docks for day-use transient boats.



HYDE PARK MARINA

CROSSING TYPE



EXISTING AMENITIES



SIZE

4 acres

OWNERSHIP Private

CROSSING CHARACTERISTICS

There is an existing at grade private crossing available to access the Marina at River Point Road.

This is an existing private marina with a boat launch and several slips.

66

I'd like to have access to the River here for hiking and kayaking w/ a safe RR crossing at River Pt. Rd. Eventually, a trail connection to Quiet Cove Park and Walkway..."

-Survey Respondent

PUBLIC INPUT

26 respondents already use this site, and

34 respondents would

like to use this site

The most desired amenities for this site are:



75% would like to use this site for trails, birding, recreation, and scenic viewing

RECOMMENDATIONS

Maintain existing at-grade crossing. Create Riverfront Greenway Trail connections to the north and south. To the south, in order to create additional circulation, provide emergency access, and preserve additional waterfront access for the public, create access between the railroad and the river to connect to Quiet Cove Riverfront Park.



FDR HOME NATIONAL HISTORIC SITE: CRUM ELBOW POINT/ROOSEVELT COVE

CROSSING TYPE



EXISTING AMENITIES



SIZE

640 acres (entire FDR site); 0.6 acres (river edge)

OWNERSHIP

National Park Service

CROSSING CHARACTERISTICS

An historic steel truss bridge over the rail line currently closed due to condition.

EXISTING USE & FACILITIES ON SITE

The site has a navigation aid for vessels on the Hudson River. There is an existing historic truss bridge that crosses the railroad but is closed for public and motor vehicle use. To the south is Roosevelt Cove. FDR & Hyde Park trail systems provide access to or near both these locations but do not continue across the tracks to provide access to the river. At Roosevelt Cove, there is also issues with flooding due to an existing beaver dam.

66

Crum Elbow Point was long used as a hike destination, scenic viewpoint and picnicking spot... The bridge needs repair."

-Survey Respondent

66

The now-closed Cove Trail was historically important, as the route used to bring FDR's coffin from the train [boathouse] to the grave site. In recent times, it enabled wildlife viewing and birding..."

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

38 respondents already use this site, and

36 respondents **would**

like to use this site

The most desired amenities for this site are:



79% would like to use this site for scenic views

71% would like to use this site for trails

Restore historic truss bridge for pedestrian and bicycle access. Include the bridge in a corridor wide bridge repair contract. Resolve flooding/path issue due to beaver dam to reopen historic Roosevelt Cove.

Hyde Park



COAL DOCK LANE / ROGERS POINT BOATING ASSOCIATION

CROSSING TYPE



EXISTING AMENITIES



SIZE

2.4 acres

OWNERSHIP

Private

CROSSING CHARACTERISTICS

The site is accessible by a vehicular bridge over the railroad tracks on Coal Dock Road.

This is the location of several single-family homes and a private boat club - "Rogers Point Boating Association". There are two existing boat launches and slips where members can keep their boats. Events are also hosted here. The historic truss is open to vehicular traffic, but is in need of rehabilitation so that it can remain open.

66

This is an important access point for Hyde Parkers. It provides access to Roger's Point Boat Club, where residents keep boats and attend events...A loss of this access would hurt Hyde Park"

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

30 respondents **already use this site,** and

31 respondents would like to use this site

The most desired amenities for this site are:



92% would like to use this site for trails and scenic views

77% would like to use this site for canoe/kayak access

Maintain existing bridge crossing. Include the bridge in a corridor wide bridge repair contract.



DOCK STREET

CROSSING TYPE



EXISTING AMENITIES



SIZE

5 acres / 1.7 acres (river side)

OWNERSHIP Private

CROSSING CHARACTERISTICS

There is no crossing infrastructure present at the railroad. A bridge over the Crum Elbow Creek leads to a gate just before the railroad, pictured right. The stone arch bridge is currently closed due to structural concerns.

The Dock Street ROW ends at a long, narrow waterfront parcel that is privately owned, and wholly situated on the east side of the railroad tracks and connects to the former Hyde Park railroad station. There are no facilities visible on the narrow strip of land between the rail line and riverbanks. The railroad crosses the Crum Elbow Creek with bridge clearance that allows access by small boats to the marina.



66

This road used to provide Hyde Park with access for canoeing, kayaking & fishing until the private gate was installed. Until the bridge was closed, it was also the direct, obvious & attractive route of the Hyde Park Trail into the Vanderbilt site."

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

56 respondents already use this site, and

98

respondents would like to use this site

The most desired amenities for this site are:



91% would like to use this site for scenic views

72% would like to use this site for recreation

Rehabilitate the existing stone arch bridge (\$1.5 - \$2M) to restore access to the south gate of the Vanderbilt estate, and restore access across the railroad to the river.



VANDERBILT NATIONAL HISTORIC SITE / BARD ROCK

CROSSING TYPE



EXISTING AMENITIES



SIZE 211 acres / 10.7 acres (riverside)

OWNERSHIP National Park Service

CROSSING CHARACTERISTICS

A bridge crosses over the railroad tracks to allow visitors access to the Bard Rock recreational area along the Hudson River.

The site houses the Vanderbilt mansion, lawns, formal gardens, and woodlands. The site offers scenic views of the Hudson River. An access road leads to the bridge over the railroad and a parking area at Bard Rock. Access is regulated by a gate at the top of the road, particularly on busy summer days. This site has a kayak landing and is a formal Hudson River Greenway water trail site for day use.

66

Bring back waterfront access as it was intended."

-Survey Respondent

RECOMMENDATIONS

Maintain existing bridge crossing. Address South gate maintenance access by restoring the Dock Street Bridge on the south end of the Vanderbilt Estate.

PUBLIC INPUT

38 respondents already use this site, and

12

respondents would like to use this site

The most desired amenities for this site are:



71% would like to use this site for

recreation, scenic views, and trails

57% would like to use this site for birding



FORMER DOMINICAN CAMP

CROSSING TYPE



EXISTING AMENITIES



SIZE 72 acres OWNERSHIP

Scenic Hudson

CROSSING CHARACTERISTICS

An historic bridge is located over the railroad tracks but is currently closed due to its condition.

EXISTING USE & FACILITIES ON SITE

A former summer camp, this wooded property on the Hudson River offers spectacular views of the Black Creek Preserve, directly across the river, as well as Esopus Island, Shaupeneak Ridge (also a Scenic Hudson park) and the Catskill Mountains. The site also contains 60 acres of federally designated wetlands, including numerous ecologically important vernal pools, and the circa-1769 George Rymph house, listed on the National Register of Historic Places. It safeguards iconic views from parkland across the river and ensures that the property's 700 feet of shoreline will forever remain a public resource. The Hyde Park Trail runs through the site, connecting a neighborhood to the south of Mills-Norrie State Park.

Repairing the bridge here and enabling river access would vastly improve the old Dominican Camp property and make it more attractive for all recreational

uses."

-Survey Respondent

66

Please fix this bridge. It would allow access between the Hyde Park Trail and the river's shore." –Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

10 respondents already use this site, and

22 respondents would like to use this site

The most desired amenities for this site are:



100% would like to use this site for recreation and birding

75% would like to use this site for scenic views, trails, and canoe/ kayak access

Rehabilitate and reopen the existing bridge over the railroad as part of a corridor wide bridge repair contract to provide river access.



NORRIE POINT

SUBSET OF THE MARGARET LEWIS NORRIE STATE PARK

CROSSING TYPE



EXISTING AMENITIES



SIZE Over 50 Acres

OWNERSHIP NYS OPRHP

CROSSING CHARACTERISTICS

Single-lane tunnel under the railroad that connects Thompson Lane / Norrie Point Way to riverfront grounds. The tunnel provides access for a trail and is only for bicycles and pedestrians.

The park entrance road leads to Thompson Lane and the campgrounds and hiking trails. To the south is a marina, boat launch, and the Norrie Point Environmental Study Center. A kayak rental is also available. These facilities are all within the larger Mills-Norrie State Park and the Hyde Park waterfront. This is also a Hudson River Greenway Water Trail site.

66

Public access to the river is so important! Access points need to be maintained for the public to enjoy our natural treasures safely."

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

63 respondents already use this site, and

15

respondents would like to use this site

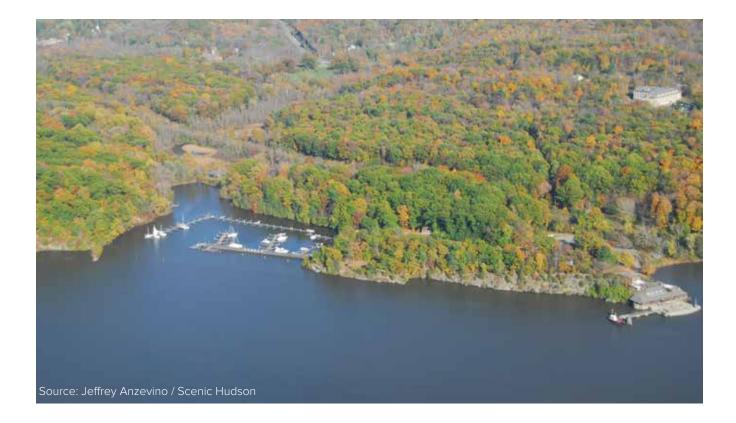
The most desired amenities for this site are:



92% would like to use this site for trails

67% would like to use this site for scenic views

Maintain existing tunnel for bicycle and pedestrian access.



MARGARET LEWIS NORRIE STATE PARK

CROSSING TYPE



EXISTING AMENITIES



SIZE 356 Acres

OWNERSHIP NYS OPRHP

CROSSING CHARACTERISTICS

Two-lane bridge over the railway to serve as one of the main entrances to the state park; connecting NYS Route 9 to the inner campgrounds, trails, and waterfront.

The state park offers miles of trail for hiking, bicycling, cross country skiing or snowshoeing. This is a Hudson River Greenway Water Trail site. There are numerous parking areas on the site and several campgrounds, cabins, as well as a trailered boat launch. The park offers scenic views of the Hudson River. River access is available at the Norrie Marina and at the Norrie Environmental Center.



66

The trails right on the river are so valuable with views and small fishing areas, beaches to beachcomb."

-Survey Respondent

RECOMMENDATIONS

Maintain existing vehicular bridge crossing.

PUBLIC INPUT

72 respondents **already** use this site, and

17

respondents would like to use this site

The most desired amenities for this site are:



77% would like to use this site for trails

69% would like to use this site for recreation and scenic views



HOYT DRIVE / STAATSBURGH STATE HISTORIC SITE

CROSSING TYPE



EXISTING AMENITIES



SIZE

9.1 Acres

OWNERSHIP NYS OPRHP

CROSSING CHARACTERISTICS

Grade-separated crossing via an historic closed one-lane truss bridge over the rail line (pictured above). Bridge is currently closed due to a lack of maintenance.

There are many excellent reasons to restore the Hoyt Bridge as a pedestrian entrance to the state park. Hoyt Drive was the original carriage road leading to the historic Hoyt House (1855) an estate once known as "The Point." The house and carriage roads were designed by Calvert Vaux, who just a few years later teamed up with Frederick Law Olmsted to design Central Park.



66

A beautiful trail falling into disrepair from lack of use and neglect. "

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

21 respondents already use this site, and

11

respondents would like to use this site

The most desired amenities for this site are:



100% would like to use this site for

trails

55% would like to use this site for recreation

Rehabilitate existing bridge as part of a corridor wide bridge contract to restore the trail and additional access to the park.

Hyde Park



STAATSBURGH STATE HISTORIC SITE

CROSSING TYPE



EXISTING AMENITIES



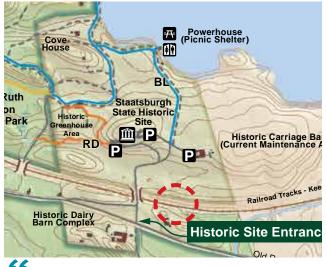
SIZE Over 50 Acres

OWNERSHIP NYS OPRHP

CROSSING CHARACTERISTICS

Concrete bridge over the railway connecting Old Post Road to the Staatsburgh State Historic Grounds site. The two lane vehicular bridge is in serious disrepair and has been restricted to alternating one-lane traffic. This criticial access is the only paved (all-weather) entrance and exit to the site and park.

The Staatsburgh State Historic Site is comprised of a gilded age mansion and grounds. The Staatsburgh trail network connects to trails within Mills-Norrie State Park, as shown on the map below. The site also provides parking and picnic areas.



We have spent many afternoons exploring these trails—observing bald eagles, and gathering river treasures. Please keep this site accessible."

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

61 respondents already use this site, and

14

respondents **would** like to use this site

The most desired amenities for this site are:



90% would like to use this site for trails

80% would like to use this site for scenic views and birding

Prioritize NYS capital funding to reconstruct or replace the non-historic vehicular bridge to maintain proper access to the site. Reconstructed or replacement bridge should be context sensitive and allow safe passage of pedestrian and bicyclists.

Access Sites - Dutchess Co

Hyde Parl





HOPELAND TRAILS

CROSSING TYPE



EXISTING AMENITIES



SIZE

97 acres / 6.5 acres (river's edge)

OWNERSHIP NYS OPRHP

CROSSING CHARACTERISTICS

Two historic steel truss bridges provide access to the Hudson River waterfront. Currently, both bridges are closed due to deck conditions.

The riverfront is undeveloped. Remnants of a dock or pier are seen on aerial photographs. As shown on the trail map, the existing hiking trails no longer extend to the bridges due to their poor condition. One bridge's deck has been removed and the other bridge deck has fallen into disrepair.

66

A beautiful site, especially good for viewing migrating/ wintering waterfowl. Unfortunately, it's only accessible either by boat or by crossing the railroad tracks at grade level... "

-Survey Respondent

RECOMMENDATIONS

Rehabilitate and reopen one or both of the two structures as a bicycle and pedestrian bridge to restore access to the river. Include the bridges in a corridor wide bridge repair contract.

PUBLIC INPUT

36 respondents **already use this site,** and

16

respondents would like to use this site

The most desired amenities for this site are:



100% would like to use this site for trails and scenic views

75% would like to use this site for birding and recreation



WILDERSTEIN ESTATE

CROSSING TYPE



EXISTING AMENITIES



SIZE

1.5 acres

OWNERSHIP

Private

CROSSING CHARACTERISTICS

There is no crossing infrastructure at this location.

EXISTING USE & FACILITIES ON SITE

This is the former site of the dock for the Wilderstein Estate. The property is a privately owned historic site. Many have noted its significance as a birding and eagle observation site. The ability to monitor and inspect the Hudson River estuary for conditions within this vicinity was also noted.

66

This is an essential spot for birding and observing eagle activity"

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

21 respondents already use this site, and

24 respondents would like to use this site

The most desired amenities for this site are:

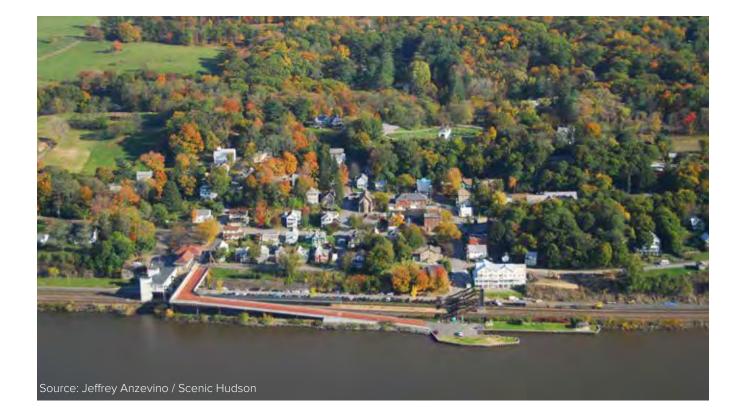


100% would like to use this site for trails

75% would like to use this site for recreation and views

Provide the historic site with adequate access across the tracks. Add signage as necessary.

Rhinebeck



RHINECLIFF LANDING

CROSSING TYPE



EXISTING AMENITIES



SIZE

0.5 Acres

OWNERSHIP Town of Rhinebeck

CROSSING CHARACTERISTICS

Two above-grade crossings are available to access Rhinecliff Landing, which is a public park. One is a street bridge at the Rhinecliff Amtrak station, and the other is a pedestrian bridge crossing at the south end of the station boarding platform.

The site is a small riverside park with parking, benches, floating docks, and a boat launch. There is occasional ferry / water taxi service available to Kingston from this site. The park is also a designated Hudson River Valley Greenway Water Trail site.

Amtrak has proposed a locked gate at the south end of the Rhinecliff Station parking lot.

66

It's a beautiful place to visit, watch the birds and the boats, and to walk my dog"

-Survey Respondent

RECOMMENDATIONS

Maintain existing crossings.

PUBLIC INPUT

89 respondents already use this site, and

12

respondents would like to use this site

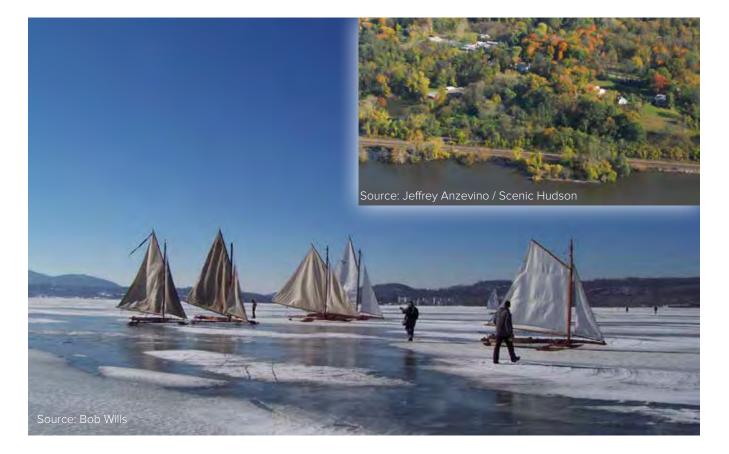
The most desired amenities for this site are:



89% would like to use this site for scenic views

84% would like to use this site for **recreation**

Access Sites - Dutchess Co



SLATE DOCK

CROSSING TYPE



EXISTING AMENITIES



SIZE

172.2 Acres

OWNERSHIP Private (Railroad)

CROSSING CHARACTERISTICS

The ROW of Slate Dock Road, to Route 85, appears to be owned by the railroad. There is no rail crossing infrastructure present.

EXISTING USE & FACILITIES ON SITE

Slate Dock Road provides access to the rail line north of the Kingston-Rhinecliff Amtrak station, as

well as to the town water treatment facility (east of the rail line). The area is heavily used for informal access to fishing along the river on undeveloped land on the west side of the rail line. Aerial photos show cars lined up on this property during the Spring "Striper" season.

Amtrak has proposed impasse fencing and a locked gate at this location.



66

This is a widely used location by many area residents for various activities and is one of the only spots near Rhinecliff where you can access the shoreline."

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

63 respondents already use this site, and

22 respondents would like to use this site

The most desired amenities for this site are:



90% would like to use this site for scenic views

80% would like to use this site for recreation

Upgrade informal crossing to a formal crossing with current signage and safety devices. Consistent with Rhinebeck LWRP Policy 1A, work with railroad to secure access across the tracks to Slate Dock. Rhinebeck



LONG DOCK

CROSSING TYPE



EXISTING AMENITIES



SIZE

~0.75 acres

OWNERSHIP Private

CROSSING CHARACTERISTICS

There is no crossing infrastructure present.

EXISTING USE & FACILITIES ON SITE

On the west side of the tracks, there is a rectangular 4000-square foot protrusion of a historic dock and an abandoned jetty. A gravel

maintenance road winds down the hill from the property above and terminates in what appears to be a staging ground for maintenance equipment.

66

As a volunteer for NYS DEC Fish & Wildlife, this is an important viewpoint for me and others to monitor bald eagles nests and sensitive environmental conditions in this area. "

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

27 respondents already use this site, and

10

respondents would like to use this site

The most desired amenities for this site are:



67% would like to

would like to use this site for scenic views, canoe/kayak access, and birding

33%

would like to use this site for **recreation and trails**

Consistent with Rhinebeck LWRP Policy 1A, work with the railroad to secure access to Long Dock.

Red Hook



POETS' WALK PARK

CROSSING TYPE



EXISTING AMENITIES



SIZE

120 acres

OWNERSHIP Scenic Hudson

CROSSING CHARACTERISTICS

A bridge is present over the railroad but is closed to public use.

Poets' Walk Park is a popular publicly accessible, Scenic Hudson park with hiking trails leading to river overlooks. At the river's edge, there is an historic steel truss bridge over the railroad that leads to the maintenance roadway along the tracks. The bridge is currently closed.

66

Beautiful site. Outstanding river views."

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

109 respondents already use this site, and

40

respondents would like to use this site

The most desired amenities for this site are:



80% would like to use this site for scenic views

60% would like to use this site for birding and trails

Rehabilitate the existing structure across the railroad tracks. Include the bridge in a corridorwide repair contract.



ASTOR POINT / ROKEBY

CROSSING TYPE



EXISTING AMENITIES



SIZE

4.2 Acres (river edge)

OWNERSHIP

Private

CROSSING CHARACTERISTICS

An existing bridge over the railroad provides the property owner access to Astor Point and the Hudson River.

Though this site is private, during good ice years the property owner has allowed access to the Hudson River Ice Yachting Club and local residents for ice boating.



66

I've used this site in 2014 during a "good ice year." The property owner was kind enough to invite the public here for ice boating. This bridge should not be lost!"

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

40 respondents already use this site, and

20 respondents would

like to use this site

The most desired amenities for this site are:



57%

would like to use this site for scenic views and canoe/kayak access

50% would like to use this site for birding and recreation

Maintain existing bridge over the railroad to Astor Point. Include the bridge in a corridor-wide bridge rehabilitation contract.

Red Hook



BARRYTOWN

CROSSING TYPE



EXISTING AMENITIES



SIZE

2 acres

OWNERSHIP

Private

CROSSING CHARACTERISTICS

Barrytown Road crosses the railroad on a small bridge and provides access to a few homes on Steamboat Dock Lane and on Dock Road to the Red Hook Boat Club. Station Hill Road deadends at the rail line with a small turnaround, and Dock Road on the other side of the tracks terminates in a cul-de-sac. There is a short metal barrier to demarcate what was likely an at-grade crossing that was removed. There is no crossing infrastructure present. Dock Street has a bridge over the railroad tracks.

EXISTING USE & FACILITIES ON SITE

The area is developed with what is mostly residential use on both sides of the rail line. The Red Hook Boat Club is located on the Hudson River at the end of Dock Road.

66

I would love to use it for a walking or parking destination to scenic views and observation of birds, wildlife, sky, and weather watching."

-Survey Respondent

RECOMMENDATIONS

Maintain existing bridge crossing at Dock Street.

PUBLIC INPUT

23 respondents already use this site, and

29 respondents would like to use this site

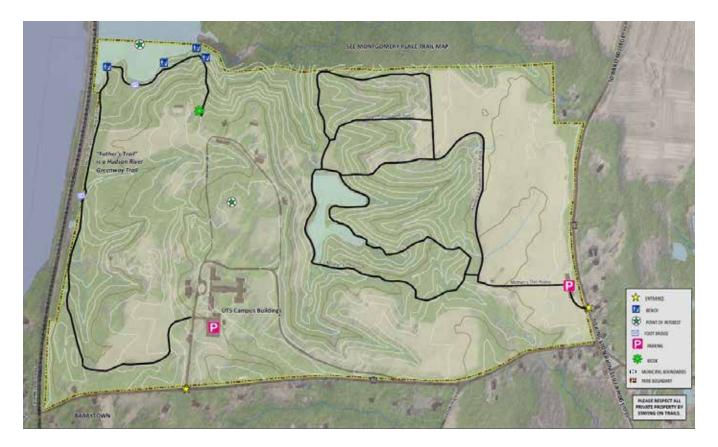
The most desired amenities for this site are:



89% would like to use this site for scenic views

78% would like to use this site for **recreation**

Red Hool



TRAPP CLIFF UNITARIAN THEOLOGICAL SEMINARY

CROSSING TYPE



EXISTING AMENITIES



SIZE 260 acres / ~ 12 acres (underwater lands)

OWNERSHIP Unification Theological Seminary CROSSING CHARACTERISTICS

There is no at-grade crossing present.

EXISTING USE & FACILITIES ON SITE The property owner allows public use of this site. The "Fathers Trail" is designated as a Hudson River Greenway Trail and provides access to the south end of South Bay.



66

Former ice yacht launch location to both the River and South Bay. Would love to again access this spot."

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

43 respondents **already use this site,** and

27 respondents would like to use this site

The most desired amenities for this site are:



63% would like to use this site for scenic views and recreation

50% would like to use this site for trails

Upgrade informal crossing to a formal crossing with current signage and safety devices. Site improvements are a low priority compared to other sites in this document. Future improvements should consider need and habitat conditions.

Red Hoo



ZABRISKIE'S WATERFALL - BARD COLLEGE FIELD STATION

CROSSING TYPE



EXISTING AMENITIES



SIZE 175 Acres

OWNERSHIP Bard College

CROSSING CHARACTERISTICS

There is no crossing at this location. The railroad is several hundred away from the edge of the river, in the waterway. This site can be accessed through the Bard College campus.

A feasibility study of trail rehabilitation at Bard College was recently conducted, aiming to improve universal accessibility, provide resiliency to rising water, and preserve the visual character and historical features of the trail, funded by the New York State Department of Environmental Conservation.

66

...This is an important viewpoint for me and others to monitor bald eagles nests, American eels, and sensitive environments in this area. I walk my dog here too."

-Survey Respondent

RECOMMENDATIONS

Maintain view shed and access.

PUBLIC INPUT

36 respondents already use this site, and

8

respondents would like to use this site

The most desired amenities for this site are:



67% would like to use this site for scenic views and trails

50% would like to use this site for birding Red Hool



TIVOLI BAYS

CROSSING TYPE



EXISTING AMENITIES



SIZE ~1000 Acres

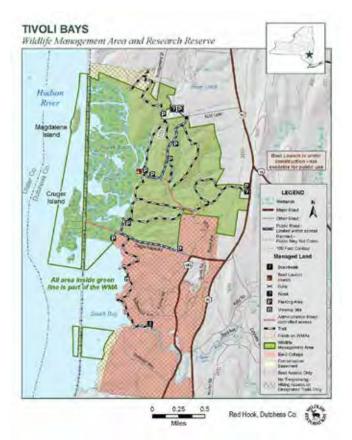
OWNERSHIP NYS DEC

CROSSING CHARACTERISTICS

There is no crossing infrastructure present.

EXISTING USE & FACILITIES ON SITE

Cruger Island is part of the larger Tivoli Bays National Estuarine Research Reserve, and included in New York State's Estuarine Sanctuary System. The Cruger Island Road hiking trail crosses the railroad tracks but no crossing infrastructure is present, as pictured to the left.



66

Wonderful mix of woods, trail, marsh"

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

145 respondents already use this site, and

48

respondents **would** like to use this site

The most desired amenities for this site are:



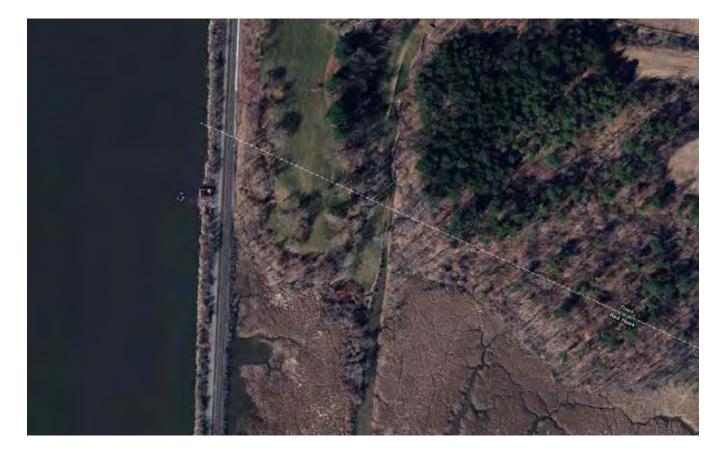
48%

would like to use this site for scenic views and canoe/kayak access

43%

would like to use this site for **trails and birding**

Upgrade informal crossing to a formal crossing with current signage and safety devices to provide access to Cruger Island. Site improvements are a low priority compared to other sites in this document. Future improvements shoud consider need and habitat conditions



SYCAMORE POINT

CROSSING TYPE



EXISTING AMENITIES



SIZE

0.1 acres

OWNERSHIP NYS DEC

CROSSING CHARACTERISTICS

There is no crossing infrastructure present.

EXISTING USE & FACILITIES ON SITE

Locals use this site informally to launch kayaks, observe birds and other wildlife, and walking

along the access road. There is a 0.1 acre parcel along the river's edge that is owned by NYS and contains reminents of a dock or some other historic structure.

66

...If i am not kayaking, I am down there shooting photos and birding."

-Survey Respondent

RECOMMENDATIONS

Create rail with trail along maintenance road from Tivoli Waterfront at foot of Diana Street.

PUBLIC INPUT

27 respondents already use this site, and

14

respondents would like to use this site

The most desired amenities for this site are:



100% would like to use this site for scenic views

75% would like to use this site for birding and canoe/kayak access



TIVOLI LANDING

CROSSING TYPE



EXISTING AMENITIES



SIZE

1 Acre

OWNERSHIP Village of Tivoli

CROSSING CHARACTERISTICS

At-grade track crossing with automatic crossing arms and warning lights in each direction is located on Diana Street.

This is an undeveloped waterfront municipal park on both sides of the railroad. The park is designated as a Hudson River Greenway Water Trail Site and people frequently use the legal, public grade crossing to launch kayaks and canoes. Others use this river access for fishing, picnicking, walking, or enjoying the view of the river and boats. The Village of Tivoli has plans to stabilize the shoreline and develop municipal park facilities at this site.

There are fewer than ten parking spaces currently available at the site. The land adjacent to the public parcel has been used by Amtrak as a construction staging area.

66

We bring our kids here to watch the river at different times of the year and picnic. It's an important spot for our village to gather. We've attended memorial services here and used it for boat access other times, as well. "

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

180 respondents **already use this site,** and

29 respondents would like to use this site

The most desired amenities for this site are:



78% would like to use this site for scenic views

63% would like to use this site for canoe/kayak access

Implement Village Municipal Park development plans. Maintain and update the existing atgrade crossing and maintenance access using modern technology. Revisit earlier agreements requiring grade separated crossing structure. Tivoli Village



TIVOLI - FISHING ACCESS

CROSSING TYPE



EXISTING AMENITIES



SIZE

Within railroad ROW OWNERSHIP Private (Railroad)

CROSSING CHARACTERISTICS

There is no crossing infrastructure present. This area is accessed via the at-grade crossing at Diana Street and the railroad maintenance road.

Fisherman often use the railroad maintenance road, either by walking or vehicle, to access points further north and south along the Hudson River, particularly this location near Broadway.

66

We go down here once or twice a week to enjoy the river and I know that many other people do too because there is almost always a least one or two groups of people at this location every time we come down."

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

39 respondents **already use this site,** and

14

respondents **would like to use this site**

The most desired amenities for this site are:



100%

would like to use this site for canoe/kayak access

67% would like to use this site for scenic views, recreation, and birding

Maintain existing crossing at Diana Street and access to points north and south along the river's edge.



CLERMONT STATE HISTORIC SITE

CROSSING TYPE



EXISTING AMENITIES



SIZE

500 acres

OWNERSHIP

NYS OPRHP

CROSSING CHARACTERISTICS

There is an asphalt apron across the tracks at the crossing site. No gates or warning lights are present. It is marked as a private crossing.

EXISTING USE & FACILITIES ON SITE

The crossing leads to a protrusion of land and remnants of Clermont Manor's historic boat dock, which is intact but under the water. A fence is intended to keep people from crossing the tracks. On August 17, 1807, the dock was the only stop Robert Fulton's steamboat North River made on its epic voyage to Albany. The purpose of stopping at Clermont was to pick up a most important passenger, Chancellor Robert Livingston, who was Fulton's partner and principal funder. They went on together to Albany. This historic voyage marked the commencement of steam navigation in the world. Recent estimates put dock restoration at \$1.5M- \$2M.



66

Great place to watch ice boats sailing when the river is frozen."

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

51 respondents already use this site, and

19

respondents would like to use this site

The most desired amenities for this site are:



100% would like to use this site for scenic views

67% would like to use this site for recreation

Re-establish an inviting path to the riverfront and install pedestrian gates at the existing railroad crossing at a later date. Restore the historic dock to provide future access to the site by tour boat.

Clermont



MIDWOOD ESTATE

CROSSING TYPE



EXISTING AMENITIES



SIZE

80 acres

OWNERSHIP

Private

CROSSING CHARACTERISTICS

An open single-lane truss bridge spans the rail line.

The property is privately owned, but the property owner invites environmental education groups from the City of Hudson to use it, park their kayaks in the boathouse, have picnics, and conduct environmental studies in the river. The owner would like to install flexible docks to facilitate this type of access.

66

I use this every day. All spring, summer, fall to kayak, and otherwise to walk, view sunset and just enjoy viewing the eagles that perch in this area."

-Survey Respondent

PUBLIC INPUT

33 respondents **already use this site,** and

30 respondents would

like to use this site

The most desired amenities for this site are:



100%

would like to use this site for recreation and scenic views

75% would like to use this site for birding and canoe/kayak access

RECOMMENDATIONS

Maintain existing bridge crossing as part of a corridor-wide bridge repair contract.



CHEVIOT PARK

CROSSING TYPE



EXISTING AMENITIES



SIZE

Over 1.4 Acres

OWNERSHIP Town of Germantown

CROSSING CHARACTERISTICS

Automatic crossing arms with warning lights in each direction. Cheviot Road dead-ends at the rail crossing, and becomes an access way for the municipal park.

This location is a municipal waterfront park and designated Hudson River Greenway Water Trail Site with a trailered boat launch, metal docks, picnic tables and parking. A lengthy gravel railroad maintenance road stretches north and south along the river.

Amtrak has proposed impasse fencing and a locked gate at this location.

RECOMMENDATIONS FROM LWRS (2018)

Repair/cover exposed rebar; Ensure speed limit/park regulations are enforced; Construct children's playground; Create riverwalk trail along the shore north to Ernest R. Lasher, Jr. Memorial Park.

66

I take my dog for walks there, wonderful views, a true experience of the changes of nature with the seasons, which adds such value to the life here. "

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

101 respondents **already use this site,** and

19 respondents **would**

like to use this site

The most desired amenities for this site are:



91% would like to use this site for scenic views

82% would like to use this site for recreation

Maintain existing crossing, create riverwalk trail to the north.

Germantowr



CHEVIOT TO ICE HOUSE LANDING

CROSSING TYPE



EXISTING AMENITIES



SIZE Railroad ROW

OWNERSHIP Private (Railroad)

CROSSING CHARACTERISTICS

Access to the maintenance road can be obtained via the at-grade crossing at Cheviot

Many local residents use the maintenance road to access various sites along the riverfront, including the abandoned ice house landing. At least three distinct locations were identified by the public for fishing, birding, and/or scenic views.

66

This important Hudson River access must remain open to the public and not turned into a private or limited access to land and water use.

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

46 respondents **already use this site,** and

16

respondents would like to use this site

The most desired amenities for this site are:

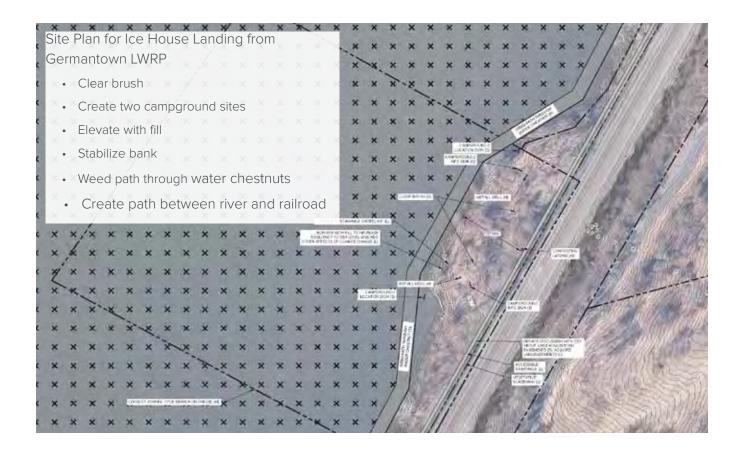


57% would like to use this site for scenic views

43% would like to use this site for fishing and trails

Maintain access to these fishing and water-related recreational sites along the river's edge.

Germantown



ICEHOUSE LANDING AND FISHING SITES

CROSSING TYPE



EXISTING AMENITIES



SIZE

18.7 Acres

OWNERSHIP Public (Town of Germantown)

CROSSING CHARACTERISTICS

There is no crossing infrastructure present.

EXISTING USE & FACILITIES ON SITE

According to the Germantown LWRS, Ice House Landing is believed to have once been the site of the Cheviot Ice House. The approximately oneacre site is located west of the railroad just north of Cheviot Park. Until recently this was railroad property, now through advocacy by Riverkeeper and former Supervisor Liepshulz the site is owned by the Town of Germantown. Ice House Landing is currently overgrown and accessible only by water or by walking or driving down the railroad maintenance road. Although not a designated park, the site is used as a picnic area, for fishing and as a campsite by kayakers, boaters and others.

RECOMMENDATIONS FROM LWRP (2018)

Create a riverwalk trail connecting Cheviot Park and Ernest R. Lasher, Jr. Park and designate the parcel as an official Hudson River Greenway Water Trail site.

66

This is one of the very few sites in the area where you can land a kayak or canoe and not be in a parking lot. It's precious. And as others have said, it's the historic site of an old ice house.

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

68 respondents already use this site, and

30 respondents would like to use this site

The most desired amenities for this site are:



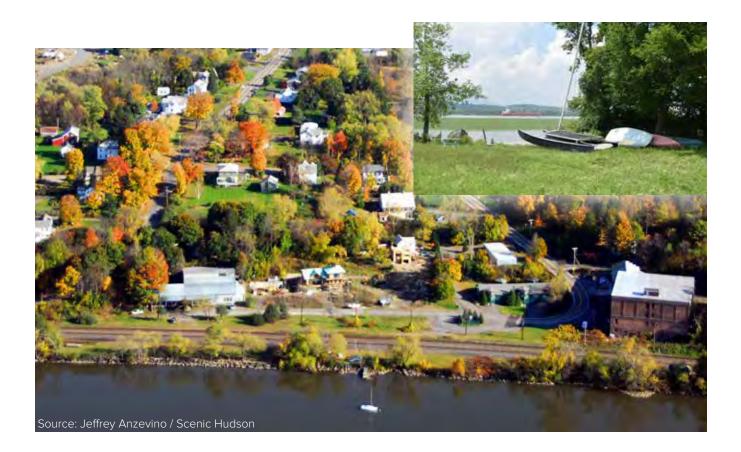
86%

would like to use this site for **birding and scenic views**

71% would like to use this site for **recreation**

Maintain access to the river's edge for fishing, walking, and recreation.

Germantown



GERMANTOWN - LOWER MAIN STREET

CROSSING TYPE



EXISTING AMENITIES



SIZE Railroad ROW

OWNERSHIP Private (Railroad)

CROSSING CHARACTERISTICS

There is no crossing infrastructure present.

EXISTING USE & FACILITIES ON SITE

Germantown's Main Street terminates in a cul-desac near the rail line. Extending north from Main Street is a shared driveway. The riverfront area is used by nearby residents for boating, fishing, nature appreciation and picnicking. Currently there are no barriers or fencing prohibiting people from accessing the riverfront, along which are several docks and boats beached on the shore.

RECOMMENDATIONS FROM LWRS (2018)

Define property boundaries and acquire land from CSX; Construct a riverwalk; provide parking; Connect hamlet to the riverfront with sidewalks.



66

Favorite spot to bring my grandson to watch the train go by."

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

197 respondents **already use this site,** and

79 respondents would like to use this site

The most desired amenities for this site are:



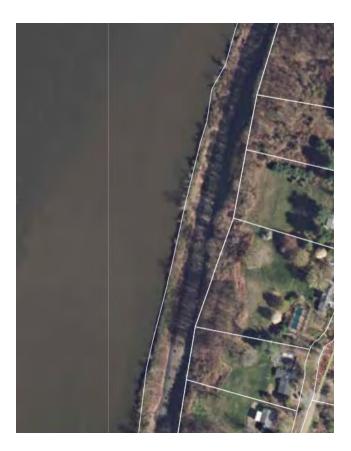
100% would like to use this site for scenic views

74% would like to use this site for recreation

Create a riverfront park with connections to Cheviot Park and Ernest R. Lasher Park. Maintain existing access to the riverfront, but reduce risk with a more practical, state-of-the-art at-grade pedestrian crossing with appropriate signage and safety devices.

Germantown





GERMANTOWN: NORTH OF MAIN STREET

CROSSING TYPE



EXISTING AMENITIES



SIZE Railroad ROW

OWNERSHIP Private (Railroad)

CROSSING CHARACTERISTICS

There is no crossing available. Access can be obtained by using the maintenance road or from the river.

People identified twelve individual sites that are popular places for fishing, nature appreciation or other recreation areas throughout this one (1) mile stretch of riverfront.

66

Please don't take my spot away that my family has used for many years." –Survey Respondent

PUBLIC INPUT

188 respondents **already use this site,** and

133 respondents would like to use this site

The most desired amenities for this site are:



87% would like to use this site for scenic views

73% would like to use this site for birding

RECOMMENDATIONS

Maintain access to the river's edge along the maintenance road for fishing, walking, and recreation. Create riverwalk trail connecting Cheviot Park and Ernest R. Lasher, Jr. Memorial Park.



GERMANTOWN - SOUTH OF ERNEST R. LASHER JR. MEMORIAL PARK

CROSSING TYPE



EXISTING AMENITIES



SIZE

Railroad ROW

OWNERSHIP

Private (Railroad)

CROSSING CHARACTERISTICS

There is no crossing infrastructure present.

EXISTING USE & FACILITIES ON SITE

People identified four individual sites for fishing, nature appreciation or recreation throughout this half mile stretch of river. This section is often accessed by using the maintenance road, traveling south from Ernest R. Lasher, Jr. Memorial Park.



66

I think truly the best view of the Catskills in the whole stretch of the Hudson is right here.

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

63 respondents already use this site, and

51

respondents would like to use this site

The most desired amenities for this site are:



70% would like to use this site for scenic views

50% would like to use this site for trails, birding, and recreation

Maintain access to the river's edge for fishing, walking, and recreation.

Germantown



ERNEST R. LASHER, JR. MEMORIAL PARK

CROSSING TYPE



EXISTING AMENITIES



SIZE

10 Acres

OWNERSHIP Public (Town of Germantown)/Private

CROSSING CHARACTERISTICS

Automatic crossing arms with warning lights in each direction.

EXISTING USE & FACILITIES ON SITE

There is an existing public boat launch, picnic tables, and parking facilities at this Hudson River Greenway Water Trail site. Once called "The

Anchorage," it was an early steamboat dock and served as the Half Moon Anchorage Recreation Center hosting social gatherings in the 19th century. The site also included a sea plane facility visited by Eleanor Roosevelt.

RECOMMENDATIONS FROM LWRS (2018)

Mitigate further erosion of the shoreline; Minor park maintenance; Construct osprey platform; Study traffic and provide additional parking; Create a greenbelt around the park; Provide canoe and kayak storage and rental; Provide public restrooms; Construct a fishing pier.



66

This is an important source of enjoyment and quality of life for my friends and family."

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

157 respondents already use this site, and

34 respondents would like to use this site

The most desired amenities for this site are:



76% would like to use this site for scenic views

70% would like to use this site for **recreation**

Maintain existing at-grade crossing. Create a riverwalk trail connecting Cheviot Park and Ernest R. Lasher, Jr. Park.

Greenpor



GREENDALE ROAD

CROSSING TYPE



EXISTING AMENITIES



SIZE

Unknown

OWNERSHIP

Private

CROSSING CHARACTERISTICS

There is a low rail bridge crossing over the tidal stream.

EXISTING USE & FACILITIES ON SITE

The site appears to connect to adjacent farmland via a maintenance road that terminates at the rail line. There is space for parking vehicles along the rail line, and a maintenance road along the tracks connects to the farm road at this site.



66

Many persons fish for stripers at this location. For those not fortunate to have a boat, this is an ideal place to fish."

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

22 respondents already use this site, and



respondents **would** like to use this site

The most desired amenities for this site are:





75% would like to use this site for scenic views

50% would like to use this site for recreation, birding, and canoe/ kayak access

Maintain existing crossing over tidal stream to allow access under the bridge.

Greenport



ROGERS ISLAND SOUTH / ROGERS ISLAND NORTH

CROSSING TYPE



EXISTING AMENITIES



SIZE 210 acres / 6 Acres (adjacent to railroad)

OWNERSHIP

New York State / Private

CROSSING CHARACTERISTICS

This crossing site and the site immediately north allow for access to Rogers Island Wildlife Management Area. The crossing is signed as private, with stop signs, crossbucks and a paved apron to allow vehicle access. There are no crossing arms or lights present.

The crossing site abuts private property, though it is unclear if the site is on a private or state parcel. It is presumed the crossing affords small boat access to Rogers Island, which is owned by the State of New York. There is no crossing available from the mainland to the island.

66

I would love to know how to access this part of the river and know more about Rogers Island..."

-Survey Respondent

RECOMMENDATIONS

Maintain/upgrade existing crossing. Research land ownership issue to develop a more public friendly trail access. Site improvements are a low priority compared to other sites in this document. Future improvements should consider need and habitat conditions.

PUBLIC INPUT

30 respondents **already use this site,** and

57

respondents would like to use this site

The most desired amenities for this site are:

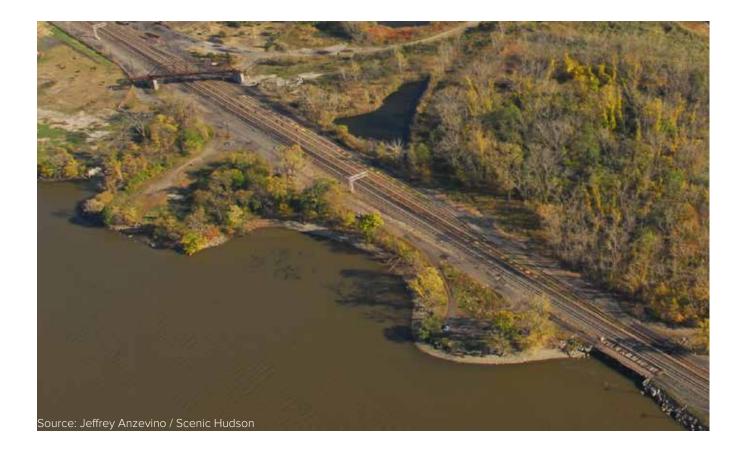


67%

would like to use this site for **birding**

58%

would like to use this site for scenic views and canoe/kayak access Hudson



HUDSON - SOUTHERN WATERFRONT

CROSSING TYPE



EXISTING AMENITIES



SIZE

<1 Acre

OWNERSHIP

City of Hudson

CROSSING CHARACTERISTICS

There is no crossing infrastructure present. Site access is via the Broad Street at-grade crossing approximately 0.4 miles northeast of the site and travel along the maintenance road.

This site is well used as an informal public park. The river banks provide access to the water for fishing sites. The point of land is more or less directly across the river from the Hudson-Athens Lighthouse, and provides a good view of the structure and a long view up the river to Middle Ground Flats. The City of Hudson is considering improvements at and adjacent to this area as part of their DRI (Downtown Revitalization Initiative.

66

This is a lovely spot along the riverfront beyond the industrial area/gravel company needs and would be a wonderful point at which the public can access the river."

-Survey Respondent

RECOMMENDATIONS

Maintain existing crossing and formalize public access along the maintenance road to the south to the City-owned waterfront parcel across from the lighthouse, as identified above.

PUBLIC INPUT

80 respondents already use this site, and

19 respondents would

like to use this site

The most desired amenities for this site are:



68% would like to use this site for recreation

63% would like to use this site for fishing



Hudson



HENRY HUDSON PARK & HUDSON RIVER PUBLIC BOAT LAUNCH



EXISTING AMENITIES



SIZE Over 2 acres

OWNERSHIP Public / State

CROSSING CHARACTERISTICS

The site is served by both the Ferry Street overpass and Broad Street at-grade crossing, which features crossing arms and signals. The Ferry Street bridge is currently closed but there are plans to re-open the bridge in the near term.

Henry Hudson Riverfront Park, a Hudson River Valley Greenway Water Trail Site includes a fixed pier, floating docks, parking, gazebo, and other park amenities. The Hudson River Public Boat Launch provides parking and launch for trailered boats. A private boat club lies between these two public facilities.

PROPOSED IMPROVEMENTS FROM OTHER STUDIES

The Boat Launch at Hudson is a full service boat launch managed by New York State. The City has funding to replace / restore bridge over the tracks. NYSOPRHP maintains the wall, and they believe that the boat club installed the fence. Parks will be coordinating with the City of Hudson to try to reduce fencing as part of the DRI project.

66

This is the best raw river front point in the City of Hudson. It's safe easy access by foot, bike or car. You can see birds, watch the tide come up and down, no obstruction of view, but it's the only one in Hudson and its really just a small parking lot!"

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

101 respondents **already use this site,** and

48

respondents would like to use this site

The most desired amenities for this site are:

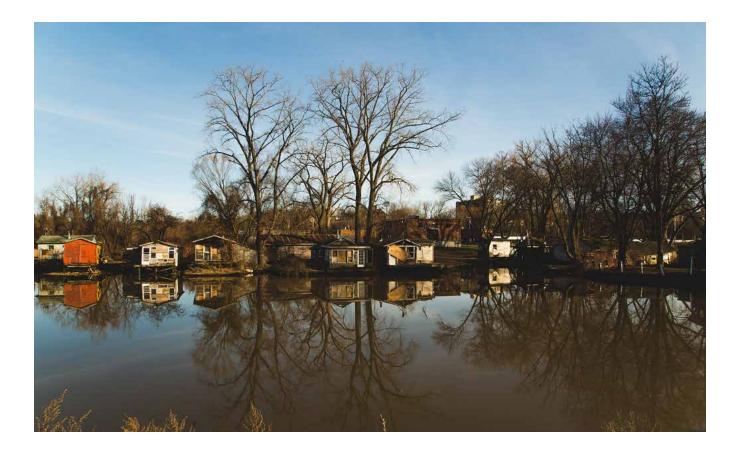


85% would like to use this site for

80% would like to use this site for

canoe/kayak access

Upgrades to the Park, and restoration of the Ferry Street steel truss bridge is under design in 2020. Remove chain link fencing along the bulkhead for river views. Bridge could be part of a corridor wide bridge repair contract. Support all efforts to upgrade the park and access options. Hudson



FURGARY FISHING VILLAGE

CROSSING TYPE



EXISTING AMENITIES



SIZE 1 acre

OWNERSHIP City of Hudson

CROSSING CHARACTERISTICS

There is no crossing at this location

The small fishing village has 17 shacks remaining of the many that were used over the last century. Fishermen and hunters called these home while they fished and hunted in the bays and surrounding areas. The village was going to be torn down by the City when New York State stepped in to maintain this link to the river.

66

I use this area on an almost daily basis in good weather. It creates a safe and valuable entrance to the bay and especially the Hudson River"

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

21 respondents already use this site, and

19

respondents **would like to use this site**

The most desired amenities for this site are:



89%

would like to use this site for scenic views and canoe/kayak access

67% would like to use this site for

birding and recreation

Preserve this historical resource as a historic site paying tribute to the Hudson River fishermen and their families who resided there. Re-open access to the Hudson River for fishing and recreation in this area. Access Sites - Columbia Co

Greenport/Stockpo



PRIMING HOOK

CROSSING TYPE



EXISTING AMENITIES



SIZE >70 acres

OWNERSHIP NYSDEC

CROSSING CHARACTERISTICS There is no existing crossing.

Priming Hook lies at the southernmost end of the Stockport Flats National Estuarine Research Reserve. It is one component of extensive upland bluffs, dredge spoils and wetlands between the railroad and the river south of the mouth of Stockport Creek.

66

This is a really cool area huge publicly-owned piece of nature, right on the water. but it needs trail access - right now you have to bushwack a quarter mile to get there."

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

58 respondents already use this site, and

44

respondents would like to use this site

The most desired amenities for this site are:



92% would like to use this site for scenic views

83% would like to use this site for recreation

Establish a defined track crossing and access trail(s). Site improvements are a low priority compared to other sites in this document. Future improvements should consider need and habitat conditions.



Stockpor



STOCKPORT CREEK

CROSSING TYPE



EXISTING AMENITIES



SIZE

5 Acres

OWNERSHIP NYS DEC

CROSSING CHARACTERISTICS

There is no railroad crossing at this location.

A large parking lot is available with wood fencing around it to provide separation between the parking area and railroad. To the north, picnic tables, a gazebo, and information panel are present in a small park. To the south, at the mouth of the Stockport Creek, there is a Hudson River Greenway Water Trail access site. Kayakers can access the Hudson River by going underneath the railroad bridge just south of the site.

Amtrak has proposed impasse fencing and a locked gate at this location.



66

I use this site to kayak in the creek and in the marsh."

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

34 respondents **already use this site,** and

29 respondents **would like to use this site**

The most desired amenities for this site are:



82% would like to use this site for scenic views

73% would like to use this site for canoe/kayak access

Maintain the existing park and access to the bay. Maintain the ability for kayakers and canoers to travel under the bridge for access to the Hudson River. Fencing or barriers intended to keep people away from the tracks should be low key and fit the context of this park.



CHARLES A FLOOD WILDLIFE MANAGEMENT AREA AT THE EMPIRE BRICKYARD

CROSSING TYPE

EXISTING AMENITIES



SIZE 591 Acres

OWNERSHIP

NYS DEC

CROSSING CHARACTERISTICS

There is no crossing infrastructure present.

EXISTING USE & FACILITIES ON SITE

This is an existing Wildlife Management Area (WMA), and a portion of it is within the Stockport Flats component of the Hudson River National Estuarine Research Reserve (HRNERR). It contains a trail system. Portions of the adjoining bay and brickyard ruins are privately owned.

Access to the Wildlife Management Area can be found on Route 9J and Alvord's Dock Road. There are two points along the Hudson River within the site: Judson Point and Gay's Point. Currently, the only parking area trailhead is on Alvord's Dock.

Directly across from this site is the Stockport Middle Ground (an island), which is part of the Hudson River Islands State Park. The island is only accessible by boat.

66

I thought it was a secret, magic place. I still do. Now I get to take my grandkids to enjoy the magic and share such meaningful personal history."

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

29 respondents already use this site, and

55 respondents would like to use this site

The most desired amenities for this site are:



89% would like to use this site for scenic views

78% would like to use this site for birding

Consider installing an at-grade pedestrian crossing to provide access to the riverfront. Site improvements are a low priority compared to other sites in this document. Future improvements should consider need and habitat conditions.





NUTTEN HOOK - FERRY ROAD/ICE HOUSE RD

CROSSING TYPE



EXISTING AMENITIES



SIZE

94 Acres

OWNERSHIP Public (NYS DEC) / Private

CROSSING CHARACTERISTICS

There are two at-grade railroad crossings to access the 94 acres of land along the river. The south crossing is served by Ferry Road and features recently upgraded automated gates and warning lights in each direction. The northern end is served by a single-lane at-grade crossing without gates or lights.

The Nutten Hook Unique Area, owned by NYS DEC, is part of the larger Stockport Flats National Estuarine Research Reserve area. The Nutten Hook area includes two access points to the River. At the southern point, on Ferry Road, there's a parking area, access to hiking trails, kayak launch, and swimming allowed. The northern point, on Ice House Road, provides parking, a pavilion, swimming, kayak launch for the Hudson River Valley Greenway Water Trail, hiking trails, and access to the historic Ice House. It is part of the Stockport Creek and Flats Significant Coastal Fish & Wildlife Habitat. Recent improvements have been made to this site.

66

Only location on this side of river where you can drive, park and view the river both north and south from one location. Important History!

-Survey Respondent

66

Great location for family or community events, often used for educational purposes.

-Survey Respondent

RECOMMENDATIONS

Maintain existing railroad crossing.

PUBLIC INPUT

36 respondents **already use this site,** and

26 respondents would like to use this site

The most desired amenities for this site are:



100% would like to use this site for scenic views

88% would like to use this site for trails Access Sites - Columbia Co

Stuyvesant



SEE PARK / STUYVESANT LANDING

CROSSING TYPE



EXISTING AMENITIES



SIZE

4.3 Acres

OWNERSHIP Public (Town of Stuyvesant)

CROSSING CHARACTERISTICS

The crossing allows for access to the riverfront from Route 26A (Riverview Street). This is an atgrade crossing with automatic crossing arms and warning lights.

EXISTING USE & FACILITIES ON SITE

See Park is a small municipal park and designated Hudson River Greenway Water Trail site with a kayak launch, boat launch, picnic tables and parking. The boat launch, important for fire department operations, is the only trailered boat launch between Schodack Island and Hudson, a distance of about 16 miles. The park is also an important location for fishing. The historic Stuyvesant Landing Depot, adjacent to the park, is currently being restored. Amtrak proposes impasse fencing and locked gates at this location.



66

I cannot imagine not having access to this beautiful shoreline. It's one of the reasons we chose to live here. It keeps me closer to nature."

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

79 respondents **already use this site,** and

36 respondents would like to use this site

The most desired amenities for this site are:



89% would like to use this site for scenic views

68% would like to use this site for

trails and recreation

Maintain existing crossing. In lieu of Amtrak's proposed impasse fencing, install lower wood guiderail fencing to direct people to the protected, at-grade crossing.

Access Sites - Columbia Co

Stuyvesant



STUYVESANT LIGHT / LEWIS A. SWYER PRESERVE

CROSSING TYPE



EXISTING AMENITIES



SIZE

>500 acres

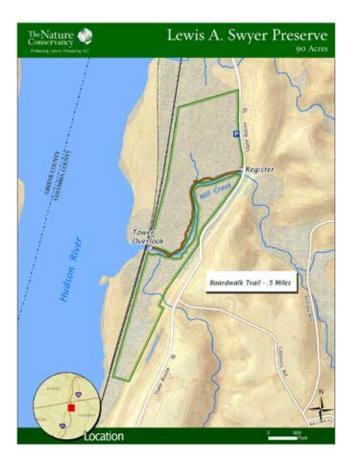
OWNERSHIP The Nature Conservancy / Private (Railroad)

CROSSING CHARACTERISTICS

There is no crossing infrastructure present.

EXISTING USE & FACILITIES ON SITE

The Lewis A. Swyer Preserve includes a boardwalk along the Mill Creek. The path stops short of the railroad and the Hudson River. Directly south of the site and across Mill Creek is the former site of the Stuyvesant Light on the Hudson River.



66

Swyer Preserve, with boardwalk along Mill Creek through swamp to overlook tower."

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

5 respondents already use this site, and

21 respondents would like to use this site

The most desired amenities for this site are:



100%

would like to use this site for **scenic views, birding, and trails**

50% would like to use this site for recreation and parking

Assess possibility of future at-grade pedestrian crossing to the shoreline. Site improvements are a low priority compared to other sites in this document. Future improvements should consider need and habitat conditions.



HOOK BOAT CLUB

CROSSING TYPE



EXISTING AMENITIES



SIZE

40 Acres

OWNERSHIP

Private

CROSSING CHARACTERISTICS

The site is served by an at-grade rail crossing that has no signal lights or crossing gates, only signs denoting "RR Xing" and "High Speed Trains." The road beyond the crossing is a dirt road, posted and blocked by a gate.

The site contains a private boat club. Much of the rest of the area appears to be mixed wooded and marshland vegetation. Approximately 14 acres of this site are classified as wetlands.



66

Private boat club"

-Survey Respondent

RECOMMENDATIONS

Maintain existing crossing.

PUBLIC INPUT

2 respondents already use this site, and

13

respondents would like to use this site

The most desired amenities for this site are:



50% would like to use this site for scenic views, recreation, birding, trails, and boat access



SCHODACK LANDING SOUTH

CROSSING TYPE



EXISTING AMENITIES



SIZE Part of Railroad ROW

OWNERSHIP Private (Railroad)

CROSSING CHARACTERISTICS

There is no crossing infrastructure present. Signs warning of "Private Property-No Trespassing" are posted at the site.

The narrow area of land on the west side of the rail line at the terminus of Perry Way in the village of Schodack Landing appears to be used frequently for water related recreation. There are boats stored on the land between the riverbank and the rail line; it is presumed the area is used for launching small boats and fishing.



66

This is also an access point for locals who fish."

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

7 respondents **already** use this site, and

24

respondents would like to use this site

The most desired amenities for this site are:



100% would like to use this site for birding and scenic views

67% would like to use this site for trails and recreation

Create a defined track crossing for river access. Site improvements are a low priority compared to other sites in this document. Future improvements should consider need and habitat conditions.



SCHODACK LANDING NORTH

CROSSING TYPE



EXISTING AMENITIES



SIZE Part of Railroad ROW

OWNERSHIP Private (Railroad)

CROSSING CHARACTERISTICS

There is no crossing infrastructure present. Signs warning of "Private Property-No Trespassing" are posted at the site. The site is at the end of a short gravel driveway connecting to NYS Route 9J.

The site appears to provide access to rail infrastructure for maintenance. There is a wooded strip of land on the west side of the rail line that could allow for river access. **PUBLIC INPUT**

4 respondents already use this site, and

16

respondents would like to use this site

RECOMMENDATIONS

Create a defined track crossing for river access. Site improvements are a low priority compared to other sites in this document. Future improvements should consider need and habitat conditions.



SCHODACK ISLAND STATE PARK

CROSSING TYPE



EXISTING AMENITIES



SIZE 1052 Acres

OWNERSHIP

NYS OPRHP

CROSSING CHARACTERISTICS

A bridge was constructed in 2004 over the railroad to provide access to the state park.

EXISTING USE & FACILITIES ON SITE

This large state park includes a full array of amenities, including a trailered boat launch, hiking

trails, picnic areas, playgrounds, sports fields, restrooms and over 60 campsites. The park also hosts two Hudson River Greenway Water Trail sites—one on the Hudson River and another on Schodack Creek. A portion of the park is designated as a Bird Conservation Area (BCA) that is home to many species of birds, including bald eagles, cerulean warblers and blue herons that nest in the cottonwood trees.

66

A beautiful island park along the river! I'm there nearly everyday and enjoy it very much. Great hiking trails, kayak and boat launches and wildlife observatory. Very scenic and peaceful."

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

35 respondents already use this site, and

8

respondents would like to use this site

The most desired amenities for this site are:



89% would like to use this site for trails

78% would like to use this site for scenic views and recreation

Maintain the existing vehicular bridge that provides access to the park.

Castleton-On-Hudso



CASTLETON-ON-HUDSON BOAT CLUB

CROSSING TYPE



EXISTING AMENITIES



SIZE

<1 Acre

OWNERSHIP Village of Castleton-on-Hudson

CROSSING CHARACTERISTICS

At-grade crossing with warning lights and crossing arms is present. Space is limited around the crossing given the frequency of vehicles with boats and trailers using the crossing.

This is an existing private boat club/marina with a boat launch and slips available for members and transient boaters. There is a clubhouse on site, racks for kayaks, and electric hook up at the slips.

66

Member of the Castleton Boat Club for more than 15 years. We boat on the river from NYC all the way up to Lake Champlain and points in between. Safe and user friendly access to the Hudson River is important for recreation, conservation, and safety.

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

9 respondents already use this site, and

17

respondents would like to use this site

The most desired amenities for this site are:



88% would like to use this site for boat access

76% would like to use this site for canoe/kayak access and parking

Maintain existing crossing, and couple signalization with municipal park immediately to the north.



CASTLETON-ON-HUDSON VILLAGE WATERFRONT PARK

CROSSING TYPE



EXISTING AMENITIES



SIZE

<1 Acre

OWNERSHIP

Village of Castleton-on-Hudson

CROSSING CHARACTERISTICS

At-grade crossing with warning lights and crossing arms has been blocked for about 25 years by imposing fencing and a locked gate. To the north side of the locked gate a small gap in the fencing provides an opportunity for people to cross. The signal times are short, with the train crossing just eight seconds after the crossing arms lower and 15 seconds after the warning lights flash.

This is an undeveloped village waterfront municipal park with no public river access. Immediately adjacent to the park on River Road (Route 9J) is the Village's business district, which is in desperate need of revitalization.

RECOMMENDATIONS FROM RENSSELAER COUNTY HUDSON RIVER ACCESS PLAN (2018).

"This is a high-priority municipal park development location. Once the accessibility issue has been resolved, which is a major issue, redevelopment of the site should be a quick and somewhat easy undertaking as the Village is leading the effort, is the project champion, and the site is mostly paved - minimizing natural features and environmental concerns."

66

This location would add immeasurable value in terms of public access to the river and utilization of this resource. Access would truly help to revitalize the historic village as well.

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

22 respondents already use this site, and

171 respondents would like to use this site

The most desired amenities for this site are:



78% would like to use this site for scenic views

76% would like to use this site for **recreation**

Remove the fence and replace it with a state-of-the-art vehicular or pedestrian gate; improve the park and open it to the public; Improve current safety features by extending advance signaling from 15 to 80 seconds. (See page 19-20 for additional context and recommendations).

Schodack



CAMPBELL ISLAND

CROSSING TYPE



EXISTING AMENITIES



SIZE Over 80 Acres

OWNERSHIP

NYS OGS / Private

CROSSING CHARACTERISTICS

A direct, at-grade crossing to this site has been removed. A bridge over Papscanee Creek has also been removed, but its girders and bulkheads are still in place. The surviving framework is currently used for informal access to the site.

EXISTING USE & FACILITIES ON SITE

At Campbell's Island, the riverside is primarily flat, sandy woodlands. Much of the shoreline is bulkheaded with a low, sloping concrete structure that offers easy walking and open views along the river. This is a scenic and relatively undeveloped section of the river, from which the Albany skyline is visible to the north. Along the Papscanee, there are extensive wetlands. The dead-end road access is used as parking and fishing access to the Papscanee Creek. This site is part of the Papscanee Marsh and Creek Significant Coastal Fish and Wildlife Habitat.

RECOMMENDATIONS FROM RENSSELAER COUNTY HUDSON RIVER ACCESS PLAN (2018)

There is a long history of efforts at this location to gain access to the southern portion of the peninsula. Members of the Rensselaer Land Trust have been in contact with the property owner of the southern-most section of the peninsula and with New York State (which owns another parcel) to discuss potential options and opportunities for development. Development of this site should include public access given its location and natural features. A phased site plan has been rafted by one property owner. While planning for this site is complicated by a complex set of land ownerships, efforts should continue with the landowners to open this site to the public."

66...need at least seasonal limited road access to allow basic enjoyment of this beautiful waterfront that's been cut off for too long..." –Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

13 respondents **already use this site,** and

52 respondents would like to use this site

The most desired amenities for this site are:



88% would like to use this site for scenic views and trails

81% would like to use this site for recreation

Work with public/private land owners to restore access and provide a permanent rail crossing.

Schodack/East Greenbus



STAATS POINT / PAPSCANEE ISLAND NATURE PRESERVE SOUTH / NORTH

CROSSING TYPE



EXISTING AMENITIES



SIZE

>80 Acres

OWNERSHIP

Public/Private

CROSSING CHARACTERISTICS

The at-grade crossing at Staats Island Road features crossing arms and warning lights in each direction. The Papscanee Island Nature Preserve is also accessible from the north at the end of American Oil Road.

This is a scenic, forested, and relatively undeveloped section of the river. The dead-end road is used been used informally in the past for parking and fishing access to the Papscanee Creek.

RECOMMENDATIONS FROM RENSSELAER COUNTY HUDSON RIVER ACCESS PLAN (2018)

"The site would benefit from the development of more loop trails, educational & wayfinding signage, riverfront access, and the placement of natural benches (using downed-trees on-site to make a bench) at key locations, particularly along the riverfront. The Town of Schodack, Rensselaer County and Open Space Institute, in cooperation with the Papscanee Tribe, should cooperatively develop a plan for undertaking future improvements and maintenance."

66

An amazing place for gatherings and appreciation for residents of natural beauty in hometown

-Survey Respondent

RECOMMENDATIONS

PUBLIC INPUT

12 respondents already use this site, and

26 respondents would like to use this site

The most desired amenities for this site are:



80% would like to use this site for

trails and recreation

60% would like to use this site for scenic views and birding

Maintain existing crossing and provide access to the south to Campbell Island.

Rensselae



TURNING BASIN OVERLOOK

CROSSING TYPE



EXISTING AMENITIES



SIZE

<1 Acre

OWNERSHIP

City of Rensselaer

CROSSING CHARACTERISTICS

Access is via bridge crossing along Irwin Stewart Port Expressway or from the City of Rensselaer.

EXISTING USE & FACILITIES ON SITE

The site is a small cleared and paved area with a path branching from the Irwin Stewart Port road.

The small park provides views of the watercraft turning basin and the Albany riverfront.

RECOMMENDATIONS FROM RENSSELAER COUNTY HUDSON RIVER ACCESS PLAN (2018)

"Select vegetation trimming would open-up views to the riverfront which could potentially increase desirability of utilizing the site without necessarily degrading the vegetative "buffer" along the rivers edge."

66

This is the former turning basin and the perfect location for river access for the public now owned by the town yet not open to the public. It's time to open this up without delay even if you have to drive through the port as the Turner crossing is closed."

-Survey Respondent

RECOMMENDATIONS

Maintain or improve existing views by discrete vegetation trimming.

PUBLIC INPUT

2 respondents already use this site, and

11

respondents would like to use this site

The most desired amenities for this site are:



would like to use this site for scenic views, recreation, birding, trails, and parking

100%



CRAILO STATE HISTORIC SITE

CROSSING TYPE



EXISTING AMENITIES



SIZE

<1 Acre

OWNERSHIP Public (NYS OPRHP)

CROSSING CHARACTERISTICS

There is no single railroad crossing to access this site. Access is from the City of Rensselaer.

The site is an historic and tourism destination. There is no formal waterfront access; however, the site provides views of the views of the Hudson River and Albany skyline.

RECOMMENDATIONS FROM RENSSELAER COUNTY HUDSON RIVER ACCESS PLAN (2018)

"The development of water-based access through a dock or non-powerboat landing area for small craft would provide additional access opportunities and visitor potential for the site. Additionally, developing an ADA accessible pathway to the waterfront/stone retaining wall, if feasible with the slope, from the road and an associated passive sitting area would increase access opportunities to the River at this site."

PUBLIC INPUT

2 respondents already use this site, and

9 respondents would like to use this site

66

... I know many including me would use it if they knew it existed..."

-Survey Respondent

RECOMMENDATIONS

Maintain existing access and view shed.



DE LAET'S LANDING

CROSSING TYPE



EXISTING AMENITIES



SIZE

24 Acres

OWNERSHIP Public Easement / Private

CROSSING CHARACTERISTICS

Multiple railroad tracks between the CDTC Amtrak Train Station and the Amtrak maintenance yard are crossed by the Broadway bridge which also provides pedestrian and bicycle access. Entrance to De Laet's Landing is via Broadway.

The Hudson River Esplanade, pictured above, was recently constructed, providing public access to this portion of the Hudson River shoreline. A small dock may be constructed in the future.

RECOMMENDATIONS FROM THE RENSSELAER COUNTY HUDSON RIVER ACCESS PLAN (2018)

"As a private site currently under development, there are no physical recommendations for this site. However, discussions should be undertaken to assess the potential to put in dock space in the future which would provide additional access to the waterfront in this location."

66

This important Hudson River access must remain open to the public and not turned into a private or limited access to land and water use. Our river belongs to the people.

-Survey Respondent

RECOMMENDATIONS

Maintain this popular vista of the Albany skyline. Consider adding additional public parking spaces in the future.

PUBLIC INPUT

respondents **already** use this site, and

6

respondents would like to use this site

The most desired amenities for this site are:



100%

would like to use this site for scenic views, recreation, birding, trails, and canoe/kayak access

APPENDIX A: LETTERS OF SUPPORT

Congress of the United States Washington, DC 20515

March 6, 2020

Mr. Richard Anderson President and Chief Executive Officer National Railroad Passenger Corporation dba Amtrak 1 Massachusetts Avenue NW Washington, D.C. 20001

Dear Mr. Anderson:

We write to respectfully request that Amtrak hold off on submission of its Coastal Consistency Determination application to the New York State Department of State (NYSDOS). After review of Amtrak's *Five Year Infrastructure Asset Line Plan, Base (FY 2019)* + *Five Year Strategic Plan (FY 2020–2024)*, we request that Amtrak work collaboratively with the appropriate municipal, county, and state officials and relevant stakeholders. As this plan proposes the installation and/or upgrade of ROW and impasse fencing and gates along the Empire Corridor South, it is our hope that Amtrak will work with all relevant state and local representatives to effectively reduce safety risks without compromising the public's ability to access the Hudson River.

As you know, Amtrak's fence upgrade program is a result of Amtrak's stated desire to reduce trespassing and incidents involving pedestrians, motorists and trains. This is an important and essential objective, and we appreciate Amtrak's efforts to keep our communities as safe as possible. However, railroad development along both shores of the Hudson River has also created numerous barriers that may affect the public's ability to access the waterfront. While we acknowledge Amtrak's prioritization of public safety, we are deeply concerned that the potential for loss of access runs contrary to New York State's Coastal Program. We also understand that some are concerned Amtrak's proposed fence upgrade program may be in violation of New York State's Public Trust Doctrine. For instance, in Castleton-on-Hudson, a 25-year old temporary agreement has resulted in an imposing fence that prevents access to village-owned riverfront land intended to be a public park.

Additionally, we support cooperative efforts (such as Scenic Hudson's *Hudson River Shoreline Access Plan* being completed this Spring) initiated by municipalities and local organizations to preserve remaining access points to the river and to expand the number of sites available for the public to use the shore. In other parts of the nation, high-speed trains and at-grade pedestrian crossings do coexist using advanced technology without the need for grade separated overpasses.

It is our belief that through a renewed effort of partnership with stakeholders, public officials, and communities, a healthy balance of access and safety can be achieved.

Your consideration of this request, consistent with all laws, rules and agency policy, is appreciated. We ask that a response be provided to this request on or before March 20, 2020.

Sincerely,

Paul D. Tonko Member of Congress

Sean P. Maloney Member of Congress

Antonio R. Delgado Member of Congress

PRINTED ON RECYCLED PAPER



Rensselaer County Office of County Executive Steven F. McLaughlin Rensselaer County Government Center 1600 Seventh Avenue, Troy, N.Y. 12180 (518) 270-2900

February 6, 2020

Jeffrey Anzevino Scenic Hudson One Civic Center Plaza, Ste. 200 Poughkeepsie, NY 12601-3157

Dear Mr. Anzevino:

The Hudson River is one of the most majestic and important rivers in our country, linking communities from downstate to upstate, and providing great cultural, recreational, economic and environmental resources. The Hudson spans much of the length of Rensselaer County, and our county greatly benefits from our proximity to the waterway.

Rensselaer County is a proponent of protecting public access to the Hudson River. We have enjoyed a long history of boating, fishing, birding and hiking in and along the river. Additionally, the Hudson River plays an important and consequential role in our tourism industry, supporting countless recreational our activities for visitors to the area as well as its historical significance of exploration and navigation.

We support efforts by Scenic Hudson to gather public input and develop a Hudson River Access Plan, hopefully protecting current access points and expanding other areas of access to this historic and beautiful river. We also invite our residents to participate in this survey.

Our county has benefited greatly from increasing access to the Hudson River. Over 20 years ago, the county entered into a partnership with the Open Space Institute for management of the Papscanee Island Nature Preserve, along the river in the towns of East Greenbush and Schodack and south of the City of Rensselaer, and the opening approximately 15 years ago of Schodack Island State Park, along with boat launches in Troy and Rensselaer.

As elected officials representing the county, we recognize that residents want more access to the river at all points in our county. We first want to maintain all current access points now open for public use, and seriously examine establishing other points of access.

We first recognize the issues presented by railroad lines that operate parallel to the river in our county, particularly south from Rensselaer to the Columbia County border. We first recognize the railroad plays an important role in public transport and our economy.

While the rail system provides a crucial service to our area, fostering tourism and industry, it also serves as a barrier between the Hudson and riverfront communities and residents. Presently we have several at-grade crossings in Rensselaer County allowing residents to cross the rail tracks. Among the crossings are two that lead to conserved land with direct water access for the public: Schodack Island State Park and Papscanee Island Nature Preserve. As elected officials we have consistently supported expanding recreational opportunities within the county. With that, we understand that public safety cannot be compromised regardless of our position on river access.

With all those points for consideration, we would also submit that the railroad, and those agencies that oversee operation of the railroad, should recognize a responsibility, obligation and opportunity to work cooperatively to establish new access points to the river.

Rensselaer County urges Amtrak to consider supporting At-Grade crossings as detailed in the Scenic Hudson report, "At-Grade Passenger Rail Pedestrian & Trail Crossings." We would also invite various partners, including the federal and state levels of government, with local governments, and the railroad to work cooperatively to develop safe access points at various points in our county and through the Hudson River Valley.

As a community, we believe that we can come together with a plan to ensure public safety while concurrently preserving and enhancing access to the Hudson. The river is too important, both as recreational destination and an economic driver for our region. We also implore Amtrak to engage in community outreach when considering projects that have a direct effect on this region's quality of life and economic viability.

We thank Scenic Hudson for the opportunity to participate in this important effort and look forward to opportunities to protect and enhance access and enjoyment of the Hudson River.

Michael & Stammel

Mike Stammel Chair of the Legislature

Sincerely,

Steven F. McLaughlin

County Executive

Kelly Hoffman Vice Chair of the Legislature

A.K.

Kenneth Herrington Majority Leader

Tom Grant County Legislator

Rob Bayly County Legislator

Leon Fiacdo County Legislator

ando ani

Daniel Casale County Legislator

Robert Loveridge Vice Chairman of Finance

lo Todd Tesman

County Legislator

Scott Bendett County Legislator

Chuck Peter

County Legislator

Bruce Patire

County Legislator

vorla: Jeffrey Wysocki

County Legislator



VILLAGE OF

CASTLETON - ON - HUDSON

85 SOUTH MAIN STREET P.O. BOX 126 CASTLETON - ON - HUDSON, NEW YORK 12033 TELEPHONE (518) 732-2211 FAX (518) 732-1550

Incorporated 1827

Mayor Robert Schmidt

Trustees Marianne Carner Gina Giuliano Sharon Martin Jenifer Pratico

February 10, 2020

Jeffrey Anzevino Scenic Hudson One Civic Center Plaza, Suite 200 Poughkeepsie, NY 12601-3157

Dear Jeff,

As Mayor of the Village of Castleton-on-Hudson, I strongly support your efforts to preserve and increase safe public access to the Hudson River in Rensselaer, Columbia, and Dutchess Counties. Amtrak's proposal to install fencing along the east bank of the Hudson River threatens public access from Stuyvesant to Poughkeepsie. Here in the Village of Castleton-on-Hudson in Rensselaer County, we are an "on-Hudson" village, yet we have no public access to the river at all.

We have been promised access to the Village's Riverfront Park over the last 25 years, but fences and locked gates mean we have no access! We have an approved LWRP, and Riverfront Park was designated one of the three top priorities in the County for public access by the Rensselaer Land *Trust's Hudson River Access Study* (2018). Yet we still gaze at our eponym through locked gates with no trespassing signs.

We have come a long way since Pete Seeger's *My Dirty Stream*. It's 2020; the river is clean, the river is desirable and access is our right! We are too close to Albany and the Capital District to stay hidden much longer. Riverfront recreation with free access is a powerful economic driver. Investment is coming to both Castleton-on-Hudson as well the Town of Schodack with an expectation of access to the natural beauty and recreational opportunities provided by the river. it's our soul and our lifeline.

We have been awarded a NYSDEC Hudson River Estuary Access grant to pursue access. Combined with Scenic Hudson's outstanding leadership and advocacy, I hope this is the start of greater opportunities for all communities on the east bank of the Hudson.

Sincerely,

Robert G. Schmidt Mayor Village of Castleton-on-Hudson



Matt B. Murell Chairman

Ronald L. Knott Deputy Chairman

James J. Guzzi Deputy Chairman

February 14, 2020

By email: janzevino@scenichudson.org

Jeffrey Anzevino Scenic Hudson, Inc. 1 Civic Center Plaza, Suite 200 Poughkeepsie, NY 12601

Dear Mr. Anzevino:

Columbia County Board of Supervisors

401 State Street Hudson, New York 12534

Telephone: 518-828-1527 Fax: 518-822-0684 www.ColumbiaCountyNY.com Kelly S. Baccaro Clerk

We are writing to support Scenic Hudson's initiative to engage Columbia County stakeholders and others to better understand challenges and opportunities associated with protecting—and ultimately expanding—public river access.

The Hudson River is the reason why places like Stuyvesant Landing, Stockport Landing, Hudson, Germantown, and Cheviot developed in the first place. River access was key to Columbia County's early economic success. As time went, however, changes in transportation technology diminished the need for river access. At the same time river became tainted by sewage and industrial waste. Communities, literally, turned their backs on the Hudson River.

But, over the past decades and through the collaborative efforts of many public and private partners the Hudson River is cleaner now and serves once again as a source of community pride. Communities in Columbia County and beyond rely on the Hudson River as an integral part of their 21st century economy.

However, as you know, the railroad line along the Hudson's shoreline has been and remains a major impediment to river access. Throughout the 20th Century, one-by-one many historic, generational grade crossings have been closed. Historic steel truss bridges such as the one at Ferry Street in Hudson have gone unmaintained and fallen into disrepair. Some have been dismantled and we're in danger of losing others. A few years ago in Stuyvesant, we almost lost a grade crossing at Nutten Hook were it not for public outcry from local residents. And in 2018 Amtrak unveiled a plan to

~2~



install gates and impasse fencing in eight locations in five communities, including several locations n Stuyvesant, Stockport and Germantown. While the plan was withdrawn due to public pressure, we know that Amtrak will be back with a new application—and the new plan will probably not differ much from the old plan.

Our constituents at the January 4th Hudson River Shoreline Access Plan stakeholder meeting in Germantown spoke with a clear and unified voice. There is broad consensus that while the railroad is an important part of New York State's transportation infrastructures, a collaborative approach is required to reducing risk along the rail corridor that does not reduce already limited river access along the shore. This has been a burning issue in Columbia County for two years now and interest is steadily growing.

Again, thank you for engaging us in your effort to convene municipalities in three counties overcome river access challenges posed by the rail line along our shoreline. We believe that a reasonable solution can be identified that reduces risk while at the same time increases much-needed river access. We look forward to reviewing the plan when it becomes final in March.

Sincerely, Matt B. Murell

Chairman, Board of Supervisors Supervisor, Stockport

Ron Knott,

Ron Knott, Deputy Chairman, Board of Supervisors Supervisor, Stuyvesant

Robert W. Beaury

Supervisor, Germantown





Kamal Johnson Mayor, City of Hudson City Hall, 520 Warren St Hudson, NY 12534 (518) 828-7217 | mayor@cityofhudson.org cityofhudson.org

January 31, 2020

Jeffrey Anzevino, AICP Director of Land Use Advocacy Scenic Hudson, Inc.

Dear Jeffrey Anzevino,

I commend you and Scenic Hudson's efforts to ensure public access to the Hudson River. Our community relies on the Hudson River for fishing, recreation, and commerce. The 2011 Local Waterfront Revitalization Program (LWRP) demonstrates a clear vision for access to water. It states, the city is committed to "restoring and maintaining viewsheds to and from the waterfront and the river; and improving existing and ensuring additional public access to the River and the entire waterfront for water dependent and enhanced recreational and other purposes wherever possible."

Consistent with the LWRP, I want to increase access to the river and give more people the opportunity to take advantage of this important resource. In the North Bay, we are repurposing a historic fishing village as a city park. We also believe that we own 4.4 acres in the South Bay and are looking ahead to how that area can better serve our residents.

In addition, we are working on several projects that will increase access to the river, including the re-construction of the Ferry Street Bridge, restoration of the Dunn Warehouse, and a complete streets program. There are also several private initiatives that will increase the use of the waterfront.

It is important that these projects and future projects are working in synergy with the other waterfront developments. I would like to work cooperatively with the railroad, Scenic Hudson, and other stakeholders to ensure landside access for residents.

Kamal Johnson Mayor



Marcus J. Molinaro, County Executive

Residents' Input Sought about Hudson River Shoreline Access Plan

Dear Fellow Residents:

I am deeply concerned by Amtrak's proposed gates and fences along the Hudson River shoreline. The Hudson River, with its beautiful waterfronts, irreplaceable ecosystems, and rich history, is a national state and local treasure, and is part of what defines Dutchess County as a great place to live, work and visit. Since the passage of the Clean Water Act and the advent of the environmental movement born in the valley, the Hudson River has made a tremendous comeback and riverfront communities that once turned their backs on this polluted waterway, now look to the renewed river with waterfront plans and increased access opportunities driving private and public investments.

The towns of Red Hook and Rhinebeck, and Village of Tivoli have adopted Local Waterfront Revitalization Plans. As you know, Hudson River access and our shared viewshed is critical to each of these communities. The integration of the Hudson River into the modern development of each municipality is built upon the river's significant historic, cultural, and environmental past. This renewed realization led to the adoption of local land use policies, development patterns, economic development and tourism promotion efforts, the National Landmark District (requiring certain project reviews and policy consideration), Hudson River Valley Greenway, this County's Greenway Compact, and adoption of the Heritage River designation. All this should make clear this region's commitment to the river as a shared and essential asset. Access to the Hudson River is not only important; it is fragile.

We first raised this issue in March 2018 as Amtrak announced its intention to install fencing and barricades along its right of way in the towns of Rhinebeck and Red Hook. While that initial proposal has been withdrawn thanks to the outpouring of concerns from residents and elected officials, it is likely that the issue will be raised again. While we understand the safety intent and purpose of the proposed project, the ability to engage in discussions with Amtrak to identify areas of concern and where appropriate access restrictions and methods would be prudent was not available.

To provide a course of action that can be supported by river lovers and key stakeholders in Dutchess, Columbia and Rensselaer counties, Scenic Hudson has engaged consultants to draft a Hudson River Shoreline Access Plan. In addition to completing an updated documentation of places (formal and informal) where people currently enjoy water-related recreation, the plan will identify gaps in public access, recommend places for safe new shoreline access, and suggest ways to improve safety at these locations.

We share Scenic Hudson's concerns and encourage you to help by providing your input about where and how you use the river and, more importantly, where and how you'd like to use the river in the future. Please visit <u>hudsonriveraccess.org</u> and share your concerns and ideas.

Sincerely,

MN

Marcus J. Molinaro Dutchess County Executive

Dutchess County Legislature 22 Market Street, Poughkeepsie, NY 12601 845-486-2100 Fax 845-486-2113

January 21, 2020

Dear Constituents:

We, the various undersigned members of the Dutchess County Legislature, encourage you to take part in Scenic Hudson's effort to gather public input and develop a Hudson River Access Plan with the goal of protecting the public's right to access the Hudson River Shoreline. We wish to encourage the residents of Dutchess County to give their input at:

<u>https://hudsonriveraccess.org/</u>, sharing where and how you use the river and, more importantly, where and how you want to use the river in the future and protect access for our children and grandchildren.

Those who live in riverfront communities have long treasured a place where they can fish, launch boats, birdwatch, hunt, take a walk, or just sit and be inspired by the river's majesty. Throughout the 20th century, the increase in the construction of railroads has created barriers to access the Eastern shoreline between Poughkeepsie and Rensselaer. The railroad has offset accessible benefits provided by the riverfront parks created by Scenic Hudson. The most recent comprehensive evaluation of river access along the rail corridor occurred in 1989 which is why it is time for a 21st century reassessment.

In 2018, Amtrak announced its intention to construct 8,200 feet of fencing and locked barriers at locations along the tracks between Rhinecliff and Stuyvesant. In January 2019, Amtrak withdrew its plan after an outcry from local officials and citizens from a dozen riverfront communities. The New York State Department of State and Department of Transportation have helped Amtrak reach this decision. However, the rail carrier intends to reconsider the fencing proposal as part of a comprehensive five-year safety strategy along the entire Empire Corridor, the train line that stretches from Niagara Falls to New York City.

The proposed eight-foot-tall barriers would:

1. Disconnect communities from their waterfront.

2. Eliminate public river access at sites long cherished for fishing, boating, swimming, and duck hunting.

- 3. Mar outstanding river views in many places.
- 4. Prevent economic development and tourism opportunities along the river.

Scenic Hudson commissioned a report: *At-Grade Passenger Rail Pedestrian & Trail Crossings, Empire Corridor*, which offers successful and viable alternatives to gates and fences that would enhance rail safety and allow public river access.

Dutchess County Constituents January 21, 2020 Page 2

To provide a course of action that can be supported by river lovers and key stakeholders, Scenic Hudson has engaged experts to draft a *Hudson River Shoreline Access Plan*. In addition to completing an updated documentation of places, formal and informal, where people currently enjoy water-related recreation, the plan will identify gaps in public access, recommend places for safe new shoreline access, and suggest ways to improve safety at these locations.

As local officials of Dutchess County communities, many of which are riverfront, along with Scenic Hudson, we share deep concerns about any additional loss of public access at spots where people have connected with the river for generations and encourage constituents to participate in this effort at: <u>https://hudsonriveraccess.org/.</u>

Thank you for doing your part to take care of our beautiful Hudson River.

Sincerely,

Giancarlo Llaverias Legislative District 1

Don Sagliano

Legislative District 2

Michael Polasek Legislative District 3

Hannah Black

Legislative, District 4

homas L. Ketth, Jr. Legislative District 5

Rebecca Edwards, Minority Leader Legislative District 6,

Vill Truitt

Legislative District 7

Craig P. Brendli

Legislative District.8

Randy Johnson

Legislative District 9

arlence Ular.

Barbara Jeter-Jackson Legislative District 10

Brennan Kearney Legislative District 11

John D. Metzger, Asst. Majority Leader Legislative District 12)

Donna J. Bolner, Majority Leader Legislative District 13

isa Paoloni Legislative District 14

Ø Joseph D. Cavaccini Legislative District 15

Frits Zernike Legislative District 16

Doug McHoul Legislative District 17

Nick Page, Asst. Minority Leader Legislative District 18

A. Gregg Pulver, Chairman Legislative District 19

Kristofer Munn Legislative District 20

Steppen M. Caswell

Legislative District 21

Faye Garito Legislative District 22

RNSM

Edward P. Hauser Legislative District₂3

Ălan V. Surman Legislative District 24

Deirdre A. Houston Legislative District 25



Village of Tivoli Founded 1795

Joel R. Griffith Mayor Emily M. Majer

Deputy Mayor Susan G. Ezrati

Trustee

Jeanann M. Schneider Trustee

> Angela J. Cole Trustee

Robin L. Bruno Village Clerk

Bonnie L. Day Treasurer

Laura Gail Tyler Deputy Village Clerk

Historic Watts de Peyster Hall I Tivoli Commons 86 Broadway PO Box 397 Tivoli, New York 12583-0397

> Phone: 845-757-2021 Fax: 845-757-5416 www.tivoliny.org

February 10, 2020

Dear Scenic Hudson,

The Village of Tivoli wholeheartedly supports your project to create a comprehensive Hudson River Shoreline Access Plan. As a historic river community with deep and vital ties to the Hudson, we are grateful that you are once again leading all the communities of the Hudson region in a campaign to preserve, protect, and promote the public river access we hold so dear.

The Village of Tivoli traces its birth as a port on the Hudson River dating back to the 1730s. The Hudson is directly responsible for the fact our community developed at all, and in the nearly three intervening centuries it has played a central economic, cultural and recreational role in the survival and success of Tivoli.

The Village has been an LWRP (Local Waterfront Revitalization Plan) community since 1991. Attaining and promoting public access to the river was a clearly stated goal in this important document. In 2010, with the support of many state agencies and Scenic Hudson, the Village of Tivoli was able to acquire nearly three acres of riverfront property from CSX railroad with the idea of building a public park for residents and visitors. A riverfront park in Tivoli (it is only a 10 minute walk from the Village core to the waterfront) will have tremendous cultural, recreational, and economic benefits to our small but singular community.

Several years ago Tivoli was awarded a \$50,000 CFA grant from the Department of State to design a shoreline stabilization project to protect our parcel (where the park will be built) from erosion. In 2018, under the same grant program, we won a \$380,000 grant to construct the shoreline stabilization project. This work will take place in the summer of 2020. With the land acquired and protected, Tivoli's next move will be to design and build the park itself. Our little Village is moving closer and closer to realizing a dream going back nearly three decades: a handsome public park on the banks of the Hudson.

Also, last year, the Village won another \$50,000 CFA grant under the DOS to update our LWRP. We have a Waterfront Advisory Committee which is currently working to update this important document which will, like its 1991 predecessor, place public river access and all the attendant benefits squarely at its center.

Given this history, and all these years of work by our Village, Amtrak's proposal for gates and fencing at numerous locations up and down the river, including Tivoli, is of great concern to us. While we understand and share the desire to enhance safety, that must not come at the cost of cutting the public off from our region's greatest asset: the Hudson. Specifically in Tivoli, our waterfront land straddles the railroad tracks. Some of our land is on the east side, and some is on the west side right at the water's edge. How the public will cross the railroad tracks, which will cut through the center of our small but precious park, is a pressing question. One deeply undesirable option is for a pedestrian walkway over the tracks. The physical footprint of such a structure would consume most of the park's real estate which could otherwise be used for public recreation. Its height and mass would mar the very scenic views of the river and Catskill Mountains we are hoping to showcase. And its construction cost and longterm maintenance would be tremendous. Tivoli is very interested in other forms of public access (at-grade over railroad tracks) we understand are being identified as part of your Hudson River Shoreline Access Plan. Such alternatives, which would not have the multiple negative impacts of a pedestrian overpass, would be vital to the success of our Riverfront Park.

Tivoli residents and visitors have been making use of the riverfront at Tivoli for decades; whether fishing, kayaking, or enjoying another magnificent sunset over the Hudson and Catskills. The Village of Tivoli is grateful to, and fully in support of Scenic Hudson for undertaking this Hudson River Shoreline Access Plan.

Sincerely,

Mayor Joel Griffith Justant





THE TOWN OF RHINEBECK · NEW YORK

FOUNDED 1686

February 11, 2020

Jeffrey Anzevino, Land Use Advocacy Director Scenic Hudson One Civic Center Plaza, Suite 200 Poughkeepsie NY 12601

Dear Jeff,

On behalf of myself, our Town Board, and Town residents I thank and commend you for all of your efforts on our behalf to reject Amtrak's 2018 plan to erect 8ft high fences along the train tracks. Such a travesty would further erode our access to the Hudson River shoreline here in Rhinebeck. We wholeheartedly applaud your efforts to develop a Hudson River Shoreline Access Plan on our, and our neighboring communities', behalf.

The Hudson River is a defining element of our town. It is the western boundary of our municipality, a historic Heritage site, a superfund site, and the driving force of many of our Town policies and Zoning Codes.

In 2009 Rhinebeck adopted a new Comprehensive Plan and Zoning Code that was shaped by our previous adoption of the NY Department of State's Local Waterfront Revitalization Plan. The goals of our LWRP are very clear in preserving our community's access to the Hudson River. We stand firmly with you in our advocacy for at grade pedestrian cross walks, free and unfettered access to the river, and additional opportunity to develop (resurrect) historic riverfront access points in Rhinebeck at Slate Dock and Long Dock Roads.

We remain grateful for your and Scenic Hudson's guidance and advocacy on our behalf. You are an invaluable relationship to the environmental health and success of Rhinebeck.

With warmest regards, Elizabeth Spinzia Supervisor, Town of Rhinebeck



Historic Town of Hyde Park

Recreation Director's Office 59 East Market Street Hyde Park, NY 12538 (845) 229-8086, Extension 100, (845) 229-6851 Fax

Robert Pollard, Recreation Director "Working with you for a better Hyde Park"

February 3, 2020

Hudson River Access Planning Team c/o Scenic Hudson One Civic Center Plaza, Suite 200 Poughkeepsie, NY 12601

Re: Hudson River Access Plan

On behalf of the Town of Hyde Park Recreation Department, the Hyde Park Recreation Commission, and the Hyde Park Trails Committee, we feel strongly that access to the Hudson River Shoreline is vital to our community; and that the importance of access to the River will only increase over time as our community grows.

Public access to the Hudson River Shoreline in Hyde Park is currently restricted to park lands at the Vanderbilt Mansion NHS and Mills-Norrie State Park. Even the Town's Riverfront Park does not enable shoreline access or River contact, but instead provides important visual access. This means that there is considerable pent-up demand for river access for a variety of activities including: fishing, canoeing/kayaking, hiking, walking, picnicking, wildlife observation, citizen science, and simply taking in our region's incredible scenery.

Hyde Park owes its history to the Hudson River. In our community, it is of utmost importance to preserve, restore, and increase public access at more points along the shoreline in ways that accommodate increasing demand while maintaining public safety. Trying to simply restrict and redirect access to our cherished river ignores long-held community traditions, and may actually fuel the temptation for unsupervised and illicit use.

While we cannot speak for all interests in our community, the following railroad crossings and access points are of particular interest from the perspective of recreation and trails:

The Main Entry Road to Mills Mansion (Staatsburgh SHS)

This is currently single-lane only and lacks pedestrian accommodation. Trail/pedestrian access to the northern half of the Mills-Norrie Complex is currently limited to space shared with cars.

The Historic Carriage Road RR Crossing to the Hoyt House

This is part of a historic access road designed by Calvert Vaux, who later designed the landscapes of Olana and NYC's Central Park. Until it was closed in recent years, this bridge provided direct and highly popular community access to Mills-Norrie trails.

Two Bridges at the Hopeland Section of Mills-Norrie State Park

Both are currently closed. These provide the only access to State Park property on the shoreline that should be available for public use.

Dock Street

This historic stream and at-grade railroad crossing once provided the community's main access to the Hudson Shoreline from the downtown area, as well as to a private marina and to the south entrance of the Vanderbilt NHS.

Coal Dock Lane

This provides access to a private marina. It also receives informal public use, and provides an important community benefit.

Crum Elbow Point

This is the only portion of NPS land between the railroad and the river at the Home of Franklin D. Roosevelt NHS. It is a highly desirable trail destination, scenic viewpoint, picnic area, and potential water trail access point that was identified in the park's 2012 Trails Master Plan. The bridge over the railroad has been closed for several years, and should be restored to enable public access as well as patrol by park rangers.

Dominican Camp

A pedestrian bridge once provided access to the camp's shoreline and facilities for all kinds of water-based recreation. This area is now a popular destination along the Hyde Park Trail. The now-closed pedestrian bridge over the railroad is an important place to preserve and restore access to the shoreline.

These access sites would help keep up with demand for access to park lands, trails, and the Hudson River Shoreline in Hyde Park. They provide our community with access to the parks, trails, and shoreline attractions that make our community so special, sustain our community's quality of life, and help support our Town's tourism industry.

Sincerely,

Pent Spoledy

Robert Pollard Town of Hyde Park Recreation Director



OFFICERS

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March 5, 2020

Jeffrey Anzevino Scenic Hudson One Civic Center Plaza, Suite 200 Poughkeepsie, New York 12601

Re: Hudson River Historic Truss Bridges

Dear Mr. Anzevino,

It recently came to the Preservation League's attention that multiple early-20th century bridges that provide Hudson River access are in danger. These bridges cross the railroad tracks and we understand that Amtrak/CSX is proposing their removal or fencing them off to preclude maintenance and use.

As the statewide historic preservation nonprofit, this causes us great concern. Many of the bridges themselves either contribute to the Hudson River National Historic Landmark Historic District, are listed on the National Register, or are eligible for listing on the National Register. Removal of the bridges, or removing the ability to maintain them, would adversely affect these historic resources.

Additionally, there is a historic connection between the Hudson River communities and the waterfront. This connection to the water has its own historic and cultural significance. If this connection is removed, it would also adversely affect the historic landscapes strung along the east side of the Hudson River.

We sincerely hope that Amtrak/CSX reconsiders this ill-advised action and are happy to participate in any further discussion on the issue. Please don't hesitate to contact me with any questions.

Sincerely,

nenn

Jay DiLorenzo President



10 February 2020

Jeffrey Anzevino Scenic Hudson One Civic Center Plaza, Suite 200 Poughkeepsie, New York 12601

BOARD OF DIRECTORS De

Dear Mr. Anzevino:

The hamlets and great estates along the east bank of the Hudson River all enjoy a long history of access to the river that in many cases predates the coming of the railroad. This makes sense, since the transport of people and goods between New York City and Albany was quickest and most efficient by river even when roads connected the two cities, and remained so until the advent of rail travel. These river access points, both public and private, were retained once the railroad right-of-way was established, and form a critical historical, cultural, and practical physical link between the people resident on the east bank and their river. While the importance of river transport for people and goods has diminished, cargo still moves up and down the river on a daily basis, and passenger traffic has been replaced by recreational use – sailing, rowing, canoeing and kayaking, power boating, fishing, swimming, riverbank hiking, picnicking, and simply enjoying the iconic views, largely and intentionally preserved by generations of people who have cared. From a preservation perspective, the railway crossings – whether vehicular or pedestrian – are recorded as contributing features to the historic estates and hamlets that feature them. From Staatsburg to Clermont, within the bounds of the Hudson River National Historic Landmark District, these access points across the railway to the river are an essential component, bearing witness to the very reason the estates and communities were established here.

Specific bridges that exist within the Landmark District, and which are therefore considered contributing features protected by state and federal law, include vehicular bridges at The Point (Hoyt House), Staatsburgh (Mills Mansion), The Locusts (2 bridges), and the former Huntington estate (2 bridges), all in Staatsburg, the Rhinecliff ferry dock and the van Meeteren estate in Rhinebeck, Rokeby and Barrytown (Dock Road) in Red Hook, and Midwood in Clermont, along with pedestrian bridges at Rhinecliff and Poet's Walk Park. Continued and enhanced physical access to the Hudson River is and must remain a paramount public policy for our communities, the state, and the nation, regardless of whether the individual bridges are in active use today, are currently in usable condition, or are privately owned. Cutting off these connections to the river does more than inconvenience citizens and commerce; it would serve to diminish the quality of life and historical record of the Hudson River valley, and result in a negative environmental impact for those living in and visiting the affected communities.

Sincerely

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Warren Temple Smith, R.A.

Warren Temple Smith PRESIDENT Linda Scherr

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Hudson River Heritage P. O. Box 287 Rhinebeck, NY 12572

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Franklin D. Roosevelt Hyde Park Foundation

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janzevino@scenic Hudson.org

Dear Jeff:

I am writing as Chair of the Franklin D. Roosevelt Hyde Park Foundation because I have learned that the bridge over the CSX railroad tracks, which affords access to the Hudson from the land bequeathed to Scenic Hudson by Gerald Morgan, is threatened with elimination.

The Foundation is working to raise funds to facilitate the eventual transfer of the Morgan parcel to the National Park Service. A major reason why such an addition to the Roosevelt Historic Sites is desirable is that the bridge assures that the public can safely enjoy the recently established network of hiking trails on the adjacent riverfront parcel. Further, while there are some maintenance-related problems with the bridge's decking, they can easily be repaired; otherwise, the bridge appears to be structurally sound.

There is good reason to believe that the bridge, as part of the Morgan tract (which includes the ancient lane and the mid-19th century tenant house, will be eligible for inclusion on the National Register of Historic Places; under both State and Federal law, the State Historic Preservation Office must approve the dismantling of the bridge. Given that improved public access to the Hudson River is a policy goal of both the State and Federal governments, dismantling this venerable link to the riverfront now would be so shortsighted as to be almost wanton. It is the position of the Foundation that this must not happen.

Please let me know if we can do anything further to support the effort to preserve this bridge; it is an important public asset.

With thanks and best wishes.

Sincerely,

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Kevin M. Burke, Ph.D. <u>kevin.matthew.burke@gmail.com</u> (917) 584-0856

4097 Albany Post Road, Hyde Park, NY, 12538 www.FDRHydePark.org February 10, 2020

The City of Poughkeepsie

New York



Sarah Salem Common Council Chairperson 62 Civic Center Plaza Poughkeepsie, NY 12601 Telephone: (845) 451-4276 Facsimile: (845) 451-4239

January 31, 2020

We, the City of Poughkeepsie Common Council and the Waterfront Advisory Committee, collectively and wholeheartedly support Scenic Hudson's current effort to create a Hudson River Shoreline Access Plan. As a river city with a long history that is directly linked to our location on the shores of the Hudson, we believe that the ability of our residents to have access to this natural resource and economic driver is of paramount importance. The Hudson River is inextricably connected to our history, our identity, and our economy as the "Queen City of the Hudson".

River access is of such high priority, in fact, that it is a primary focus of the City's recent work to update its Local Waterfront Revitalization Program (LWRP). The LWRP, a planning and policy document used by the City, establishes goals and priorities as well as evaluates development projects within its coastal zone, in order to identify issues with and opportunities for increased public access to our Hudson waterfront. The City of Poughkeepsie has also made a conscious effort to continue to increase public access to the waterfront by improving well-used parks like Waryas Park and Kaal Rock Park; working with private entities to create new waterfront parks such as Upper Landing (which connects to the Walkway Over the Hudson State Historic Park via an glass-encased elevator, providing sweeping views of the Hudson River); and partnering with the state and private developers to clean brownfield sites such as One Dutchess Avenue and the former DeLaval site, readying them for new and dynamic uses.

Access to the Hudson River and its tributaries such as the Fallkill brought forth the earliest inhabitants of our Hudson River Valley, as it provided necessary sustenance and the ability to travel and foster connections between people and places. Throughout much of Poughkeepsie's industrialized history, public access to the Hudson River waterfront was significantly diminished. However, as industrial uses have declined and dependence on the river and nearby rail for the transportation of goods has dwindled, the City now has an opportunity to reinvigorate its relationship with the Hudson once again. Communities throughout New York State are increasingly finding innovative ways to expand access to their waterfronts, and this has proven to be a powerful economic development strategy as well as a boon to the quality of life for residents.

With an increased interest in Poughkeepsie's waterfront comes an opportunity for the City to ensure that public access to the Hudson is factored into every single planning decision made. The City's desire to create a continuous greenway trail along the Hudson waterfront, for instance, has been well documented throughout numerous local planning documents for decades. The City has identified critical gaps in access along its waterfront, including between One Dutchess Avenue and Upper Landing Park on the northern waterfront; between Waryas and Kaal Rock Parks in the central waterfront, where a bicycle and pedestrian bridge has been proposed around Kaal Rock; and at the southern waterfront along the former

DeLaval site, where the City plans to connect the greenway trail under the Metro-North train tracks to Prospect Street. Bridging these gaps is essential for protecting the public's ability to access and enjoy the Hudson River throughout the entire year and via a diversity of uses.

We applaud Scenic Hudson's commitment to ensuring public access to the Hudson's Shoreline. The City of Poughkeepsie Common Council and the Waterfront Advisory Committee both fully support these efforts to identify and protect the critical access points along the Hudson Riverfront and to expand access for City of Poughkeepsie and Hudson River Valley residents and visitors alike, thus increasing their ability to connect with one of our region's most wondrous natural resources.

Sarah A. Salem

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Chair and Councilmember At-Large, City of Poughkeepsie Common Council

Europa McGovern

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Chair, City of Poughkeepsie Waterfront Advisory Committee

APPENDIX B: REFERENCES

REFERENCES AND PAST STUDIES

FOR THE READER'S BENEFIT, BELOW IS A LIST OF THE PRIMARY RESOURCES USED FOR THE DEVELOPMENT OF THE HUDSON RIVER ACCESS PLAN – POUGHKEEPSIE TO RENSSELAER.

- 1. At-Grade Passenger Rail Pedestrian & Trail Crossings Empire Corridor South, Scenic Hudson White Paper, November, 2018
- High Speed Rail Empire Corridor Program Tier 1 Draft Environmental Impact Statement, U.S. Department of Transportation, Federal Highway Administration (U.S. DOT, FRA) and New York State Department of Transportation (NYSDOT), January, 2014
- 3. Between the Railroad and the River Public Access Issues and Opportunities along the Tidal Hudson, Hudson River Access Forum, September, 1989
- 4. The Railroad, the Hudson River and Public Access: Legal Obligations and Opportunities, Hudson River Foundation for Science and Environmental Research, Inc. November, 1995
- 5. On the Wrong Side of the Railroad Tracks: Public Access to the Hudson River, Matthew Atkinson, Pace Environmental Law Review, April, 1996, , "
- 6. Construction of an Undeveloped Park in Castleton-On-Hudson, Proposal to the Hudson River Improvement Fund, March 15, 1995, , "
- Hudson River National Estuarine Research Reserve Management Plan October 1-2019 to Oct. 1 2024, NYS DEC Hudson River Estuary Program, October 2019
- 8. Rensselaer County Hudson River Access Plan, Rensselaer Land Trust, June, 2018
- 9. Castleton-On-Hudson Riverfront Park Proposal to the Hudson River Foundation, March 15, 1995.
- 10. Village of Tivoli, Railroad Crossing Feasibility Study, November 1996
- 11. Adjudicatory Order, Town of Marlborough, Milton Landing, NYSDOT, August 19, 2019
- 12. Report to Congress/National Strategy to Prevent Trespassing on Railroad Property. Federal Railroad Administration / U.S. Department of Transportation, October, 2018.
- 13. The Third Mode: Towards a Green Society, Jeff Olson, 2012
- 14. NYS Office of General Services 19th Century Hudson River East Shore Railroad records at their offices in the Empire State Plaza, Albany, NY.
- 15. Hudson River Valley Greenway Act of 1991.
- 16. Amtrak Five Year Infrastructure Asset Line Plan, Amtrak, Base (FY 2019) + Five Year Strategic Plan (FY 2020-2024).

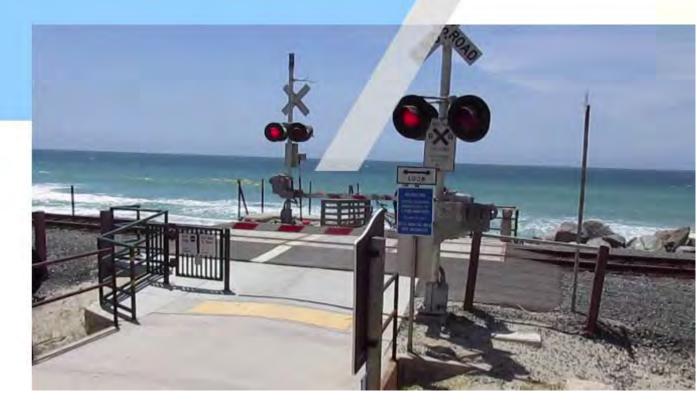
FOR THE READER'S BENEFIT, BELOW IS A LIST OF THE LWRP'S USED FOR THE DEVELOPMENT OF THE HUDSON RIVER ACCESS PLAN – POUGHKEEPSIE TO RENSSELAER.

- 1. May, 1987 Planners East, Inc., "City of Rensselaer Local Waterfront Revitalization Program"
- 2. April, 1999 Shuster Associates Planning Consultants, "Town of Poughkeepsie Local Waterfront Revitalization Program"
- 3. November, 2011 BFJ Planning & Cheryl A. Roberts, Esq., "City of Hudson Local Waterfront Revitalization Program"
- 4. March, 1995 Shuster Associates, "Town of Schodack and Village of Castleton-on-Hudson Local Waterfront Revitalization Program"
- 5. September, 1995 Raymond, Parish, Pine & Weiner Inc., "Town of Red Hook Local Waterfront Revitalization Program"
- 6. April, 2018 Town of Germantown and Delaware Engineers, D.P.C., "Town of Germantown Local Waterfront Revitalization Program"

APPENDIX C:

November, 2018 Scenic Hudson White Paper: "At-Grade Passenger Rail Pedestrian & Trail Crossings - Empire Corridor South."

At-Grade Passenger Rail Pedestrian & Trail Crossings Empire Corridor South WHITE PAPER & RESOURCES



Prepared for:



Prepared by:



November 2018

INTRODUCTION

Introduction

The National Railroad Passenger Corporation (Amtrak) has proposed constructing impasse fencing along the Empire Corridor South in locations where it currently does not exist to keep trespassers and vehicles off Amtrak right of way. The proposal was submitted and is subject to a New York State Coastal Management Program (CMP) Consistency Determination by New York's Department of State (DOS), the state's lead Coastal Management agency.

Scenic Hudson, a land preservation and environmental organization in the Hudson Valley, is concerned that this fencing—located between Poughkeepsie (MP 75) and Rensselaer (MP 141)—will eliminate public access to the Hudson River where water-dependent and water-related activities have been enjoyed for generations.

Municipal officials, advocacy organizations and hundreds of stakeholders in the corridor have submitted comments to the DOS expressing concerns about loss of river access for fishing, hunting and boating; impact on views; and increased response time for emergency providers such as police and fire departments Emergency Medical Service (EMS) and responders.

The project as currently proposed affects coastal resources and inhibits achievement of New York's CMP policies. Scenic Hudson has therefore retained McLaren Engineering Group (McLaren) to determine if practical at-grade protected pedestrian or trail crossing solutions exist that could be advanced at some of these locations.

McLaren has conducted a desktop literature review to assess current installations of higher speed conventional and at-grade pedestrian and trail rail crossings, policies and procedures, and applicable standards. Interviews with key individuals in the industry nationally conducted gather additional were to information.

Higher speed rail is defined as trains that travel at top speeds of 90 to 110 mph. High speed rail is defined as speeds above 110mph.¹

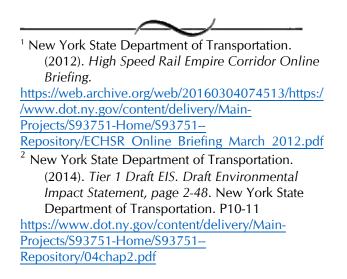
McLaren also was asked to provide a preliminary overview of the proposed project's potential impact on coastal resources and achievement of New York's CMP policies. The findings are outlined in this white paper.



Germantown Site Location (MP 105)

Background

The project's impact on the achievement of NYS CMP public access policies is of primary concern. For example, the shore of the Hudson River between Rhinecliff (MP 89.0) and Stuyvesant Landing (MP 123.8), the site of eight proposed fencing locations, is an important and well-used resource for water-dependent activities such fishing, hunting as and recreational boating. Access to the river requires crossing the Empire Corridor South tracks, which is done at designated crossings and other locations. Train speeds in this portion of the Empire Corridor South can reach 90 mph.²





Amtrak states that the fences will serve to direct pedestrians and vehicle traffic to public crossings that will be protected by crossing gates equipped with early warning devices.

In one instance, described in Amtrak's application (Amtrak Federal Consistency Form, January 12, 2018) as "MP 104.98—Germantown Town Park," no crossing currently exists and the 700-foot-long fence would prevent—and effectively end—generations of Hudson River access for water-dependent and water-related uses.

Proposed fencing at Tivoli (MP 99.2) has been deferred, as the village is in the process of planning a waterfront park at that site. CSX sold the site to the village in order to develop a park. The sale included a condition that upon park construction, the existing grade crossing at Diana Street would be closed and a gradeseparated pedestrian overpass installed to access the riverfront. This requirement has caused concern among village officials; neighboring residents; people who have been launching kayaks, canoes and other small boats; anglers; and others. Their concern is based on an array of factors: high cost; reduced access to launch boats; dedication of valuable riverfront land to a large pedestrian bridge structure instead of park purposes; and visual impacts affecting the Hudson National Historic Landmark District and the Clermont Subunit (ED-1) of the Estates District Scenic Area of Statewide Significance.

This white paper provides a review of current literature, including the American Association of State Highway Transportation Officials (AASHTO), Manual on Uniform Traffic Control Devices (MUTCD), and other engineering standards that apply to pedestrian and trailway crossings of high or higher speed passenger rail lines. The white paper will assess current installations of such at-grade crossings, as well as the techniques used and related policies and procedures. Based on this assessment, the white paper will provide guidance as to whether atgrade pedestrian crossings are a viable option in the Empire South Corridor.

Project Purpose & Need

Amtrak has indicated it is proposing these actions to improve public safety along the Empire Corridor South. The recommendations from Federal Rail Administration (FRA) state: "Eliminate redundant or unnecessary all crossings, together with any crossings that cannot be made safe due to crossing geometry or proximity of complex highway intersections" "Install the most sophisticated traffic and control/warning devices compatible with the location, (e.g. four quadrant gates) where train operating speeds are between 80 and 110 mph."³ Amtrak's application would not "eliminate...redundant or unnecessary crossings," nor does the proposal include "the traffic most sophisticated control/warning devices." As currently proposed, Amtrak would construct the gates and fences without conducting a regional assessment of access needs or undertaking an analysis of their impacts on coastal resources and achievement of NYS CMP policies.



Germantown Site Location (MP 105)

In addition, a recent study of the safety record of trains in the Empire Corridor (Buffalo to New York City) conducted by the New York State Department of Transportation (NYSDOT) states, "From 2002 to 2011, of the 10 incidents which occurred at public grade crossings along the Empire Corridor, seven resulted in injuries, but no fatalities."⁴ This would appear to obviate—or



Administration. (Last Modified 2014, October 15). *Safety*.

https://safety.fhwa.dot.gov/hsip/xings/com_roaduser/0 7010/sec04a.cfm

⁴ New York State Department of Transportation. (2014). Tier 1 Draft EIS. Draft Environmental Impact Statement, page 2-48. New York State Department of Transportation. P2-48



at least reduce—the need for a grade-separated overpass at Tivoli.

NYS CMP POLICIES & GUIDELINES

The federal Coastal Zone Management Act requires the federal government to comply with a state's approved CMP when taking actions that are likely to affect coastal resources. The CMP agency and DOS are responsible for reviewing proposed federal actions. They either concur with or object to the federal proposal as being consistent with the state's CMP.

The CMP and the Local Waterfront Revitalization Program (LWRP). also administered by the New York DOS, provide clear direction for the provision of public access in proposed actions affecting coastal uses and resources. **LWRPs** are locally-prepared, comprehensive land- and water-use programs for community's natural, public, working а waterfront and developed coastal areas. They provide a comprehensive structure within which critical coastal issues can be addressed. Both the Town of Rhinebeck and Village of Tivoli, which are among the eight proposed fencing locations, have completed approved LWRPs.⁵

Once an LWRP is approved by the New York State Secretary of State, state agency actions are required to be consistent with the approved LWRP to the maximum extent practicable. When the federal government concurs with the incorporation of an LWRP into the CMP, federal agency actions also must be consistent with the approved addition to the CMP.⁶

https://www.dot.ny.gov/content/delivery/Main-Projects/S93751-Home/S93751--Repository/04chap2.pdf

⁵ New York State Department of State. Planning & Development. Frequently Asked Questions. Local Waterfront Revitalization Program (LWRP) https://www.dos.ny.gov/opd/fag.html

⁶ New York State Department of State. Planning & Development. Local Waterfront Revitalization Program (LWRP). Division of Planning. https://www.dos.ny.gov/opd/programs/lwrp.html

POLICIES, STANDARDS AND TECHNIQUES FOR AT-GRADE, GATE-PROTECTED PEDESTRIAN CROSSINGS

In its January 12, 2018, Federal Consistency Assessment Form, Amtrak acknowledges that the project will reduce public access to the Hudson River and shoreline. As currently proposed, it primarily affects coastal resources and achievement of NYS CMP policies 19, 20 and 21.

Policy 19 guidelines state, "the existing access from adjacent or proximate public lands or facilities [such as public parks, parking lots or other public property] to public water related recreation resources and facilities [Hudson River and shoreline] shall not be reduced, nor shall the possibility of increasing access in the future...be eliminated."

Since the project would reduce—and not increase—public access, it does not appear to achieve or advance Policy 19.

Policy 20 Explanation of Policy states, "in coastal areas where there are little or no recreation facilities providing specific water-related recreational activities, access to the publicly-owned lands of the coast at large should be provided for numerous activities:

- walking along a beach or a city waterfront
- bicycling
- bird watching
- photography
- nature study
- beachcombing
- fishing and hunting"

There are several methods of providing access...[including] "the provision of access across transportation facilities."

Since this project does not provide new access for a variety of water-related activities, it appears neither to achieve nor advance Policy 20.



Policy 21 Explanation of Policy states, "among priority areas for increasing water-related recreation opportunities are those areas where access to the recreation opportunities of the coast can be provided...and those areas where the use of the shore is severely restricted by...railroads."

Since the project does not provide new access opportunities over railroads, it does not appear to achieve or advance Policy 21.

Warning devices and traffic control for railroadhighway crossings consist primarily of signs, pavement markings, flashing light signals and automatic gates. Criteria for the design, placement, installment and operation of these devices are covered in the MUTCD.⁷ Crossing angle, crossing surfaces, trail width and flange opening between the rail and trail surface are important considerations in the design of an atgrade trail-rail crossing.⁸

A 2002 US DOT report that assesses rails with trails provides considerable detail on the design of at-grade rail-with-trail and trail-related crossings.9 In addition to the MUTCD standard devices, innovative treatments have been developed to encourage cautious pedestrian behavior. The appropriate traffic-control system should be determined by an engineering study for all trail-rail crossings to determine the best combination of active safety devices. Key considerations include train frequency and speed, sight distance, other train operating characteristics, presence of potential

⁷ American Association of State Highway & Transportation Officials. (2011 - 6th Edition). A Policy on Geometric Design of Highways & Streets.

- ⁸ American Association of State Highway & Transportation Officials. (2012 - 4th Edition). Guide for the Development of Bicycle Facilities.
- ⁹ US Department of Transportation. (2002). *Rails with Trails: Lessons Learned*. US Department of Transportation. P74

https://www.transit.dot.gov/sites/fta.dot.gov/files/docs /RailsWithTrails.pdf obstructions and volume of trail users. Active traffic control systems advise trail users of the approach or presence of a train at railroad crossings. Information regarding the appropriate uses, location and clearance dimensions for active traffic control devices can be found in Part 8 of the MUTCD.¹⁰

Passive and active devices may be used to supplement highway-related active control devices to improve non-motorist safety at trailrail crossings. Passive devices include fencing, swing gates, pedestrian barriers, pavement markings and texturing, refuge areas and fixed message signs. Active devices include flashers, audible active control devices, automated pedestrian gates, pedestrian signals, variable message signs and blank-out signs. These devices should be considered at crossings with high pedestrian traffic volumes, high train speeds or frequency, extremely wide crossings, complex crossing geometry with complex rightof-way assignment, school zones, inadequate sight distance and/or multiple tracks. All pedestrian facilities should be designed to minimize pedestrian crossing time, and devices should be designed to avoid trapping pedestrians between sets of tracks.¹¹

The MUTCD provides guidance on the types of signage, signals and warning devices for at-grade rail crossings. Chapter 8 focuses specifically on at-grade trail-rail crossings for pedestrians.

"Traffic control for trail grade crossings includes all signs, signals, markings, other warning devices, and their supports at trail grade crossings and along trail approaches to grade crossings. The function of this traffic control is to



¹⁰ US Department of Transportation. (2002). Rails with Trails: Lessons Learned. US Department of Transportation. P77

https://www.transit.dot.gov/sites/fta.dot.gov/files/docs /RailsWithTrails.pdf

¹¹ US Dept. of Transportation - Federal Highway Administration. (Last Modified 2014, October 15). Safety.

https://safety.fhwa.dot.gov/hsip/xings/com_roaduser/0 7010/sec04c.cfm#j



promote safety and provide effective operation of both rail and trail traffic at trail grade crossings."¹²

The requirement for extra warning time for pedestrians and motorists at grade crossings with higher speed rail operations is emerging as an additional issue for safety upgrades. Currently, the typical warning time at crossings where pedestrians may be present is between 20 and 30 seconds for conventional-speed trains. In areas with train speeds up to 110 mph, confirmation signals are needed to inform the crew and the onboard computer that the crossing is clear, and a warning time of at least 80 seconds is recommended.¹³

Bridge structures provide another option for pedestrian and trail crossings over rail lines. However, while bridges can provide an additional level of safety over at-grade crossings, there are drawbacks, which may include cost (a bridge costs approximately \$1.5 million versus \$50,000-\$300,000 for an at-grade crossing designed to current standards)¹⁴; aesthetics, with site constrants due to the location of the tracks in relation to the river; ADA standards; and kayak/canoe portage. In addition, maintenance and emergency-vehicle access to the riverfront will be needed in most cases, which would require an at-grade crossing in addition to a pedestrian or trail bridge.



¹² Manual on Uniform Traffic Control Devices (MUTCD). (2009). 2009 Edition Chapter 8D. Trail Grade Crossings. MUTCD. https://mutcd.fhwa.dot.gov/htm/2009/part8/part8d.ht m#figure8D01

¹³ Paul Metaxatos & P.S. Sriraj, P. M. (April 2013). Pedestiran/Bicyclist Warning Devices & Signs at Highway-Rail and Trail-Rail Grade Crossings. Illinois Center for Transportation.

https://www.americantrails.org/files/pdf/FHWA-ICTrail-path-crossing.pdf

 ¹⁴ PEDSAFE/FHWA. (2013). Pedestrian Safety at Railroad Crossings.
 <u>http://www.pedbikesafe.org/pedsafe/countermeasures</u> detail.cfm?CM_NUM=66

ILLUSTRATIVE EXAMPLES

Examples of current conventional and higher speed at-grade pedestrian and trail-rail crossings include the Illinois High Speed Rail, Florida Brightline and Orange County Metrolink.

ILLINOIS HIGH SPEED RAIL, CHICAGO-ST. LOUIS

The overall purpose of the Illinois High Speed Rail project is to enhance the passenger transportation network within the 284-mile Chicago to St. Louis corridor, resulting in a more balanced use of the transportation system. Although the project is still in progress, much has already been done toward accomplishing the goal of a 110-mph corridor. The program has consisted of track improvements, enhanced signal systems and grade-crossing improvements that have included four quadrant gates, pedestrian gates and fencing, as well as pedestrian escape gates. An 80-second warning signal prior to a train's arrival affords vehicles and pedestrians time to cross.

The Illinois Department of Transportation (IDOT) Bureau of Railroads is leading the overall management for the project's development and implementation.



Illinois High Speed Rail crossing



Installation of the improved at-grade crossings and signals began in 2014 and is just being completed. Trains are currently operating at 79 mph, but will soon increase to 90 mph as software improvements are completed. The trains will eventually run at up to 110 mph. According to phone interviews conducted with two IDOT officials, no issues have been reported with the upgraded crossings.¹⁵

The 284-mile Illinois High Speed Rail program clearly demonstrates that a system containing dozens of at-grade crossings can be operated and maintained safely. The 80-second advance notification to clear the track is recommended for the Empire Corridor South.

FLORIDA BRIGHTLINE

The Florida Brightline is an express intercity rail line operating at speeds up to 79 mph between Miami and West Palm Beach, with an intermediate stop at Fort Lauderdale. Developed by All Aboard Florida, a wholly owned subsidiary of Florida East Coast Industries, it is the nation's only privately owned and operated intercity passenger railroad. The Brightline runs along the state's densest population corridor, which contains more than 6 million residents and a regular influx of tourists.



Florida Brightline (Palm Beach Post)

The Fort Lauderdale to West Palm Beach segment opened on January 13, 2018, followed by Fort Lauderdale to Miami on May 19. An extension from West Palm Beach to Orlando via Cocoa is scheduled to open in 2021, with more extensions planned. The project included more than \$1.5 billion in upgrades to the rail corridor between Miami and Cocoa. These improvements included double tracking the corridor, improving signaling systems and upgrading some grade crossings.¹⁶

However, grade-crossing improvements have not been made at all locations. In Palm Beach County, 20 out of 80 Brightline crossings are not being improved to keep motorists, bicyclists or pedestrians from maneuvering around lowered warning gates. Curbed median islands and flexible polymer markers will be added to some crossings in West Palm Beach to deter this activity.¹⁷ Less than half of the Brightline crossings have quad gates.

Since Brightline service began in January 2018, there have been several fatalities and injuries that occurred as a result of pedestrians and bicyclists moving around a lowered gate or crossing along the tracks.

The Florida Brightline clearly has encountered serious safety issues. While we should pay close attention to the lessons learned, it should be noted that the Brightline introduced high speed trains in an urban corridor without making sufficient upgrades. In contrast, the Empire Corridor South is proposing modest speed increases in a corridor where open access to the river predates the rail line's construction in the 19th century.

 ¹⁵ Interviews with Eliott Ramos and Bryan Trygg, IDOT 2018
 Illiniois Department of Transportation and Federal Railroad Administration, (2018). *Chicago to St. Louis High Speed Rail Project*. http://www.idothsr.org/about/team.aspx

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¹⁶ Wikipedia, (2018). Brightline.
 <u>https://en.wikipedia.org/wiki/Brightline</u>
 ¹⁷ Palm Beach Post. (2018) Brightline.



METROLINK ORANGE COUNTY LINE

California's Metrolink Orange County is a commuter rail service operating between Los Angeles and Oceanside in San Diego. It is part of the larger Metrolink system operating on 534 miles of rail in Southern California. The City of San Clemente, Orange County Transportation Authority (OCTA) and Metrolink worked cooperatively to construct safety enhancements, including five new at-grade pedestrian crossings along a 2.5-mile segment providing connections to an oceanside trail and popular beach. The latest at-grade crossing equipment was installed, including pedestrian crossing gate arms, lights, bells, emergency egress gates, fencing and an audible warning system that was part of a quiet zone initiative. The crossings were installed in 2008 and the audible warning systems for guiet zones around 2014. Although operating speeds along portions of the Orange County line reach up to 90 mph, speeds on the San Clemente segment are below 50 mph due to the line's The example is nonetheless curvature. instructive since the crossing equipment upgrades are similar to those used in the Illinois High Speed Rail systems. No formal reports have been prepared about the crossings, but rail operators reported to the city that they like the improvements because fencing along the 2.5mile segment directs people to the crossings, preventing them from crossing the tracks anywhere. There has been one incident, a fatality, in the area where improvements were made; however, police determined it to be a suicide.18

The Metrolink Orange County Line is an excellent example of pedestrian rail crossing upgrades being made to achieve improved waterfront access.



Office (October 1, 2018) Phone interview Orange County Transportation Authority Website, 2013 Orange County Transportation Authority, (2013). San Clemente Pedestrian Crossings. https://www.octa.net/Projects-and-Programs/All-Projects/Rail-Projects/Railroad-Crossing-Enhancements/San-Clemente-Pedestrian-Crossings/



San Clemente Metrolink Crossing

SUMMARY OF FINDINGS

The purpose of this white paper is to conduct a preliminary desktop review of pedestrian crossings of high or higher speed rail lines, and to follow up with a few select interviews with industry experts. Its findings would determine if at-grade protected crossings are practical in the Empire Corridor South (particularly Rhinecliff to Stuyvesant Landing), where Amtrak train speeds may be as high as 90 mph. The paper also provides a preliminary overview of the project's impact on coastal resources and achievement of the NYS CMP policies.

Preliminary findings strongly show that by using readily available technology, at-grade, gateprotected pedestrian crossings are a viable, safe and practical alternative to bridge construction or total elimination of access at Germantown, Tivoli and other locations along the Empire Corridor South.

Public access to the Hudson River has been an important tradition in the communities between Rhinecliff and Stuyvesant Landing for generations. Indeed, the LWRPs of Rhinebeck and Tivoli provide blueprints for the stewardship and enjoyment of natural, public and developed waterfront resources along the river.



As noted by PEDSAFE¹⁹, a pedestrian bridge can cost \$1.5 million or higher, as documented in the preliminary budget developed for Village of Tivoli waterfront park (2016 Master Plan). Conversely, state-of-the-art at-grade crossings can cost \$50,000-\$300,000, depending on existing conditions. In addition to being significantly lower in construction costs, at-grade crossings require less maintenance, provide easier portage opportunities (kayaks/canoes) and are more aesthetically pleasing. At-grade crossings for pedestrians also can be combined with emergency and maintenance vehicle access.

Based on McLaren's review of literature, interviews and illustrative examples, at-grade pedestrian or trail crossings of the Empire South corridor between Rhinecliff and Stuyvesant Landing, if properly designed to current AASHTO and MUTCD standards, are feasible. Such a design would include features such as pedestrian gates, pedestrian escape gates, fencing and an 80-second signal delay.

Based on analysis of the NYS CMP Policies, approved LWRPs and public comments, it appears the project as currently proposed may affect coastal resources and may not achieve or advance NYS CMP policies.

At-grade pedestrian crossings using state-of-theart engineering practices and solutions would provide safety and increase access to the Hudson River. This approach, considering safety and access together, is needed to satisfy consistency requirements of local LWRPs and NYS Coastal policies, and may be an acceptable solution to all stakeholders.

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 ¹⁹ PEDSAFE/FHWA. (2013). Pedestrian Safety at Railroad Crossings.
 <u>http://www.pedbikesafe.org/pedsafe/countermeasures</u> detail.cfm?CM_NUM=66



APPENDIX – VARIOUS RESOURCES

These additional resources were reviewed in the development of the white paper.

Interviews

Wes Coates, former Amtrak General Manager—Empire Service Product Line; currently Executive Director, Catskill Revitalization Corporation/General Manager—Delaware & Ulster Railroad, interviewed September 2018 by Peter Melewski, PE, MEG.

Elliott Ramos, Project Engineer, Illinois DOT Rail Division, interviewed September 17, 2018, by John DiMura, MEG.

Brian Trygg, Illinois DOT Local Roadways Bureau, interviewed September 14, 2018, by John DiMura, MEG. During the public comment period, DOS received comments from 302 individuals and a petition with 108 signatures. There are two still-active (change.org) petitions, one with 495 signatures, the other with 1,643 signatures.

Tom Bonigut, City of San Clemente Engineering Office, interviewed October 1, 2018, via phone by John DiMura, MEG.

Rails to Trails Conservancy: Rails -with Trails Design, Management and Operating Characteristics of 61 Trails Along Active Railroads

Rails to Trails Conservancy. (2005). Rails with Trails: A Preliminary Assessment of Safety and Grade Crossings. Rails to Trails Conservancy.

https://www.railstotrails.org/resourcehandler.ashx?name = rails-with-trails-a-preliminary-assessment-ofsafety-and-grade-crossings&id = 4616&fileName = RwT Grade Crossings Report final Ir.pdf

Rails-with-Trails: A Preliminary Assessment of Safety and Grade Crossings

https://www.railstotrails.org/resourcehandler.ashx?name = rails-with-trails-a-preliminary-assessment-ofsafety-and-grade-crossings&id = 4616&fileName = RwT Grade Crossings Report final Ir.pdf

America's Rails-with-Trails

https://www.railstotrails.org/resourcehandler.ashx?name = americas-rails-with-trailsreport&id = 2982&fileName = RwT%20Report_FINAL_103113_low%20res.pdf

Transportation Research Board (TRB) – Innovations Deserving Exploratory Analysis (IDEA) High Speed Rail Final Reports

http://www.trb.org/Publications/PubsIDEAHighSpeedRailFinalReports.aspx

- Project 11: Integrated Quad Gate Crossing Control Systems
- Project 8: Remote Sensing Advance Warning Systems Test Project
- Project 5: Enhanced Proximity Warning System for Locomotives

Progressive Railroading

Crossings w/better warning devices – Jan. 2010 https://www.progressiverailroading.com/c_s/article/Railroads-arm-grade-crossings-with-better-warningdevices-22316

Florida WTOP – New High-Speed Train – 4th death

https://wtop.com/travel/2018/01/man-hit-by-floridas-new-high-speed-train-4th-death-so-far/ 15 second warning before train goes by.



PEDSAFE: Pedestrian Safety at Railroad Crossings

http://www.pedbikesafe.org/pedsafe/countermeasures detail.cfm?CM NUM = 66

Crossing collisions & fatalities by year (general) has decreased

https://oli.org/about-us/news/collisions-casulties

Published on Aug 21, 2017—New Railroad Crossing

New railroad crossing installation on Daniels Road in Moore Haven, Florida, next to Sportsman Village near the Caloosahatchee Canal and Lake Okeechobee. A wood post and cross bucks (visible on Google Maps) previously provided the only warning at this SCFE former CSX crossing. There were no signals, lights, gates or bells. https://www.youtube.com/watch?v=nUGSXQO96rs

Meadowview Road Railroad Crossing with New Gate Getting Installed, SACRT 122 Light Rail *Published on Aug 24, 2015*

The Sacramento Regional Transit Blue line opened today with service to CRC for the light rail. A new gate is being installed on UPRR gate because a car hit the gate and broke it when it was lowered. While the gate was being fixed, trains had to blow its horn through the crossing. Also, the SACRT Gateless mast signal had its lights twisted more toward the sidewalk. More info below.

Crossing Info:

4 Signals, 2 Gateless, 2 Gated, 1 Lindsay Rail Cantilever, 1 WCH Cantilever, 2 General Signal Type 2 Electronic Bells, 1 NEG Electronic Bell, and 1 WCH Mechanical Bell. Signals by me are owned by SACRT and Bells ring through whole activation. Signals on other side are owned by UP and Bells ring till gates rise. New Gateless Mast Signal by Me has Newer Gen 12" Harmon Fading LEDs inside Safetran Light Frames, Safetran Brackets, Siemens Signal Base, Safetran Dwarf Signal for Light Rail, and GS Type 2 E-Bell. New Cantilever on my side has newer gen 12" Harmon Fading LEDs inside WCH Light Frames, WCH Brackets, and GS Type 2 E-Bell. New Cantilevers Gated Mast Signal has a pair of newer gen 12" Harmon Fading LEDs inside Safetran Light Frames, Safetran Brackets, Siemens Mechanism, Safetran/Siemens Counterweight Arms, and Siemens Signal Base. New Gateless Mast Signal on other side of tracks has 12" General Electric/WCH LEDs inside Safetran Light Frames, Safetran Brackets, Safetran Signal Base, and NEG E-Bell. Old Cantilever Mast on other side has 12" WCH 2nd Gen LEDs inside Safetran Light Frames, Safetran Brackets, and WCH Mechanical Bell. Cantilever on other side overhead has 12" UP LEDs inside Federal Signal/WCD Light Frames and WRRS Brackets. Cantilevers Gated Mast Signal has a short mast with UP Gate LEDs, Safetran Mechanism, Safetran Counterweight Arms, and Safetran Signal Base. The Tram Sign Signals in the middle of the tracks are owned by SACRT. One of them to the right has a Siemens Signal base and a Safetran Dwarf Signal for Light Rail. There are also two Yellow Flasher Signals that activate if there is car traffic stopped at railroad tracks.

Trams:

Train to Cosumnes River College Station - SACRT 122 Siemens Duewag u2a - SACRT 120 Siemens Duewag u2a https://www.youtube.com/watch?v = 5k0gWiwM6OA

Train Lines:

UPRR Sacramento Sub and SACRT Blue Line/Sacramento, CA.

Minneapolis Light Rail - Pedestrian Crossing

http://oldtrails.com/LightRail/Minneapolis/raillmin45.htm



Pedestrian RR crossing

https://www.reddit.com/r/CitiesSkylines/comments/327u6m/a pedestrian railroad crossing using dirt roads/#bottom-comments

MN at Grade Trail Crossing

The following treatments are considered applicable only to trail crossings with a high-speed crossed road:

- Painting the "standard" pattern (has less paint compared to other patterns) for the crosswalk (Treatment PMS-06) is only appropriate for high-ADT crossed roads as recommended by the Florida's Trail Crossing Design Handbook [6].
- Refuge islands (Treatments RI-01 through RI-03 and TRSS-10) are only necessitated by high travel speed or high traffic volume on the crossed road [17, 46]. Therefore, refuge islands are recommended only for trail crossings with high-speed or high-ADT crossed road.
- Pedestrian/bicycle signals (Treatment TSGB-01 and TRSS-06) are only recommended for installation at midblock trail crossings with a high-ADT crossed road [6, 71], as low-ADT roads usually do not require signals. The final recommendation should be based on the result of the signal warrant analysis.
- HAWK signals (Treatments TSGB-07 and TRSS-09) are only recommended for installation at midblock trail crossings with a high-ADT crossed road per Association of Pedestrian and Bicycle Professionals [71].
- RRFB and yellow flashing beacon related treatments (Treatments TSGB-06, TSGB-08, TRSS-11, TRSS-12, and TRSS-14) are only recommended for installation at trail crossings with a high-ADT crossed road per Association of Pedestrian and Bicycle Professionals [71].

http://www.dot.state.mn.us/research/TS/2013/201323.pdf

The requirement for extra warning time for pedestrians and motorists at grade crossings of high-speed rail operations is emerging as an additional issue for safety upgrades at such crossings. Currently, the typical warning time at crossings where pedestrians may be present is between 20 and 30 seconds for conventional-speed trains. In an environment with 110-mph hour trains, there would be a need to provide confirmation signals to the train crew and the onboard computer that the crossing is clear, which would likely require a warning time of at least 80 seconds. The question about how pedestrians will react to such extended warning times at pedestrian crossings remains to be determined. This is because, currently, most of the warning time is built into the time that the train occupies the crossing.

When high-speed trains begin to operate, most of the warning time is going to be built into the time for the train approaching crossing. Therefore, the an extended warning time would be necessary when the crossing remains unoccupied and a highspeed train could not be seen on the horizon. This situation will require reeducation of the public, especially in areas where crossings are very near to each other.

https://www.americantrails.org/fi les/pdf/FHWA-ICT-rail-pathcrossing.pdf (pg15)





Germantown/Empire Corridor South Amtrak Fencing Articles

https://www.hudsonvalley360.com/article/town-supers-call-suspend-amtrak-fencing-public-comment-period

https://theotherhudsonvalley.com/2018/04/15/amtrak-fences/

https://www.hudsonvalley360.com/article/amtrak-fence-opponents-rally-germantown

University of Memphis Railroad Right of Way to Become Safer, Greener

https://www.memphisdailynews.com/news/2016/jul/9/storied-university-of-memphis-railroad-right-of-way-to-become-safer-greener/

Florida's new high-speed train - 4th death so far

https://wtop.com/travel/2018/01/man-hit-by-floridas-new-high-speed-train-4th-death-so-far/

BOYNTON BEACH, Fla. (AP) — Bells clang and lights flash 15 seconds before the high-speed train zips through the crossing where Jeffrey King died. Five seconds later, Florida's new Brightline train is gone. Train travels at more than 70 mph through Boynton Beach.

Race Street Pedestrian Schuylkill River Trail Crossing

Schuylkill Banks/City of Philadelphia Parks & Recreation. At grade rail pedestrian electric gate rail crossing to reach river side that has boat launch and kayaks.

https://www.schuylkillbanks.org/landmarks/race-stcrossing

Railroad Pedestrian Crossings, University of Memphis

◆ 2017 ACEC Tennessee Small Projects Honoree ◆ As the University grew, so did its footprint which now includes buildings and parking on the south side of the Norfolk Southern Railway and Southern Avenue. With more than 3,000 parking spaces on the south side of the tracks and street and with classrooms on the north side, thousands of students are required to cross the rails by foot daily.





The University of Memphis wanted to make much safer, more attractive pedestrian crossings for the active railroad dividing the campus. The project created three pedestrian crossings, and the design included passive gates, pedestrian signals to flash and sound warnings of an approaching train, solar-powered lights to illuminate the crossings at night, and a sidewalk running parallel to Southern Avenue and the tracks. They have solar-powered lighting and flashing crossing lights and audible signals as a train approach. The crossings meet Americans with Disabilities Act standards, and they have gates designed to make pedestrians think before they cross.

Allen & Hoshall Engineers-Architects-Surveyors, (2016). Railroad Pedestrian Crossings, University of Memphis.

http://www.allenhoshall.com/portfolio/railroad-pedestrian-crossing-improvements-university-ofmemphis/



Trimet Installs Swing Gates & Fenced Switchbacks

Portland's regional transit agency has installed swing-out gates that biking advocates say will force people on bikes and trikes to stop or dismount in order push gates open to cross its new MAX tracks at SE 11th Avenue.

The city's Bicycle Advisory Committee later expressed its opposition to swing gates. The Pedestrian Advisory Committee did, too, because of the difficulty of getting through the gates while using a wheelchair or other mobility device. After that response, TriMet changed its plans at the 8th Avenue crossing and built fenced switchbacks. It also added a triangular concrete island placed on the south side of light rail tracks west of 12th. TriMet spokeswoman Mary Fetsch said in an email that those are "to help orient riders to look both ways before crossing.

Andersen, M. (2015, 12 23). TriMet installs Swinggates at 11th Ave. Rail Crossing.

https://bikeportland.org/2015/12/23/171072-171072

USDOT/FHWA – Safety: Pedestrian Safety Guide for Transit Agencies

Pedestrian Crossings of Rail Systems



In some areas, pedestrians may need to cross railroad or light rail tracks to access a transit station or stop. The design of these crossings is critical, as pedestrian/train collisions typically result in severe or fatal injuries. While most current standards and requirements for railroad at-grade warning systems are tailored to motor vehicle traffic, the Federal Highway Administration's *Railroad-Highway Grade Crossing Handbook*⁴⁴ provides guidance about pedestrian crossings. Additional guidance is provided by the MUTCD (see Part 8 and Part 10),⁴⁵ American Railway Engineering and Maintenance of Way Association (AREMA) *Signal Manual* (see Volume 1, Section 3),⁴⁶ and Code of Federal Regulations 49 (see Part 234).⁴⁷ Different standards apply to at-grade crossings of light rail tracks which often have no gates or warning devices.

Railroads shall provide a minimum of 20 seconds of warning time, with the active devices (bells, flashing lights, barricades, etc.) fully deployed five seconds before the arrival of a transit vehicle.⁴⁵ This gives a pedestrian a minimum of 15 seconds to complete crossing the tracks. Longer crossings may necessitate additional warning time built into the train detection system. In addition to time, the type of surface material used at the rail crossing must be designed in accordance with the ADAAG.

At-grade crossings with multiple tracks can present additional dangers to pedestrians who may assume that a warning has been deployed for a train that is currently stopped on one of the tracks, when in reality a second train is also coming on another track. Separate warnings may be necessary for these locations to help alert pedestrians of the full extent of the danger of the at-grade rail crossing.





Safety treatments that can be used at rail locations include:

- *Traditional gate/flasher/bell assemblies*—These devices are useful for warning pedestrians of oncoming vehicles, but all of should be considered "supplemental" and are typically deployed as part of an engineering decision or a diagnostic team review. While these traditional devices have been reliable and effective in the past, newer devices are entering the marketplace, such as digital voice announcements and strobe lights.
- Active or Passive Warnings—Active warnings, such as bells or whistles mounted near the crossing or on the train, are recommended at pedestrian at-grade crossings. Passive warnings, such as signs, can also be used.
- *Fencing*—Fences and other visible demarcations like landscaping, curbing and/or signage can be used to discourage pedestrians from crossing rail tracks in undesignated locations. Fencing in places such as Orange County's Metrolink Line, University of Memphis in Tennessee, and in Portland, Oregon has been installed at heights as low as 4 ft to 5 ft.
- *Grade-separated crossing* —Railroad tracks with high-speed and high-frequency train service may require pedestrian tunnels or overpasses to ensure the safety of crossing pedestrians.
- Surveillance, education, and enforcement—Enforcement can help reduce the number of pedestrians trespassing (e.g., walking on railroad tracks).

When considering what, if any, pedestrian warning is to be deployed, a thorough review of the environment around the crossing is recommended. This includes evaluating the frequency of rail service and number of tracks that are present. It is also important that the assessment include land uses and frequently-used pedestrian pathways in the vicinity of the railroad track. Railroads near schools, playgrounds, hospitals, retail centers and other major pedestrian generators may have a much greater need for safety treatments than a railroad track in a rural setting.

https://safety.fhwa.dot.gov/ped_bike/ped_transit/ped_transguide/ch3.cfm





APPENDIX D:

April, 1996, Matthew Atkinson, Pace Environmental Law Review, "On the Wrong Side of the Railroad Tracks: Public Access to the Hudson River"

Pace Environmental Law Review

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On the Wrong Side of the Railroad Tracks: Public Access to the Hudson River

Matthew R. Atkinson

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On the Wrong Side of the Railroad Tracks: Public Access to the Hudson River

MATTHEW R. ATKINSON*

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I. Introduction

The Hudson River estuary is one of the richest ecosystems on Earth. Millions of fish spawn there every year¹ in a tidal system that extends from New York Harbor to the Troy locks, a distance of some 150 miles. Although neglected until recently, the river's ecological health is now protected under an array of federal and state laws.²

The river has been a source for drinking water,³ fisheries, commercial navigation, and recreation. The river has also served as a convenient and inexpensive route for the railroads which were constructed along its shores in the mid to late 1800s.

This article considers the legal principles governing the state's and the railroads' obligation to provide river access, the factors threatening existing access, and militating against improved access.⁴ After considering the problem, this article recommends the codification of certain legal principles to protect and improve access to the tidal Hudson River.

Federal law that protects the river includes 16 U.S.C. §§ 1221-1226 (1988) (conservation of estuarine areas). Perhaps the most significant federal law that has helped restore the ecological health of the river is the Federal Water Pollution Control (Clean Water) Act, 33 U.S.C. §§ 1251-1387 (1988 & Supp. V 1993). The first suits against polluters of the Hudson River were brought in the late 1960s and early 1970s under the long ignored Refuse Act of 1899, 33 U.S.C. § 407 (1988). For a description of these cases, see BOYLE, supra note 1, at 285-88.

3. There are seven water districts that presently take drinking water from the Hudson River. See Marine Sanitation Devices; Proposed Regulation to Establish Drinking Water Intake Zones in Two Sections of the Hudson River, New York State, 60 Fed. Reg. 34,940 (1995) (to be codified at 40 C.F.R. pt. 140).

4. The railroads impact access from Spuyten Duyvil to the Troy locks on the east shore, and from West Haverstraw to the Town of Lloyd on the west shore.

^{1.} See Robert H. Boyle, The Hudson River: A Natural and Unnatural History 22, 131 (1979).

^{2.} See The Hudson River Estuary Management Program, N.Y. ENVTL. CONSERV. LAW § 11-0306 (McKinney Supp. 1995). Most of the river and shoreline has been designated a critical environmental area under the State Environmental Quality Review Act (SEQRA) regulations of the New York Department of Environmental Conservation (DEC), providing additional scrutiny of state agency actions, and agency actions of political subdivisions of the state, in the designated areas. See N.Y. COMP. CODES R. & REGS. tit. 6, § 617.7(c)(iii) (1996).

In 1846, the New York State Legislature authorized the incorporation of the Hudson River Railroad Company and the construction of its right-of-way along the eastern shore of the Hudson River as the railroad saw fit. By the end of 1851, service had begun between New York City and East Greenbush (the present terminal for Albany). The West Shore Railroad, affecting the western shore, was operational by the end of 1884. Under terms similar to the Hudson River Railroad Company, the West Shore Railroad was granted the shore of the Hudson River by statute and letters patent.⁵

As a result of the state's generosity, the tidal Hudson River is girded on the east and west by railroads. It is impossible to determine the number of railroad crossings that have been lost over the years,⁶ but the railroad title maps of 1917 give some indication. Along the Hudson River line (extending from Spuyten Duyvil to East Greenbush on the eastern shore), approximately 42% of the railroad crossings that impact access have been closed since 1917.⁷ Some of these crossings are or were private, however, private crossings often did and do afford public access. Also, undoubtedly myriad informal pedestrian crossings, which are not listed on the

^{5.} This railroad was built to compete with the New York Central and Hudson River Railroad (successor to the Hudson River Railroad Company). One year later, after a brief but furious rate war, the West Shore Railroad was bankrupt. The West Shore line may have been developed by straw men for the Pennsylvania Railroad Company, the great rival of the New York Central. The direct competition was settled when the New York Central bought the West Shore line and the Pennsylvania Railroad bought a competing line that the New York Central had under construction in Pennsylvania. See ARTHUR G. AD-AMS, THE HUDSON THROUGH THE YEARS 211-14 (1983). This was the heyday of railroad competition, unquestionably fed by New York's gift of approximately twenty-eight miles of the Hudson River shoreline.

^{6.} The railroad might keep records that could be tabulated.

^{7.} Excluded from this calculation are the urban areas of Greenbush, Hudson, Poughkeepsie, and Beacon, on the grounds that closure of some of the multiple crossings within an urban area are irrelevant to functional access. Also excluded are crossings north of Oscawana Island Park and south of Louisa Street (Charles Point) in the Town of Cortlandt, because the railroad is well inland through this segment. See MATTHEW R. ATKINSON, PACE ENVIRONMEN-TAL LITIGATION CLINIC, INC., THE RAILROAD, THE HUDSON RIVER AND PUBLIC AC-CESS: LEGAL OBLIGATIONS AND OPPORTUNITIES app. B (1995) (listing the crossings on the Hudson Line identified from the railroad title maps of 1917) (on file with the Pace Environmental Law Review) [hereinafter PACE REPORT].

maps, have been lost.⁸ Another indication of lost access are the many wharves and docks shown on the railroad maps which had no formal access as of 1917.

Despite the adverse impact of the railroad upon access, the Hudson River line has been designated as a future home for high-speed passenger rail service.⁹ The Hudson line was selected on the basis of cost.¹⁰ Two lines which previously provided passenger service between New York City and Albany, the West Shore¹¹ and Harlem¹² lines, were not considered. The selection of the Hudson line for high-speed service underscores the priority the state has assigned to high-speed rail service. The goal is to implement high-speed service at

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^{8.} Informal pedestrian crossings are still used, primarily by fishermen. Prior to the widespread pollution of the river, and the institution of electrified commuter rail service, fishing and swimming were undoubtedly more common and access obtained where convenient.

^{9.} See infra part II.A. for a discussion of plans for high-speed rail service in New York. Existing passenger service along the Hudson River is provided by Metro-North's commuter service (running as far north as Poughkeepsie) and Amtrak's service between New York City and Albany (with regular stops in Yonkers, Croton, Poughkeepsie, Rhinecliff, and Hudson).

^{10.} See New York STATE DEPARTMENT OF TRANSPORTATION, MOVING TO-WARD THE 21ST CENTURY: A PROPOSAL FOR HIGH-SPEED GROUND TRANSPORTA-TION IN THE STATE OF NEW YORK (1993) [hereinafter NYS PROPOSAL].

^{11.} The West Shore line is used by Conrail exclusively for freight and adversely impacts access to the river for approximately forty miles. The Hudson line adversely affects river access along most of its approximately 130 miles. From the standpoint of minimizing the adverse impacts of high-speed rail service to access to the Hudson River, redevelopment of the West Shore line is preferable.

^{12.} Metro-North provides commuter service as far north as Dover Plains on the Harlem line. The Harlem line used to extend to Chatham, where it connected with the Boston and Albany line, which is still used by Amtrak and Conrail.

the least $cost.^{13}$ The adverse impact on coastal access is secondary.¹⁴

The public trust doctrine is a legal principle that colors all other doctrines touching upon the issue of access. This doctrine holds that the river belongs to the people in common forever. A necessary corollary to the doctrine is the public's right to access public trust lands and waters. Public trust doctrine and railroad operations along the Hudson River are in conflict. Public policy has thus far reconciled the conflict in favor of railroad operations. In order to understand the conflict, and as a first step to reordering the priorities for its resolution, an understanding of the factors and legal principles that govern the issue of access is essential. To this end, this article is organized as follows: Part II provides background concerning high-speed rail proposals for New York and present efforts to implement the service. Part III examines public trust doctrine and other legal principles which govern access to the river. Part IV proposes several means to improve public access to the Hudson River. Part V concludes this article and suggests that the problem of public access is indicative of a broader historic negligence and the abuse of an extraordinary natural resource. Public access is an issue that is intrinsically linked to the need to obtain a greater understanding and appreciation of the functions and values that the river serves, has served, and may serve again.

^{13.} Inter-city high-speed ground transportation undoubtedly has benefits. For instance, it encourages core inner city redevelopment, NYS PROPOSAL, supra note 10, at 7, and reduces peripheral automobile dependent development around airports. See Philip Weinberg, Public Transportation and Clean Air: Natural Allies, 21 ENVIL. L. 1527, 1528-29 (1991). Finally, enhanced inter-city service is an effective way to reduce total automobile and air passenger miles, which are the most costly in terms of fuel and air pollution. See New YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY, NEW YORK STATE HIGH-SPEED SURFACE TRANSPORTATION STUDY § 4 (1994) (tables comparing energy use per passenger mile and external costs of existing air, auto, and rail services and high speed ground transportation alternatives) [hereinafter NYS STUDY]. See also Laurence E. Tobey, Costs, Benefits, and the Future of Amtrak, 15 TRANSP. L.J. 245, 278-80 (1987) (describing the positive impact Amtrak Metroliner service has had on airport and highway congestion).

^{14.} The state denies that high-speed rail service will adversely impact Hudson River access. *See infra* part II.D.

II. High-Speed Ground Transportation

A. The New York State Plan

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High-speed ground transportation consists of three types of service. Maglev, an experimental technology, is designed to attain speeds of approximately 300 miles per hour.¹⁵ Very High Speed Rail (VHSR) refers to traditional steel wheel and track technology operating at speeds between 150 and 200 miles per hour.¹⁶ Europe and Japan have had VHSR in reve-

^{15.} Maglev is an acronym for electro-magnetic levitation. Prototypes are currently being tested in Japan and Germany. NYS STUDY, supra note 13, at 1-26. Powered by magnets, the trains are also magnetically levitated to eliminate the friction of steel-wheel to rail technology. Designs have existed at least since the early decades of this century. See e.g., Electric-Flyer Makes 500 Miles an Hour - Traveling at 500 Miles Per Hour in the Future Electric Railway, THE ELECTRIC EXPERIMENTER (Mar. 1917), reprinted in The High-Speed Rail Development Act of 1993, and Current Initiatives in High-Speed Ground Transportation: Hearing Before the Subcomm. on Surface Transportation of the Senate Comm. on Commerce, Science, and Transportation, 103d Cong., 1st Sess. 19-21 (1993) [hereinafter Hearings].

^{16.} See NYS PROPOSAL, supra note 10, at 1-2. Potential maximum speeds are much higher. The French Train à Grande Vitesee (TGV) reached 320 miles per hour in one demonstration, and the German Intercity Express (ICE) train has been tested at 250 miles per hour. Taylor Moore, *High-Speed Rail Heading Down the Track*, 19 EPRI J. 25, 25 (Mar. 1994). The speeds are not practical for revenue service because, at such high speeds, the tracks are damaged. Optimal service is typically electrified and provided on a dedicated track. NYS STUDY, *supra* note 13, at 1-2. Germany's ICE trains, however, share the tracks with freight trains operating at 160 km/hr (100 mph). EUROPEAN CONFERENCE OF MINISTERS OF TRANSPORT, ROUND TABLE 87: HIGH-SPEED TRAINS 11, 13 (1992).

nue service for many years.¹⁷ High-speed rail operates at sustained speeds of 125 to 150 miles per hour.¹⁸

New York's inter-city ground transportation plan for the Empire Corridor¹⁹ is to gradually implement high-speed rail

19. The New York City to Albany to Buffalo route. In re National Railroad Passenger Corp. v. Harnett, 572 N.Y.S.2d 386, 388 (App. Div., 3d Dep't 1991).

^{17.} France first implemented VHSR with the TGV train set in 1981, operating at speeds of 165 miles per hour. Hearings, supra note 15, at 68 (statement of Larry E. Salci, Pres., Bombardier Corp.). The TGV now runs at speeds of 186 mph. NYS STUDY, supra note 13, at 1-15. The Eurostar commenced passenger service between Paris, Brussels and London (via the English Channel Tunnel, or Chunnel) on November 14, 1994. Chunnel Passenger Trains Makes Inaugural Run, N.Y. TIMES, Nov. 15, 1994, at A10. The Paris link to the Chunnel is planned to operate at 200 mph. Hearings, supra note 15, at 54 (statement of Joseph Vranich, Pres., High Speed Rail/Maglev Ass'n). Germany's ICE trains, introduced in 1992, run at up to 180 mph. Moore, supra note 16, at 25; Peter H. Stone, The Faster Track: Should We Build a High-Speed Rail System?, 11 AMERICAN PROSPECT 99, 100 (Fall 1992). In 1992, Spain introduced the Alta Velocidad Espanol (AVE) train operating at comparable speeds. Hearings, supra note 15, at 53 (statement of Joseph Vranich, Pres., High Speed Rail/ Maglev Ass'n). Italy also has train sets operating at speeds up to 186 mph. Moore, supra note 16, at 25.

Commercial VHSR service began with the Bullet Train in Japan during the late 1950s. The Bullet Train, operating between Tokyo and Osaka, now travels at speeds of up to 170 mph. Stone, *supra*, at 100. In April 1994, Korea signed a contract to implement the French TGV service between Seoul and Pusan. *Asia's Big New Train Set*, ECONOMIST, Sept. 7, 1994, at 67. Other Asian countries actively planning VHSR include China, Taiwan, Vietnam, and the Philippines. *Id.*

^{18.} NYS PROPOSAL, *supra* note 10, at 3 (planning for high-speed rail in the Empire Corridor to operate at speeds of up to 125 mph through incremental improvements); NYS STUDY, *supra* note 13, at 1-2 (defining "incremental rail" as designed to obtain speeds of up to 150 mph). Federal railroad law defines "high-speed" as rail service operating at speeds in excess of 125 mph. 45 U.S.C. § 831(n) (West Supp. 1994).

Only the New York City to Washington, D.C., portion of the Northeast Corridor presently offers what could be called high-speed rail service in the United States. The Federal Railroad Administration (FRA) is presently implementing improvements in the New York City to Boston segment to permit maximum speeds of 150 mph. 2 FeD. R.R. ADMIN., U.S. DEP'T OF TRANSP., THE NORTHEAST CORRIDOR TRANSPORTATION PLAN, B-2 app. B (1994) [hereinafter FRA PLAN] (issued in response to the Amtrak Authorization and Development Act of 1992, Pub. L. No. 102-533 § 4, 106 Stat. 3515, 3516 (1992) (codified as amended at 49 U.S.C. § 24903 (West Supp. 1995) (requiring the Secretary of Transportation to develop a program of improvements which would reduce the trip time between New York and Boston to three hours or less)).

and to encourage the development of maglev.²⁰ The existing infrastructure is suitable for high-speed rail, with several modifications. Tilt trains are capable of operating at speeds of up to 150 miles per hour on much of the existing track.²¹ The locomotives, however, will have to be self-propelled to save the cost of electrification.²² Grade crossings must also be eliminated where feasible.²³ The presence of freight and

23. See infra notes 46-47 and accompanying text.

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^{20.} See generally NYS PROPOSAL, supra note 10. The plan is based on a cost/benefit analysis that excludes VHSR. VHSR requires twin dedicated and electrified tracks with no grade crossings. NYS STUDY, supra note 13, at 1-2. To implement VHSR, the existing right-of-way in the Empire Corridor (from New York City to Buffalo) would require considerable straightening. Id. at 10. An aggressive realignment of the track would permit average speeds of 116 mph. Id. at 10-11. The projected capital cost, including new train sets and the electrification of the line, is \$7 billion. Id. at 23. On the other hand, improvement of new tilt train sets would permit high-speed rail service to average speeds of 99 mph (assuming top speeds of 150 mph). Id. at 10-11. The estimated cost of this high-speed service is between \$1 and \$2 billion. Id. at 23.

Maglev would average speeds of 187 mph and cost \$17 billion. *Id.* Despite the higher costs, maglev is attractive because it would cost no more to operate than VHSR, while drawing a much larger share of the existing ground and air passenger market. NYS PROPOSAL, *supra* note 10, at 7. New York also hopes that maglev will become a major industry located in state. *Id.* at 10.

^{21.} NYS STUDY, supra note 13, at 1-8. Tilt trains are a technology whereby the train leans into the curve to permit higher speeds without altering the superelevation of the track. Id. at 1-10. Superelevation, measured in inches, is the difference in elevation along a curve between the inside and outside track. Id.

^{22.} Electrification of the New Haven to Boston segment of the Northeast Corridor is the single greatest expense, \$360 million, FRA PLAN, *supra* note 18, at I-5 tbl. I-1 (in 1993 constant dollars), in the \$2 billion budget to provide highspeed service and expanded capacity between New York and Boston. *Id.* at V-8 to V-9 tbl. V-1 (itemizing costs to reduce trip time and to provide for increased service demands).

The locomotives also must have sufficient acceleration (weight to power ratio) to benefit from the top speeds obtainable. See NYS STUDY, supra note 13, at 1-25. On October 14, 1994, Amtrak began testing a non-revenue gas-turbine locomotive between Schenectady and Hudson that is expected to meet the required specifications. See New York State Department of Transportation Grant Application for the National High Speed Ground Transportation Technology Demonstration Project (Oct. 15, 1993); Petition for Waiver for Test Program National Railroad Passenger Corp. (Amtrak), 59 Fed. Reg. 39,013 (1994). The track will also require upgrading throughout much of the corridor.

passenger services on the same tracks requires the testing and implementation of superior vehicle control systems.²⁴

The capital cost is the single greatest obstacle to implementation of maglev service.²⁵ Maglev requires a completely new right-of-way, track, and train sets.²⁶ The right-of-way issue and cost necessitate government investment, probably both federal and state.²⁷ In addition to the competition for government transportation dollars, implementation of maglev, and to a lesser extent high-speed rail, is potentially adverse to the automobile and airline industries which have lobbied against government investment in high-speed ground transportation.²⁸

New York anticipated substantial federal assistance with the implementation of high-speed rail service in the Empire

27. Stone, supra note 17, at 101; Dean Patterson, Funding High-Speed Rail: There Has Got to be a Government Role, BOND BUYER, July 7, 1994, at 6.

28. Douglas Turner, High-Speed Rail Funding Package Discourages Maglev Supporters, BUFFALO NEWS, Apr. 29, 1993, at 7 (noting that two congressional foes of rail transit are strong supporters of the auto industry and highway spending); Next Stop, America?, BUS. WK., Apr. 19, 1993, at 106 (noting that some U.S. airlines, led by Southwest Airlines, oppose high-speed rail and maglev investment). Southwest Airlines played a significant role in defeating a VHSR system in Texas that required state subsidized financing. Patterson, supra note 27, at 6; Dan Charles, High-Speed Rail Dreams Not Becoming a Reality (National Public Radio, Transcript No. 1627-11, Oct. 6, 1994); Glen Biggs, High-Speed Rail Didn't Succeed This Time; But It's Still Necessary, HOUSTON POST, Sept. 18, 1994, at C3. See also NYS STUDY, supra note 13, at 3-21 to 3-27 (forecasting that maglev could take 84.7% of the market share for local airline service).

Airlines in Italy and Germany, however, view maglev and high-speed rail service as potentially supplemental to their core air service. Lufthansa operated a high-speed rail link between the Frankfurt and Duseldorf airports. The train is now operated by German Railway. Moore, *supra* note 16, at 27; *Hearings, supra* note 15, at 59-60 (statement of Joseph Vranich, Pres., High Speed Rail/Maglev Ass'n) (Aitalia Airlines commencing rail service from Rome airport to Florence and Naples). The use of airports as ground transportation hubs, however, diminishes the benefits of direct inter-city service. See *supra* note 13 (discussing the benefits of inter-city high-speed ground transportation).

^{24.} See infra note 41 and accompanying text.

^{25.} Maglev service from New York City to Albany would cost approximately \$7 billion. NYS PROPOSAL, *supra* note 10, at 18. *See also* Moore, *supra* note 16, at 20; Stone, *supra* note 17, at 101.

^{26.} Maglev probably would be constructed upon an elevated guideway within the NYS Thruway right-of-way. The cost of additional right-of-way has not been calculated. NYS STUDY, *supra* note 13, at 5-1.

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Corridor. It was estimated that implementation will cost nearly \$1 billion, of which almost three quarters would be supplied by the federal government.²⁹ This estimate of federal assistance was based upon Senator Moynihan's active support coupled with President Clinton's 1993 proposal for a \$1.3 billion high-speed rail development program.³⁰ President Clinton's proposal, however, was whittled to \$184 million for studies and demonstration projects over the next three years.³¹ No funds were allocated for the necessary capital improvements.³² Despite the lack of funding for highspeed rail service in general, the New York Department of

32. Federal support for high-speed ground transportation has diminished over the years. The High-Speed Ground Transportation Act of 1965, Pub. L. No. 89-220, 79 Stat. 893 (1965), authorized the Secretary of Commerce to undertake research and development of high-speed ground transportation and fund demonstration projects. *Id.* §§ 1 & 2, 79 Stat. 893, 893. A demonstration was held in 1967 on a section of the Northeast Corridor in which speeds of up to 165 miles per hour were reached. *Hearings, supra* note 15, at 65 (statement of Larry E. Salci, Pres., Bombardier Corp.).

Revenue service on the Metroliner began in 1970 and reached speeds of 125 miles per hour. Tobey, supra note 13, at 251. By this time, however, rail passenger service in general was in serious decline. Id. at 249-50. To ensure the survival of inter-city passenger rail service, Congress created Amtrak in 1970. Rail Passenger Service Act of 1970, Pub. L. No. 91-518, 84 Stat. 1327 (1970) (codified as amended at 49 U.S.C. §§ 24301-24315 (West 1994)). The Act required the Secretary of Transportation to make recommendations concerning opportunities for the provision of "faster service." 84 Stat. 1327, 1329. Amtrak was authorized to improve the infrastructure and rolling stock along the Northeast Corridor to improve high-speed rail service. Railroad Revitalization and Regulatory Reform Act of 1976, Pub. L. No. 94-210 §§ 701, 703, 90 Stat. 31, 119, 121 (1976) (codified as amended at 45 U.S.C. §§ 801, 851 (1988)). The Intermodal Surface Transportation Efficiency Act (ISTEA), Pub. L. No. 102-240, 105 Stat. 1914 (1991) (amended by Pub. L. No. 102-334, 106 Stat. 858, Pub. L. No. 102-338, 106 Stat. 1520, 1550, 1552, 1555, 1561-66, 1568, Pub. L. No. 102-580, 106 Stat. 4797, 4823 (1992) (codified as amended in scattered titles and sections)), was a comprehensive measure to improve all sectors of surface transportation. Section 1036 authorized the Secretary to promote and support the development of high-speed steel-wheel and maglev rail service. ISTEA § 1036(c)(1), 105 Stat. 1914, 1982 (codified at 49 U.S.C. § 309 (Supp. V. 1993)). Funding was intended to be generous, especially for maglev development, see ISTEA § 1036(d), 105 Stat. 1914, 1986 (allocating \$225,000,000 per annum through 1997), however, the following year funding was sharply curtailed. See

^{29.} NYS PROPOSAL, supra note 10, at 14.

^{30.} Id.

^{31.} The Swift Rail Development Act of 1994, Pub. L. No. 103-440, 108 Stat. 4615 (1994).

Transportation (DOT) continues to prepare for future service by fencing and seeking the closure of grade crossings.³³

B. The Regulatory Structure

The safe operation of railroads in the United States is under the general jurisdiction of the Department of Transportation (USDOT).³⁴ The USDOT is specifically responsible for coordinating all federal involvement with the development and implementation of high-speed ground transportation, including maglev.³⁵ The regulatory authority pertaining to safety is principally under the jurisdiction of the Federal Railroad Administration (FRA), an administration within the USDOT.³⁶

Grade crossing control devices are technically under the jurisdiction of the Federal Highway Administration

33. See e.g., PACE REPORT, supra note 7, at B-5 (closure plan in Castletonon-Hudson, replacing grade crossings with a pedestrian tunnel). Although the implementation of high-speed rail requires the elimination of most grade crossings, the policy for grade crossing elimination is longstanding and independent of high-speed rail. See infra part III.B.2.

34. See 45 U.S.C. §§ 1-43a, 421-445, 501-658, 801-855, 1101-1116 (1988 & Supp. V 1993); 49 U.S.C. §§ 101, 102 (1988 & Supp. V 1993).

35. 49 U.S.C. § 309 (Supp. V 1993).

36. Id. § 103; 49 C.F.R. § 1.4(e)(3) (1995). Many acts of Congress authorize the Secretary of Transportation to regulate the safety and operations of railroads, including the sponsoring of innovations in rail service. This authority is largely delegated to the FRA. See 49 C.F.R. § 1.49 (1995) (enumerating specific delegations). FRA regulations are published in 49 C.F.R. § 200-66 (1995). The FRA is specifically responsible for safety appliances, 49 U.S.C. §§ 20301-20306 (West Supp. 1995); signal systems, Id. §§ 20501-20505; locomotives, Id. §§ 20701-20703; accident investigations, Id. §§ 20901-20903; hours of service, Id. §§ 21101-07; and enforcement Id. §§ 21301-11.

Pub. L. No. 102-388, 106 Stat. 1520, 1535 (1992) (eliminating all maglev funding).

The Swift Rail Development Act of 1994, Pub. L. No. 103-440, 108 Stat. 4615 (1994), sets the low-water mark for federal sponsorship of high-speed ground transportation. The Act states that implementation is primarily the responsibility of local and state governments. *Id.* § 102 (5), 108 Stat. 4615, 4615. After acknowledging the success of the subsidized Metroliner service in the Northeast Corridor, the Act states that no "new" service should receive federal operating and maintenance subsidies. *Id.* § 102(3), (4), 108 Stat. 4615, 4615. Applicability of the provision to improve the existing service in the Empire Corridor is unclear. There are, however, federal matching funds available to the states for environmental assessments of proposed high-speed rail service. *Id.*

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(FHWA).³⁷ The FRA, however, regulates the safe operation of trains and establishes maximum operating speeds which are dependent, in part, on the grade crossing technology employed.³⁸ The FRA also sponsors demonstrations of train control systems, some of which are directly tied to grade crossings.³⁹ As a practical matter, therefore, the FRA and the FHWA must agree on grade crossing technology in order to implement high-speed rail service.⁴⁰

FRA regulations govern operating speeds of up to 110 miles per hour.⁴¹ Operating speeds in excess of 110 miles per hour are prohibited without the prior approval of the FRA.⁴² High-speed rail service, therefore, is regulated on a case by case basis.⁴³ FRA approval of speeds in excess of 110 miles per hour is dependent, in part, upon the presence of grade crossings and the types of controls employed.

Where speeds are anticipated to reach between 110 and 125 miles per hour, the FRA requires deployment of impenetrable barriers.⁴⁴ The FRA is officially requiring the elimina-

43. A carrier wishing to operate a train set at speeds in excess of 110 miles per hour must petition the FRA for an exemption or waiver. 49 C.F.R. §§ 213.9(c), 213.17(b) (1994). Waivers are granted at the discretion of the Railroad Safety Board. *Id.* §§ 211.7, 211.9, 211.41, 213.9(c), 213.17. The FRA, however, is drafting regulations applicable to high-speed rail service. *See* 59 Fed. Reg. 57,147, 57,149, 57,162 (1994) (stating that the FRA will promulgate safety rules in 1995 for rail service operating at speeds of up to 160 miles per hour); 60 Fed. Reg. 60,428-29 (1995) (determining that generic high-speed standards will not be promulgated, but that the FRA will address specific issues through appropriate rulemaking).

44. Letter from James T. McQueen, Associate Administrator for Railroad Development, Federal Railroad Administration, to Matthew R. Atkinson, Research Fellow, Pace Environmental Litigation Clinic, Inc. (Oct. 25, 1994) (on file with author). An impenetrable barrier is defined as one that can withstand the force of a 45,000 pound truck travelling at 45 miles per hour. The cost and technology required to deploy such a barrier essentially requires the closure of grade crossings, or a reduction of speed at grade crossings (compromising highspeed service). Telephone Interview with Donald A. Baker, Policy & Program Director, DOT (Sept. 15, 1994).

^{37. 49} U.S.C. §§ 104, 20134 (West Supp. 1995).

^{38.} Id. § 24308(d); 49 C.F.R. § 213.9(a) (1994).

^{39.} See, e.g., 59 Fed. Reg. 46,470 (1994).

^{40.} See generally Fed. R.R. Admin., Rail-Highway Crossing Safety, Action Plan Support Proposals (1994).

^{41. 49} C.F.R. § 213.9(a) (classifying track for maximum operating speeds).

^{42. 49} C.F.R. § 213.9(c) (1994).

tion of all grade crossings where speeds in excess of 125 miles per hour are obtained.⁴⁵ The FRA, however, has shown some flexibility in the Northeast Corridor concerning the necessity of closing grade crossings that affect coastal access.⁴⁶ The efficacy of the control technology employed will determine the maximum permitted speeds at grade crossings.⁴⁷

Although high-speed rail service must be approved by the FRA, the DOT coordinates and furthers the implementation of high-speed rail service with Amtrak and the FRA.⁴⁸ The DOT also has the crucial authority to close grade crossings.⁴⁹

47. Control technologies advise and control the train when there are hazards and limit vehicular and pedestrian access to the tracks. The FRA is authorized to fund demonstrations of these technologies sponsored by interested states. *See, e.g.*, Notice of Pre-Application Forum for Next Generation High-Speed Rail Program: Demonstration of High Speed Positive Train Control System, 59 Fed. Reg. 46,470 (1994) (encouraging applications for grants to test control systems). New York is expected to apply for these funds.

48. N.Y. TRANSP. LAW § 14-c (McKinney 1994).

49. See infra part III.B.2. (Grade Crossing Elimination). The DOT also regulates signage, crossing control technology, N.Y. COMP. CODES R. & REGS. tit.

^{45.} Letter from James T. McQueen, Associate Administrator for Railroad Development, Federal Railroad Administration, to Matthew R. Atkinson, Research Fellow, Pace Environmental Litigation Clinic, Inc. (Oct. 25, 1994) (on file with author).

^{46.} Grade crossings that implicate coastal access in the Northeast Corridor are in Connecticut. Connecticut law requires that "new or improved shoreline rail corridors" improve coastal access, or, at the most, have a negligible adverse impact upon access. Connecticut Coastal Management Act, CONN. GEN. STAT. ANN, § 22a-92(c)(1)(F) (West 1995). The Connecticut statute has influenced the FRA's application of its general obligation to close grade crossings in the Northeast Corridor under the Amtrak Authorization and Development Act of 1992, Pub. L. No. 102-533, 106 Stat. 3515 (1992) (codified at 45 U.S.C. § 650(a) (Supp. V 1993)) (closure mandate); 45 U.S.C. § 650(b) (allowing the FRA to develop alternatives to grade crossing elimination where safety and necessity permits), at least partly because state law governs actual closures. FRA PLAN, supra note 18, app. A, at 1. For example, the FRA considered closure of a crossing, the legality of which was in dispute, that provides access to a beach. Amtrak claims that the crossing is illegal and leads solely to land owned by the railroad. The FRA, nonetheless, recommends construction of a pedestrian tunnel to provide coastal access. Id. at IV-8 to IV-15. Another case involved a private marina open to the public, where Amtrak urged condemnation of either the crossing or the entire property. Id. at IV-135. The FRA decided that acquisition of the property might violate the Connecticut Coastal Management Act, id. at IV-137, and recommended the consideration of improved grade crossing control technology because grade-separation was not feasible. Id. at IV-117, IV-124, IV-131.

C. Specific Impacts on Hudson River Access

Public access to the eastern shore of the Hudson River is limited by the presence of the railroad right-of-way which is largely constructed on filled tidal and submerged lands.⁵⁰ To access the river, the public must cross the tracks. Where a crossing is grade-separated, access may be impacted by the financial cost of maintenance.⁵¹ Public safety and railroad liability have long favored the minimization of grade crossings.⁵²

The DOT intends to eliminate, improve, or replace each grade crossing on a case by case basis in consultation with whichever local government, or individual, controls the crossing.⁵³ In addition, the DOT intends to fence portions of the

The MTA is considering extension of commuter service from Poughkeepsie to Rhinecliff. METRO-NORTH, 1995-1999 STRATEGIC BUSINESS PLAN 25 (Aug. 29, 1994). The extension of commuter service, if implemented, would increase train traffic on the segment and thereby increase pressure to limit access through fencing and the closure of grade crossings. The MTA also is considering three Hudson River crossings under six options for expanded commuter rail service. METRO-NORTH COMMUTER RAILROAD, FEASIBILITY AND BENEFIT-COST STUDY OF TRANS-HUDSON, CROSS-WESTCHESTER AND STEWART AIRPORT RAIL LINKS (1994). The alternatives are the subject of an EIS now being prepared. Five of the six alternatives under consideration provide for commuter service on the West Shore line between West Nyack and Newburgh. Id. at S-2. Within the proposed service area, the railroad is adjacent to the river north of the Village of West Haverstraw to Newburgh, a distance of twenty-four railroad miles. Commuter service in this segment would adversely affect the already scarce public access unless the existing grade crossings were preserved. Although pedestrian bridges could be constructed at the grade crossings, vehicle bridges, which are essential to replace grade crossings which serve boat ramps, are impractical at many locations. For a list of the involved crossings, see PACE REPORT, supra note 7, at app. A.

51. N.Y. R.R. LAW § 93 (McKinney 1991) governs the allocation of costs for bridge maintenance. The inability of a local government to pay its share may result in the closure of the crossing. *See infra* part III.B.3.

52. See infra parts III.B.2. and III.B.6.

53. Telephone Interview with Donald A. Baker, Policy & Program Bureau Director, DOT (Sept. 14, 1994). The only state-wide body with whom the DOT

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¹⁷⁽B), pts. 220, 277, 278, 279 (1995), and railroad safety generally. N.Y. COMP. CODES R. & REGS. tit. 17(C), pts. 910-24 (1995).

^{50.} High-speed rail service will only affect the eastern shore. Nonetheless, grade crossings also pose a hazard to commuter rail operated by the Metropolitan Transportation Authority (MTA) on the eastern shore and to Conrail, operating on the eastern and western shores. Two MTA plans may adversely affect access to the river.

Empire Corridor where unauthorized crossings are a problem.⁵⁴ The fencing is intended to eliminate crossings not recognized by the DOT and to otherwise prevent casual access to the tracks.⁵⁵ Although the DOT represents the fencing and grade crossing closures as a deliberative and access neutral process, the number of crossings at stake is a matter of dispute, and there is a lack of evidence that closures generally are preceded by formal notice and hearings.⁵⁶

The Hudson River Access Forum (Access Forum) has identified forty-one grade crossings between Rensselaer and Croton-On-Hudson.⁵⁷ The Access Forum also identified twenty-three crossings, grade and grade-separated, that have

54. "To help control access to the right-of-way, 75 miles of fencing will be installed in urban areas and other key locations." NYS PROPOSAL, *supra* note 10, at 23. The preliminary budget for fencing is \$10 million.

55. See supra note 55. The elimination of even improved grade crossings is a high priority. See infra part III.B.2.

coordinates crossing closures is the Greenway Council. The Greenway Council is within the executive department, created pursuant to N.Y. ENVTL. CONSERV. LAW §§ 44-0101 to 44-0121 (McKinney Supp. 1995). The purpose of the council is to promote the "preservation, enhancement and development of the . . . scenic, natural, historic, cultural and recreational resources of the Hudson river valley while continuing to emphasize economic development activities" *Id.* § 44-0101.

Private crossings are not considered a substantial problem. The DOT believes that train dispatcher controlled locking gates are adequate to control these crossings. Telephone Interview with Donald A. Baker, Policy & Program Bureau Director, DOT (Sept. 14, 1994). Nonetheless, peak hour rail service, especially on the commuter lines, will limit private at-grade access substantially. In addition, when high-speed rail service is implemented, the burden of improving access may hinder transfers of private lands for public use, or transfers of public land to recreational use. See, e.g., PACE REPORT, supra note 7, at B-3 to B-4 (plan to create public park at Cow Island, Village of Castleton, in question because of agreement with railroad governing grade crossing).

^{56.} In response to a Freedom of Information Law (FOIL) request sent to the DOT asking for any information concerning grade crossing closures, formal proceedings were disclosed concerning only three crossings. See PACE REPORT, supra note 7, at app. B. Although archived files were not requested, the disclosed records dated from the early 1970s. The DOT probably ignores the closure of "unrecognized" or "private" crossings, regardless of historic public use.

^{57.} THE HUDSON RIVER ACCESS FORUM, BETWEEN THE RAILROAD AND THE RIVER: PUBLIC ACCESS ISSUES AND OPPORTUNITIES ALONG THE TIDAL HUDSON 137-44 (1989) [hereinafter Access Forum].

been closed.⁵⁸ A subsequent study by the Pace Environmental Litigation Clinic (*Pace Report*) agreed with the number of total closures, although the status of several crossings had changed.⁵⁹ The DOT has variously reported the number of grade crossings as fifteen between New York City and Stuyvesant,⁶⁰ nineteen between Croton-On-Hudson and Stuyvesant (a lesser distance), and twenty-seven between Croton-On-Hudson and Rensselaer (where the Access Forum identified forty-one).⁶¹ Neither the Access Forum nor the DOT indicates any grade crossings south of Croton.

The Pace Report identified informal pedestrian crossings, that were not considered by the Access Forum, which might have legal protection.⁶² Below Croton, the Pace Report identified five pedestrian crossings that are in regular use, or have been recently obstructed, where there is evidence of a public right to use the crossing.⁶³ Above Croton, six pedestrian crossings were identified that are used by the public.⁶⁴

The discrepancy in the grade crossing totals reflects the different ways in which grade crossings are being counted. Specifically, the DOT does not recognize the existence of informal crossings that exist in fact. In such situations, closures occur by railroad and/or DOT fiat where there is no public or private authority to defend the crossing.⁶⁵ As a consequence, the DOT discounts the impact of fencing and grade crossing closures on public access to the Hudson River.⁶⁶

- 62. The basis for legal protection is discussed infra parts III.C.2.-4.
- 63. See PACE REPORT, supra note 7, at app. A.
- 64. Id.

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65. See supra note 56.

66. An informal crossing long used for recreational purposes by the public lacks organizational representation. Fencing may appear as a *fait accompli* to individuals without the financial ability or motivation to lobby or litigate on behalf of their larger constituency. Private landowners may also permit informal coastal access. While public use alone does not create a public easement, nonetheless, if the DOT secures the railroad right-of-way, a *de facto* adverse

^{58.} Id. at 137-45. The study area of the Access Forum did not include Bronx County.

^{59.} PACE REPORT, supra note 7, at 30 and n.144.

^{60.} NYS PROPOSAL, supra note 10, at 22.

^{61.} New York State Department of Transportation, USDOT National Grade Crossing Inventory (July 6, 1994) (on file with author).

D. Procedural Review of Adverse Impacts to Access

New York has no law specifically addressing the impact of rail corridor improvements on coastal access.⁶⁷ The DOT, however, must comply with New York coastal policy and procedures as embodied in the Waterfront Revitalization of Coastal Areas and Inland Waterways Law (Coastal Law),⁶⁸ in addition to environmental review procedures under the State Environmental Quality Review Act (SEQRA).⁶⁹

The Coastal Law authorizes and encourages local governments to develop waterfront revitalization plans.⁷⁰ First, it requires state agencies to complete a Coastal Assessment Form (CAF) when planning an action in a coastal zone prior to making a determination of significance under SEQRA.⁷¹ Second, it requires agencies to act consistently with the policies of the law and with approved local revitalization plans to the "maximum extent practicable."⁷² Finally, it provides for

68. N.Y. EXEC. LAW §§ 910-22 (McKinney 1982 & Supp. 1996). The state Act was prompted by the federal Coastal Zone Management Act. 16 U.S.C. §§ 1451-1464 (1994). The federal Act encourages states to develop consistent coastal management programs to further the declared federal policy "to preserve protect, develop, and where it is possible, to restore or enhance, the resources of the Nation's coastal zone for this and succeeding generations" *Id.* § 1452(1). The encouragement takes the form of federal funding for approved programs. *Id.* §§ 1454-1455a. Once a program is approved, federal agency actions within an approved coastal zone must conform "to the maximum extent practicable" to the program. *Id.* § 1456(c)(1). Approved programs should provide for "public access to the coasts for recreation purposes." *Id.* § 1452(2)(D). For full discussions of the federal statute see Nicholas A. ROBIN-SON, ENVIRONMENTAL REGULATION OF REAL PROPERTY ch. 17 (1994); LINDA A. MALONE, ENVIRONMENTAL REGULATION OF LAND USE ch. 2 (1994).

69. N.Y. ENVTL. CONSERV. LAW §§ 8-0101 to 8-0117 (McKinney 1984 & Supp. 1996). Department of Environmental Conservation regulations, issued under the authority of § 8-0113, describe the types of agency actions that require the preparation of an Environmental Impact Statement (EIS). N.Y. COMP. CODES R. & REG., tit. 6, pt. 617 (1996).

70. See N.Y. Exec. Law § 915 (McKinney 1982 & Supp. 1996).

71. N.Y. COMP. CODES R. & REGS. tit. 19, § 600.4 (1994).

72. N.Y. EXEC. LAW §§ 916(b), 919(1) (McKinney 1982); N.Y. COMP. CODES

R. & REGS. tit. 19, §§ 600.4(c), 600.5 (1994). If a locality objects to a state

impact on public access will result. For further discussion of the public use of the public and private paths and roads, *see infra* parts III.C.3.-4.

^{67.} Such a law in Connecticut appears to have helped coastal access despite infrastructure improvements in the Northeast Corridor rail system. See supra note 46.

New York Secretary of State oversight of agency actions within coastal zones.⁷³ The governing policy is the requirement that an agency balance economic development with the beneficial use, conservation, and access to coastal resources.⁷⁴ Where the coastal lands are publicly owned, the policy is to provide access to such lands.⁷⁵

The DOT does not believe that the preparation of an Environmental Impact Statement (EIS) is required for the incremental implementation of high-speed service.⁷⁶ The DOT further states that its plans have been reviewed by the Department of State and the Department of Environmental Conservation and that these agencies do not believe a programmatic EIS is required.⁷⁷

73. N.Y. EXEC. LAW §§ 913(4), 916(1) (McKinney 1982). The New York Secretary of State promulgates regulations under the Waterfront Revitalization of Coastal Areas and Inland Waterways Law (Coastal Law). N.Y. COMP. CODES R. & REGS. tit. 19, pts. 600-603 (1994).

74. N.Y. EXEC. LAW § 912. The regulations enlarge upon the statutory public access policy as follows: "Protect, maintain and increase the levels and types of access to public water-related recreation resources and facilities so that these resources and facilities may be fully utilized by all the public in accordance with reasonably anticipated public recreation needs" N.Y. COMP. CODES R. & REGS. tit. 19, § 600.5(e)(1).

75. Id. § 600.5(e)(2).

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76. The DOT reasons that no acquisition of additional right-of-way is anticipated along the Hudson River and the alteration of signaling systems and an increase in the speed of service, standing alone, do not have environmental impacts. The DOT concedes that the removal of crossings, or the construction of grade-separated crossings, might require the preparation of site specific EISs. Telephone Interview with Donald A. Baker, Policy & Program Bureau Director, DOT (Dec. 5, 1994).

77. Id. The FRA also is not planning to prepare an EIS under the National Environmental Policy Act (NEPA). Telephone Interview with Mark Yachmetz, FRA Chief of Passenger Program Division (Sept. 27, 1994). While the FRA is the agency authorizing funds for the Northeast Corridor, no federal funds are presently available for capital projects in the Empire Corridor. At present, the only action FRA will take concerning the Empire Corridor will be the approval,

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agency action on the grounds that it is inconsistent with the local waterfront development plan, the agency's determination will be upheld provided that it can marshall "substantial evidence" to justify its decision. City of New Rochelle v. Public Service Comm'n, 541 N.Y.S.2d 49 (App. Div., 2d Dep't 1989) (upholding Commission's determination of where to locate transition station despite New Rochelle's contention that the action was inconsistent with its waterfront plan).

The DOT rests heavily on the assertion that it does not have a high-speed rail plan *per se*, but only a plan to "improve" the infrastructure, which will improve existing service, as well as facilitate high-speed service. This "no plan" plan appears designed to avoid environmental review.⁷⁸

The DOT's position also depends on its debatable assertion, without formal findings, that it will not diminish coastal access. Under the provisions of the Coastal Law and SEQRA, such an adverse impact would require an EIS, and any plan that affects access would require preparation of a CAF.⁷⁹ The DOT has not prepared one EIS or CAF in view of its closure plans.⁸⁰

The requirement of an EIS turns upon whether there may be the potential for an adverse environmental impact by

NEPA, 42 U.S.C. §§ 4321-70d (1988 & Supp. V 1993) (applicable to federal agency actions), sets a higher threshold for EIS review. Under NEPA, the agency action only requires EIS review if the action "will" have an impact. See 40 C.F.R. § 1508.13 (1995) (no environmental impact statement required when the action will not have a "significant effect on the human environment"). The FRA treatment of the Northeast Corridor improvements as requiring substantial environmental review stands in stark contrast to the DOT's "no plan" plan to make similar improvements without general environmental review, despite the lower threshold for New York State agencies to prepare an EIS than that of the FRA under NEPA. FRA environmental impact review to date for the Northeast Corridor has been general, NORTHEAST CORRIDOR IMPROVEMENT PROJECT PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT (1978), and site specific, FRA PLAN, supra note 18, at I-11 ("more than 160 site specific environmental reviews ... have been prepared by the FRA to address individual subcomponents of the project.").

79. An agency considering an action that might affect coastal access is required to submit a Coastal Assessment Form (CAF) to the Secretary of State before making a determination of significance under SEQRA. See supra note 71.

80. The DOT stated that no EISs or CAFs have been prepared concerning public access in response to a FOIL request sent by the author.

or disapproval, of high-speed service. The FRA does not consider its approval to have an environmental impact. *Id.*

^{78.} New York's "little NEPA," SEQRA, presumes that an environmental impact statement (EIS) must be prepared if the agency action "may" have the potential for a significant environmental impact. N.Y. COMP. CODES R. & REGS. tit. 6, § 617.7. The refusal to consider the high-speed rail implementation as a "plan" violates SEQRA's proscription of the segmentation of agency actions to avoid environmental review. *Id.* §§ 617.2(ag), 617.3(g)(1).

limitations on access.⁸¹ Without comprehensive study, the threshold question cannot be answered definitively (the purpose of an EIS review), but there are several indications that the implementation of high-speed service, or preparation for the same, will result in diminished access. The closures noted by the Access Forum and the *Pace Report*,⁸² the discrepancy in the number of actual crossings, and the plan to fence the corridor which will cut off DOT unrecognized access, including informal access, all point to a substantial likelihood that implementation of the DOT's plans will adversely affect access to the river.

- III. Substantive Law Affecting Access to the Hudson River
- A. The Public Trust Doctrine
 - 1. Introduction

The inalienable right of the general public to use coastal and navigable waters is the essence of the public trust doctrine. To insure the public right, the trust limits the private appropriation of lands under water clothed with the trust. The public trust doctrine applies to the public's right to access the Hudson River in two ways. The first issue is one of access. The corollary to the public trust doctrine is that the alienation of trust lands is unlawful if the right to use remaining trust lands and waters is unreasonably denied.⁸³ The second issue is the extent of the state's power to grant trust lands to railroads and the title such grants convey. These issues overlap because the grant of trust lands to railroads adversely affects public access to the remaining trust lands and waters of the Hudson River.

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^{81.} Noise and vibration are issues that also should be considered. The issues are important because of the proximity of the right-of-way to recreational locations and residential communities along the Hudson.

^{82.} See supra part II.C.

^{83.} The New Jersey Supreme Court indicated that it would go further and consider imposing a public easement over non-trust private lands where necessary to give meaningful effect to the right of the public to access and use trust lands and waters. See infra note 104 and accompanying text.

Granting over half the shoreline to railroads, to the complete exclusion of access, violates the right of the public to access the river and the sovereign responsibility of the state under the public trust doctrine.⁸⁴ Public trust doctrine, therefore, grafts limitations on the railroads' title to trust lands, as well as on the state's power to alienate the public's trust lands.

2. Background

a. Historical Antecedents

A recurring judicial question is whether the state has the power to extinguish the public trust in lands under water. The decisions of the New York courts considering this issue are inconsistent. A cause for this inconsistency is the historical and political context in which the public trust doctrine developed.

Although the doctrine reaches far into antiquity, the first codification is ascribed to the Roman Emperor Justinian in the sixth century A.D.⁸⁵ The Justinian Code declared that the use of the shore, sea, and rivers were common public rights.⁸⁶ Under Roman law, therefore, some lands were not susceptible to private ownership as we understand private ownership today.⁸⁷ The roots of the doctrine were in Greek natural philosophy⁸⁸ which subsequently served, perhaps unintentionally, as a check on the power of government, akin to a natural bill of rights.

The history of the doctrine under English common law began with the Magna Carta's limitation on obstructing navigation in rivers.⁸⁹ Thereafter, the doctrine developed piecemeal under the common law.⁹⁰ The principal modification of

90. Id.

^{84.} See infra part III.A.3.c.iii.

^{85.} DAVID C. SLADE, PUTTING THE PUBLIC TRUST DOCTRINE TO WORK 4 (1990); Note, The Public Trust in Tidal Areas: A Sometime Submerged Doctrine, 79 YALE L.J. 762, 763 (1970) [hereinafter Submerged Doctrine].

^{86.} SLADE, supra note 85, at 5.

^{87.} A fundamental element of private property is the owner's right to exclude others. See Kaiser Aetna v. United States, 444 U.S. 164 (1979).

^{88.} SLADE, supra note 85, at 4; Submerged Doctrine, supra note 85, at 763.

^{89.} Submerged Doctrine, supra note 85, at 765-67.

Roman law was a division of trust lands into two interests. Trust lands could be held privately, an interest termed the *jus privatum*, subject to public rights, termed the *jus publicum*.⁹¹ This division continues to confound the doctrine today.

The Crown held the *jus privatum* in a proprietary capacity, and the *jus publicum* in trust for the people.⁹² The difficulty with this division lies in the fact that Parliament came to represent the people. In recognition of the dual sovereignty, courts in New York often reasoned, at least in theory, that the Crown and Parliament could jointly extinguish the public trust.⁹³ Thus, the state, holding all sovereign powers, could do the same.⁹⁴ Of course, this analysis converted a public right into an alienable property interest, a conclusion at odds with the basic tenet of the public trust doctrine that some lands are not susceptible to private property ownership. The judiciary has served as an uncertain defender of the nonproperty interest in lands under water.

b. State Law Variations

There are three principal issues that affect the application of the public trust doctrine. The first issue involves determining what waters and lands are subject to the public trust. The second issue is the scope of the protected trust interests. The third issue is the extent to which a state may alienate trust lands.

The majority rule, and the general rule in New York,⁹⁵ applies the trust doctrine to all waters which are navigable in

95. See infra part III.A.3.a.

^{91.} SLADE, supra note 85, at 15; JACK H. ARCHER ET AL., THE PUBLIC TRUST DOCTRINE AND THE MANAGEMENT OF AMERICA'S COASTS 6-7 (1994).

^{92.} Lewis Blue Point Oyster Cultivation Co. v. Briggs, 91 N.E. 846, 847 (N.Y. 1910).

^{93.} People v. Steeplechase Park Co., 113 N.E. 521, 526-27 (N.Y. 1916); People v. New York and Staten Island Ferry Co., 68 N.Y. 71, 77 (1877); Lansing v. Smith, 4 Wend. 9, 21 (N.Y. 1829). But see Coxe v. State, 39 N.E. 400, 402 (N.Y. 1895) (stating that Parliament and the King jointly could not extinguish the public trust).

^{94.} Although New York courts have sometimes broadly asserted the proposition, an analysis of the holdings indicates that some limitations apply. See infra parts III.A.3.ii.-iii.

fact, to all tidal waters,⁹⁶ and to the lands under tidal waters.⁹⁷ The minority rule, which is followed in New Jersey,⁹⁸ Massachusetts,⁹⁹ and Mississippi,¹⁰⁰ only applies the trust doctrine to tidal waters. The majority of states, including New York, apply the public trust rights to state waters extending from the former seaward limit of the territorial sea (three nautical miles) to the mean high-tide line.¹⁰¹ Seven states apply the public trust only to lands seaward of the low-tide line.¹⁰²

In recent years, there has been an expansion beyond the traditional boundaries of lands and waters subject to the public trust. The New Jersey Supreme Court held that the general public must have reasonable access to the dry sand (nontidal) areas of municipal and quasi-municipal beaches.¹⁰³ The California Supreme Court has held that the state, as trustee of its public trust lands, may regulate the use of non-

98. Cobb v. Davenport, 32 N.J.L. 369, 378 (1867).

99. Ingraham v. Wilkinson, 21 Mass. (4 Pick.) 268, 270-272 (1826). See also Trustees of Hopkins Academy v. Dickinson, 63 Mass. (9 Cush.) 544, 546-548 (1852).

100. See Morgan and Harrison v. Redding, 11 Miss. 334 (1844); State ex rel. Rice v. Stewart, 184 So. 44 (Miss. 1938).

101. ARCHER, supra note 91, at 15-16.

102. Id. These states are Delaware, Maine, Massachusetts, New Hampshire, Pennsylvania, Virginia and Wisconsin.

103. Matthews v. Bay Head Improvement Ass'n, Inc., 471 A.2d 355, 363-66 (N.J. 1984) (indicating that the court also might recognize a public right to use private dry sand beaches where necessary to protect public use of the shore generally).

^{96.} Tidal character, usually, is defined by the influence of the oceanic tide, regardless of the salt content of the water. See SLADE, supra note 85, at 28. See also People v. Tibbitts, 19 N.Y. 523, 526 (1859); Attorney General v. Woods, 108 Mass. 436, 439 (1871). In North Carolina, however, the state's highest court held that the tide only refers to the ebb and flow of the sea, therefore, the tide only extends as far as the salt water line. Collins v. Benbury, 27 N.C. 118, 124 (1844).

^{97.} ARCHER, supra note 91, at 15-16. The Supreme Court held that the Great Lakes, although not tidal, were "navigable-in-fact" and, consequently, were subject to the public trust. Illinois Cent. R.R. v. Illinois, 146 U.S. 387, 435-36 (1892). See also infra notes 176-78 and accompanying text (describing New York rule concerning title to lands under navigable fresh water); SLADE, supra note 85, at 25 (ownership of lands under trust waters).

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navigable waters when such use affects public trust waters.¹⁰⁴

The second issue is the scope of the protected public trust doctrine interests. The core public trust uses are fishing, commerce and navigation.¹⁰⁵ However, many other uses are also recognized as protected public trust uses.¹⁰⁶ These include bathing, hunting, swimming, skating, cutting ice,¹⁰⁷ watering cattle, boating, and recreation.¹⁰⁸

In recent years, several states have recognized the preservation of trust land in its natural state as a protected public trust use.¹⁰⁹ Finally, at least three state courts have recognized the right of the public to preserve trust lands and waters simply to preserve the scenic beauty of the area.¹¹⁰

The power of the state to alienate the trust is the most divisive issue. Absolute conveyances of limited public trust

107. See Cummings v. Barret, 64 Mass. (10 Cush.) 186, 188 (1852) (holding that all ponds are public and are subject to reasonable uses including supplying ice houses); Hartford v. Town of Gilmanton, 146 A.2d 851 (N.H. 1958) (public trust interests include right to skate and cut ice).

108. But see Bell v. Town of Wells, 557 A.2d 168, 169 (Me. 1989) (excluding recreation as a recognized public trust right).

109. See, e.g., Marks v. Whitney, 491 P.2d at 380; Saxon v. Division of State Lands, 570 P.2d 1197 (Or. Ct. App. 1977) (holding that the public interest is better served by retaining a salt marsh in an unimproved, natural condition); Save Ourselves, Inc. v. Louisiana Envtl. Control Comm'n, 452 So. 2d 1152, 1158 (La. 1984) (stating that the Louisiana environmental regulatory framework is based, to an extent, on the public trust doctrine).

110. These three states are California, Pennsylvania, and Wisconsin. See National Audubon Soc'y v. Superior Court of Alpine County, 658 P.2d 709, 719 (Cal. 1983); Payne v. Kassab, 361 A.2d 263 (Pa. 1976); State v. Trudeau, 408 N.W.2d 337 (Wis. 1987).

^{104.} National Audubon Soc'y v. Superior Court of Alpine County, 658 P.2d 709 (Cal. 1983).

^{105.} ARCHER, supra note 91, at 23.

^{106.} See, e.g., Inhabitants of West Roxbury v. Stoddard, 89 Mass. (7 Allen) 158, 167 (1863) ("It would be scarcely be necessary to mention bathing, or the use of the waters for washing, or watering cattle, preparation of flax, or other agricultural uses, to all which uses a large body of water, devoted to the public enjoyment, would usually be applied"); Arnold v. Mundy, 6 N.J.L. 1, 12 (1821); Matthews, 471 A.2d at 358 ("The public's right to use the tidal lands and water encompasses navigation, fishing and other recreational uses, including bathing, swimming, and other shore activities."); Marks v. Whitney, 491 P.2d 374, 380 (Cal. 1971) (public trust easements include the right to fish, hunt, bathe, swim, and to use for boating and general recreation).

lands to private parties are generally permissible, provided the legislature expressly states its intent to extinguish the public's interest, the conveyance was made for a valid public purpose, and the affected lands are no longer suitable for public trust uses.¹¹¹ Some states recognize the conveyance of small tracts of trust lands to private persons for purely private purposes,¹¹² although such conveyances are contrary to the basic trust doctrine.¹¹³ One state suggests that the legislature is powerless to divest public trust lands absolutely.¹¹⁴

The public purpose used to validate conveyances of public trust lands relates to the lands and waters remaining, and not to any interest that would further the general common good of the public.¹¹⁵ In practice, however, the definition of public purpose has also encompassed uses unrelated to the water-related interests protected by the public trust doctrine.¹¹⁶

c. Federal Law

The public trust doctrine is principally defined by state law. A body of federal law, however, has developed in areas where there is otherwise federal competence. Federal law defines or limits the public trust doctrine under the Commerce Clause, treaty law, United States territorial law, when exer-

^{111.} See, e.g., Opinion of the Justices, 437 A.2d 597, 606 (Me. 1981); City of Berkeley v. Superior Court of Alameda County, 606 P.2d 362, 369 (Cal. 1980); Opinion of the Justices, 424 N.E.2d 1092, 1100 (Mass. 1981).

^{112.} See, e.g., People v. Steeplechase Park Co., 113 N.E. 521 (N.Y. 1916).

^{113.} See Illinois Cent. R.R. v. Illinois, 146 U.S. 387, 453 (1892). Cf. Steeplechase Park Co., 113 N.E. 521 (holding that a grant for beneficial enjoyment of the upland owner for consideration conveyed absolute title without deciding power of the legislature).

^{114.} See Vermont v. Central Vt. Ry., 571 A.2d 1128, 1133 (Vt. 1989) (suggesting that the legislature can grant no more than a fee simple conditional in trust lands to protect the public interest, but holding that because the grant in the instant case was conditional, the court need not decide if the legislature's power is so limited).

^{115.} People *ex rel*. Scott v. Chicago Park Dist., 360 N.E.2d 773, 779-81 (III. 1976).

^{116.} These uses include offshore oil production, Boone v. Kingsbury, 273 P. 797, 815-17 (Cal. 1928), and the assurance of marketability of title to structures built on filled-in trust lands, Opinion of the Justices, 423 N.E.2d 751 (Mass. 1981).

cising the power of eminent domain, upon the admission of states into the Union, and where a state's construction of the public trust gives rise to a claim by a property owner under the federal constitution.

i. Commerce Clause

Under the Commerce Clause, the federal government has regulatory jurisdiction over foreign trade and trade between the states.¹¹⁷ In *Gibbons v. Ogden*, the United States Supreme Court held that the authority over trade also conveyed to the United States jurisdiction over navigation.¹¹⁸ Therefore, state sovereignty over navigable waters is subject to federal regulation of navigation.¹¹⁹

All private property interests are subject to the federal regulation of navigable waters. This limitation on property interests is called the "navigational servitude."¹²⁰ Private claims inconsistent with the exercise of the servitude are not recognized.¹²¹ The Commerce Clause, therefore, limits state and private interests in trust lands and waters rather than defining the trust doctrine itself.

121. Id. See also, United States v. Willow River Power Co., 324 U.S. 499 (1945) (no taking where alteration of river's level to improve navigation adversely affected hydro-electric plant); Donnell v. United States, 834 F. Supp. 19 (D. Me. 1993) (no taking where Army Corps of Engineers suspended plaintiffs' nationwide permit and suspension resulted in loss of a property interest recognized under Maine law). Cf. Kaiser Aetna v. United States, 444 U.S. 164 (1979) (holding that the United States could not require a public easement over waters of a private marina under doctrine of navigational servitude without paying compensation where marina created from a Hawaiian fishpond deemed fast lands under Hawaiian law); accord Boone v. United States, 944 F.2d 1489 (9th Cir. 1991).

^{117. &}quot;The Congress shall have Power... To regulate Commerce with foreign Nations, and among the several states, and with the Indian Tribes." U.S. CONST. art. I, § 8, cl. 3.

^{118. 22} U.S. (9 Wheat.) 1 (1824).

^{119.} Illinois Central R.R. v. Illinois, 146 U.S. 387, 435 (1892).

^{120.} The navigational servitude generally relieves the government of the obligation to pay compensation when interfering with the private ownership of riparian, littoral, or submerged lands which, if not for the fact that navigable waters are involved, would require compensation under the Fifth Amendment. Boone v. United States, 944 F.2d 1489 (9th Cir. 1991).

ii. Treaty Law

In Summa Corp. v. California State Lands Commission,¹²² the Supreme Court construed the effect of federal patents conveying lands under the 1851 Act which settled land claims between the United States and Mexico pursuant to the Treaty of Guadalupe Hidalgo.¹²³ The Court held that California could not, in 1984, assert a public trust easement over tidal lands because it had failed to assert the interest when the land patents were settled.¹²⁴ The Court refused to inquire into the Mexican law then in effect, holding, as a matter of federal law, that the settlement of land claims under the Treaty did not permit any reservations by implication.¹²⁵

In sum, the Court held that the public trust interest of California, a sovereign interest, was subject to the procedure set forth in a federal statute to settle an obligation under international law. The procedure to settle land claims, however, was silent as to the applicable substantive law. The Court devised a rule of federal common law to displace the state trust doctrine without inquiring whether either Mexican law or principles of international law required such a result.¹²⁶

126. The Court stated that the federal question before it was the interpretation of the 1851 Act. Id. at 201 n.1. If under applicable Mexican law, the Mexican patents were subject to the public trust, the argument is weak that the transfer of the sovereign interest to California somehow violated the obligation of the United States to recognize the Mexican patents. The Court hints that a reluctance to disrupt settled property expectations, while undertaking an uncertain determination of 19th Century tidal boundaries and Mexican law, may have influenced its decision. See Summa Corp. v. California State Lands

^{122. 466} U.S. 198 (1984).

^{123.} Id. at 205. The Court acknowledged the principle that an ordinary federal patent purporting to convey tidelands located within a state to a private individual is invalid, since the United States only holds such tidelands in trust for the state. The federal patents issued in this case, however, were merely confirmatory of Mexican patents. Id. According to the terms of the 1851 Act, any claim adverse to a Mexican patent had to be presented within two years. Id. at 203. The failure of California to timely assert an interest in the lands, therefore, waived its claim of a public trust interest in the tidal lands. Id. at 209.

^{124.} Summa Corp., 466 U.S. at 209.

^{125.} Id. at 198.

iii. Eminent Domain

When the United States exercises the power of eminent domain and takes public trust lands under the Fifth Amendment,¹²⁷ the issue raised is whether the taking extinguishes the public trust. The applicable case law is inconclusive.

In United States v. 1.58 Acres,¹²⁸ the district court held that the United States may obtain fee simple title through condemnation of public trust lands¹²⁹ held by the Commonwealth of Massachusetts, subject, however, to the public trust.¹³⁰ The court found that in addition to acquiring title to the submerged lands, the federal government also became the substituted trustee of the public interest, an interest which remained undiminished, although the state's interest was wholly extinguished.¹³¹ Key to the holding was the finding that the United States, in its sovereign capacity, also holds submerged lands subject to the public trust.

In United States v. 11.037 Acres,¹³² the United States exercised its power of eminent domain over filled tidal lands that, under California law, had not lost their character as trust lands.¹³³ The District Court for the Northern District of California held that, under the Supremacy Clause, federal eminent domain completely extinguished the state's public trust easement.¹³⁴ The court expressly declined to follow United States v. 1.58 Acres, which it misconstrued as holding

128. 523 F. Supp. 120 (D. Mass. 1981).

129. Id. at 120-21.

130. 523 F. Supp. at 120. Massachusetts follows the minority rule that public trust lands do not include the intertidal shore, but extend seaward of the mean low water mark. See supra note 103 and accompanying text.

131. Id. at 124. "It must be recognized, however, that the federal government is as restricted as the Commonwealth in its ability to abdicate to private individuals its sovereign *jus publicum* in the land." Id. at 125.

132. 685 F. Supp. 214 (N.D. Cal. 1988).

133. Id. Under California law, only the legislature can authorize the extinguishment of the trust by filling submerged lands. Id. at 216 (citing City of Long Beach v. Mansell, 476 P.2d 423 (Cal. 1970)).

134. 685 F. Supp. at 217.

Comm'n, 466 U.S. 198, 201 n.1, 202 n.2 (1984) (noting that a recognition of California's public trust interest could affect title to thousands of acres).

^{127. &}quot;[No] private property [shall] be taken for public use, without just compensation." U.S. CONST. amend. V.

that the state's public trust easement survived condemnation.¹³⁵ The court did not consider whether the federal government took the lands subject to the trust doctrine as an element of federal sovereignty, nor did the court say whether the United States could extinguish the public trust in lands which had not been filled. Also, the court's reasoning did not suggest that the extinguishment of the public trust depended upon a distinction between filled and unfilled public trust lands.¹³⁶ The court did not address *City of Alameda v. Todd Shipyards*,¹³⁷ an earlier case in which the Northern District of California had followed *United States v. 1.58 Acres.*

In City of Alameda, one issue was whether the United States could convey condemned trust lands to a private party.¹³⁸ The district court explicitly adopted the reasoning of United States v. 1.58 Acres and held that the federal exercise of eminent domain over tidal lands did not extinguish the trust, but rather transferred the trust to the United States.¹³⁹ The court modified the rule, however, by holding that when the lands had been filled prior to the federal exercise of eminent domain, then the United States took the lands free from the public trust and could, therefore, convey them to a private party.¹⁴⁰

The rule in 1.58 Acres is that the public trust doctrine applies to lands acquired by the United States through eminent domain as a characteristic of federal sovereignty. Although 11.037 Acres appears to reject this rule, it misstates

^{135.} Id.

^{136.} The court rightly acknowledged that the trust doctrine, under California law, could apply to filled lands. *Id.* at 216.

^{137. 635} F. Supp. 1447 (N.D. Cal. 1986) [hereinafter Alameda II].

^{138.} Id. at 1450.

^{139.} Id.

^{140.} Id. For an earlier decision in the same case, see City of Alameda v. Todd Shipyard Corp., 632 F. Supp. 333 (1986) where the court applied California law to the alienation of trust lands generally. Id. at 336-37. On rehearing, however, the court carved out the federal common law exception to California law. 635 F. Supp. at 1450. Under the exception, the federal exercise of eminent domain, after trust lands had been filled, extinguished the public trust in those lands despite the fact that under California law, filling trust lands has no effect on their character as trust lands. The court provides no rationale for its choice of law.

the holding and only denies, on the facts, that the federal government takes filled trust lands subject to the trust. *City of Alameda* is consistent with both 1.58 Acres and 11.037 Acres. *City of Alameda* approves of the rule in 1.58 Acres while inventing a federal common law rule that filled trust lands are taken free of the trust. The cases may be harmonized by stating the rule as follows: the federal government takes trust lands subject to the public trust, but it is not constrained by the contours of a specific state doctrine, rather federal courts may develop federal doctrine where uniformity or federal interests are desirable.¹⁴¹

iv. Admission of States into the Union

Federal courts have jurisdiction to determine the interest granted to a newly admitted state, in addition to determining what lands are granted to that state.¹⁴² The principle which governs the determination is the equal footing doctrine. The doctrine, in pertinent part, states: "The new states have the same rights, sovereignty, and jurisdiction over [submerged

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^{141.} The prevailing federal jurisprudence treats public trust doctrine as a matter of state common law, see, e.g., Shively v. Bowlby, 152 U.S. 1, 26 (1894), however, where the federal government holds public trust lands in its sovereign capacity, the application of only federal law to such lands is reasonable. Of course, federal common law can adopt state law for most purposes. For example, the boundary of trust lands varies under state law. In 1.58 Acres, under Massachusetts law, the trust lands in question were below the low water mark. If federal common law adopted the majority rule, that trust lands begin at the mean high water mark, then the federal acquisition of lands in Massachusetts might engraft a public easement over what were previously wholly private lands. As a matter of public policy, therefore, federal common law might adopt the law of the state to determine the bounds of the public trust lands, while developing federal rules where uniformity is desirable, or perceived federal interests are served. In Alameda, the court's rule concerning the effect of eminent domain on previously filled lands presumably serves a perceived federal interest. None, however, is articulated and the only apparent interest is marketable title. The rule merely enabled the federal government to convert public trust lands, under California law, into fee simple uplands through the exercise of eminent domain.

^{142.} See Oregon ex rel. State Land Bd. v. Corvallis Sand & Gravel Co., 429 U.S. 363, 369-70 (1976) (citing Borax, Consol. v. Los Angeles, 296 U.S. 10 (1935)).

lands] as the original states."¹⁴³ In other words, "the federal government holds title to the beds of navigable waterways in trust for future States, to be granted to such States when they enter the Union and assume sovereignty on an equal footing with the established States."¹⁴⁴ Barring a superior federal interest, a newly admitted state is provided the broadest jurisdiction over submerged lands as was found in the original thirteen states; thereafter, the state is left to shape its own public trust doctrine.¹⁴⁵

The federal policy of allowing states latitude in determining the limits of state jurisdiction over public trust lands is illustrated by *Phillips Petroleum Co. v. Mississippi.*¹⁴⁶ In *Phillips Petroleum*, the United States Supreme Court considered whether states obtained title to tidal lands which were neither navigable nor adjacent to a navigable waterway. The issue was of first impression in Mississippi,¹⁴⁷ however, title to the land in question had been held privately, and property taxes paid upon it, since Mississippi was admitted into the Union in 1817.¹⁴⁸ The Court held that when Mississippi became a state, it took title to all tidal lands regardless of whether the surface waters, or adjacent surface waters, were navigable in fact.¹⁴⁹

v. Claims Under the Federal Constitution

Federal interpretation of public trust doctrine has also been shaped by landowners' constitutional claims. In *Illinois*

^{143.} Pollard's Lessee v. Hagan, 44 U.S. 212, 230 (1845). Congress codified this common law principle in 1953 with the passage of The Submerged Lands Act. 43 U.S.C. § 1311 (1994).

^{144.} Alaska v. United States, 754 F.2d 851, 853 (9th Cir. 1985) (quoting Montana v. United States, 450 U.S. 544, 551 (1981)). Whether a particular body of water is navigable for purposes of title is a federal question. *Id.*; Utah v. United States, 403 U.S. 9 (1971); Mobil Oil Corp. v. Coastal Petroleum Co., 671 F.2d 419 (11th Cir. 1982).

^{145.} See Shively, 152 U.S. at 1. Local custom and territorial law may shape the doctrine applicable to a state prior to its admission. *Id.* at 2.

^{146. 484} U.S. 469 (1988).

^{147.} Id. at 482.

^{148.} Id. at 492 (O'Conner, J., dissenting).

^{149.} Id. at 476.

Central R.R. v. Illinois,¹⁵⁰ the Court addressed the validity of a legislative grant to a railroad company of over 1,000 acres of submerged lands under Lake Michigan, comprising the major part of the harbor of Chicago.¹⁵¹ The Illinois Legislature rescinded the grant under subsequent legislation. The railroad contended that the rescinding legislation violated the Contracts Clause¹⁵² and the Due Process Clause¹⁵³ of the Constitution.

The Court upheld the rescinding legislation on the grounds that the legislature was powerless to make an irrevocable grant in the first place.¹⁵⁴ The Court noted that the legislature could grant limited quantities of trust lands "for the improvement of the navigation and use of the waters, or when parcels can be disposed of without impairment of the public interest in what remains"¹⁵⁵ Aside from such limited grants, "[t]he control of the State for the purposes of the trust can never be lost The State can no more abdicate its trust over property in which the whole people are interested, like navigable waters and soils under them, ... than it can abdicate its police powers in the administration of government and the preservation of the peace."¹⁵⁶ The original grant, therefore, was a mere license, revocable by the state.¹⁵⁷

Illinois Central R.R. does not squarely address whether it is federal or state law that limits the power of the legislature to alienate trust lands.¹⁵⁸ Presumably, the Court is de-

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^{150. 146} U.S. 387 (1892).

^{151.} Id. at 454.

^{152. &}quot;No State shall . . . pass any . . . Law impairing the Obligation of Contracts." U.S. CONST. art. I, § 10.

^{153. &}quot;[N]o State [shall] deprive any person of life, liberty or property, without due process of law." U.S. CONST. amend. XIV, § 1.

^{154. 146} U.S. at 453-54.

^{155.} Id. at 454.

^{156.} *Id*.

^{157.} Id. at 461-62. Divestment of the railroad's title and control of improvements made in reliance upon the license, however, may be compensable. Id. at 455.

^{158.} The Supreme Court has subsequently indicated, however, that the law applied in *Illinois Cent. R.R.* was the state law of Illinois. Appleby v. City of New York, 271 U.S. 364, 395 (1926). Certainly the state courts in Illinois have

claring binding state law under the Supremacy Clause. Under Contract Clause analysis, a federal court makes an independent determination of the state law that would otherwise govern the threshold issue of whether a contract is valid.¹⁵⁹ The United States Supreme Court may even reverse a state's highest court on a question of state law.¹⁶⁰ This extraordinary review is deemed necessary to ensure federal protection of the constitutional prohibition.¹⁶¹ A rare example of such a reversal is found in the public trust doctrine case of *Appleby v. City of New York*.¹⁶²

The facts of Appleby are complex, involving a series of valid regulations and enactments by New York City, New York State, and the United States Secretary of War, concerning title to submerged lands and placement of bulkhead lines.¹⁶³ In brief, the plaintiffs received a grant of submerged lands for beneficial enjoyment with the authority to wharf out to a bulkhead line approved by the Secretary of War, but later moved inland by New York City. As a result, the westerly portion of the submerged lands became unavailable for the construction of wharves. New York City, controlling the adjacent piers, had commenced dredging the lands, while permitting the mooring and docking of vessels on the surface waters. The plaintiffs brought an action to enjoin the dredging and the use of the surface waters. The New York Court of Appeals held that until the owner appropriated the submerged lands by the erection of docks, title was held subject

followed the rule of *Illinois Cent. R.R.*, see People ex rel. Scott v. Chicago Park Dist., 360 N.E.2d 773 (1977), nonetheless, the *Illinois Cent.* Court does not cite one Illinois case when deciding the public trust doctrine rule. 146 U.S. at 452-62.

^{159.} General Motors Corp. v. Romein, 503 U.S. 181, 187 (1992).

^{160.} The constitutional prohibition, however, only applies to state legislative enactments and not to judicial decisions. Tidal Oil Co. v. Flanagan, 263 U.S. 444, 451 (1924). State courts can only be reversed in conclusions concerning the effect of state legislation (whether it impairs a contract).

^{161.} Indiana ex rel. Anderson v. Brand, 303 U.S. 95, 100 (1938).

^{162. 271} U.S. 364 (1926) (rev'g 139 N.E. 474 (N.Y. 1923)).

^{163.} For the following facts see Appleby, 192 N.Y.S. 211, 213-19 (App. Div., 1st Dep't 1922).

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to public control of navigation; thus, the injunction was denied.¹⁶⁴

The Supreme Court conceded that state law controls the City's right to use and regulate granted lands and surface waters,¹⁶⁵ characterizing the issue as "the extent of the power of the State and city to part with property under navigable waters to private persons, free from subsequent regulatory control of the water over the land and the land itself."¹⁶⁶ The Court undertook an exhaustive survey of New York cases to deduce that under New York law, within limits,¹⁶⁷ the state may fully divest itself of the public interest in unappropriated submerged lands, at least where the fee is granted for valuable consideration.¹⁶⁸

167. The Court acknowledged limits under *Coxe* and *Illinois Cent. R.R.*, but noted that both cases admitted the right of the state to "surrender[], alienate[], or delegate[] [submerged lands]... for some public purpose, or some reasonable use which can fairly be said to be for the public benefit." *Id.* at 395 (quoting *Coxe*, 39 N.E. at 402 (citing *Illinois Cent. R.R.*, 146 U.S. 387)).

168. 271 U.S. 364, 382-83, 400-03 (1926) (distinguishing People v. New York & Staten Island Ferry Co., 68 N.Y. 71 (1877)). New York & Staten Island Ferry Co. held that legislation moving the pier line closer to shore prior to grantee's construction of a pier over patented submerged lands was not a taking since title was held subject to the sovereign's power to regulate navigation. Id. at 79. The Supreme Court in Appleby held that the patent in New York & Staten Island Ferry Co. was apparently a gift, and not for valuable consideration as in Appleby. Appleby, 271 U.S. at 383.

With exasperating imprecision, the Appleby court opined that the city had divested its public interest and "must be content with sailing over with boats as it finds it [in its natural condition]." *Id.* at 400. Of course, sailing over the lands *is* a public interest, an apparently retained interest which limits the holding, although not in a practical sense. If unable to dock vessels on the adjacent piers, the core public trust interest, commercial navigation, is extinguished in fact.

^{164.} Appleby, 139 N.E. 474, 476 (N.Y. 1923).

^{165. 271} U.S. at 380. The City's title to the submerged lands stems from colonial grants and by state legislation. The City thus stands in the shoes of the state and holds both the proprietary and sovereign title to the submerged lands. Langdon v. Mayor of New York, 93 N.Y. 129, 143-45 (1883).

^{166. 271} U.S. at 380. The federal questions involved the effect of the Secretary of War's bulkhead line, and the Contract Clause. *Id.* Thus, the power of the legislature was directly before the Court. *Cf.* People v. Steeplechase Park Co., 113 N.E. 521 (N.Y. 1916) (finding that the power of the legislature was not before the court when determining if a beneficial grant contained a reservation for public access).

The principal difficulty with *Appleby* is that the Supreme Court reversed the New York Court of Appeals on a question of state law that was of first impression. No prior Court of Appeals case had decided whether the legislature could or did alienate its control over public navigation, under a beneficial grant for valuable consideration, where the grantee had not appropriated the submerged lands by the construction of a wharf.¹⁶⁹ Consequently, the decision may be attacked on the ground that the Supreme Court did not decide what the New York law was, but what it believed was a better law.¹⁷⁰

The application of the Contract Clause to land grants is suspect in any case. See Douglas W. Kmiec and John O. McGinnis, The Contract Clause: A Return to the Original Understanding, 14 HASTINGS CONST. L.Q. 525, 539-40 (1987). Strict application of the Contract Clause to land grants would prohibit all legislative and common law development of private property rights, including zoning, nuisance, and pollution laws. If states utilize public trust doctrine to exert control over water related resources, limitations on private interests may be subject to federal oversight under takings and Contract Clause analyses. Such oversight could freeze the common law development of public trust doctrine in favor of private property rights. See, e.g., Lucas v. South Carolina Coastal Council, 112 S. Ct. 2886 (1992) (holding that coastal zone regulations that render private property valueless a taking unless justifiable under tradi-

^{169.} The Supreme Court principally relied upon Langdon v. Mayor of New York, 93 N.Y. 129; Williams v. Mayor of New York, 11 N.E. 829; and *Steeplechase*. All three cases involved grants for valuable consideration where the lands had been appropriated. *Steeplechase* only interpreted the grant and explicitly does not reach the issue of the legislature's power. *See infra* notes 235-47 and accompanying text.

^{170.} The Court stated that it made an independent determination, regardless of whether the question was governed by "issues of general or purely local [New York] law." Appleby, 271 U.S. at 380. Although the Court only cited New York cases, the decision may have been influenced by the Court's suggestion that its independent determination might consider "general" legal principles. For example, in a circuitous manner, the Court seems to find that the federal government's establishment of the bulkhead line somehow concludes the City's sovereign control of patented lands within the federal boundary. Id. at 401-402 (arguing that City had conveyed the right to build bulkheads or piers along with submerged lands somehow shown by analyzing the effect of the federal action). "General" federal common law was repudiated by Erie R.R. v. Tompkins, 304 U.S. 64 (1938). Indeed, the competence of the Court under the Commerce Clause is questionable. The Court stated that it was construing the effect of state legislation affecting the bulkhead line and pier locations. Appleby, 271 U.S. at 380-81. In fact, the entire decision concerned what property interest New York conveyed to the plaintiffs, a question of common law normally not reviewable under the Contract Clause. See supra note 160.

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3. Public Trust Doctrine in New York

a. Scope of the Public Trust Interest

In New York, the public trust doctrine applies to submerged lands and surface waters.¹⁷¹ The application to submerged lands results in a restriction on private use, whereas the application to surface waters permits public use. In either case, the doctrine protects the right of the public to use surface waters for navigation.

Public trust lands in New York include all lands washed by the tides and certain lands under navigable non-tidal waters. Unless previously granted, title to all lands subject to the tide is vested in the state.¹⁷² Title to lands under fresh water depends upon the status of the water body.¹⁷³ Where rivers and lakes form the boundaries of the state, title to the submerged lands beneath them is vested in the state.¹⁷⁴ In addition, title to the lands beneath the Mohawk River and the non-tidal upper Hudson River is also vested in the state.¹⁷⁵ Title to all other purely intrastate rivers, streams, ponds, and smaller lakes is presumptively vested in the adjacent upland owners.¹⁷⁶ Title to large intrastate lakes with a history of public navigation may be vested in the state.¹⁷⁷

175. Id. at 202.

176. See id. at 203 (streams); and Waters of White Lake, Inc. v. Fricke, 123 N.Y.S.2d 400, 403 (App. Div., 3d Dep't 1953) (ponds and lakes).

177. The division between state owned and riparian owned lakes is uncertain and case specific. Granger v. City of Canandaigua, 177 N.E. 394, 396 (N.Y. 1931). The Court of Appeals has held that the state holds title to Lake Canandaigua, *id.*; and Lake George, People v. System Properties, Inc., 141 N.E.2d 429 (N.Y. 1957). The courts have also avoided deciding the issue. See City of Ge-

tional state nuisance law, suggesting that innovations in state nuisance law would result in a taking).

^{171.} John A. Humbach, Public Rights in the Navigable Streams of New York, 6 PACE ENVIL. L. REV. 461, 465-66 (1989). For a comprehensive summary of case and statutory law concerning the public interest in navigable waters in New York, see id.

^{172.} See Coxe v. State, 39 N.E. 400 (N.Y. 1895). As with all coastal states, New York's jurisdictional limit is three miles. See supra note 101 and accompanying text.

^{173.} The terminology is not exclusive because some tidal water, such as the upper Hudson River, is fresh although subject to tides.

^{174.} Fulton Light, Heat & Power Co. v. State, 94 N.E. 199, 202-03 (N.Y. 1911).

Beyond navigation, the scope of protected public interests turns on the ownership of the submerged lands and the historic patterns of use.¹⁷⁸ Public rights are most restricted where navigable-in-fact waters lie over non-trust lands.¹⁷⁹ Although these waters are subject to an easement for public navigation, any other public interest is questionable.¹⁸⁰ Where trust lands are granted to the upland owner, the public retains the right to fish and navigate over the granted lands.¹⁸¹ The broadest public rights are in waters above trust lands held by the sovereign. These rights include navigation, swimming, bathing, fishing, hunting and recreation.¹⁸²

The traditional test of navigability is whether the surface water has a history of navigation for commercial purposes. Navigation includes the use of the stream for transporting logs, provided the stream was capable of floating logs in its natural state. The test has recently been broadened. Use of a stream on a single occasion for recreational purposes, such as canoeing, may result in a finding that the stream is navigable in fact, even where the occasional portage is required. See Adirondack League Club, Inc. v. Sierra Club, 615 N.Y.S.2d 788 (App. Div., 3d Dep't 1994).

179. Where the riparian owner presumptively holds title to the stream or lake bed.

180. See Andrews, supra note 177, at 277.

181. Slingerland v. International Contracting Co., 61 N.E. 995, 998 (N.Y. 1901) (holding that the state is powerless to grant exclusive fishing rights to tidal portion of the Hudson River). Shellfishing rights, however, may be granted or implied in a grant of submerged lands because the shellfish are attached to the granted land. See Martin v. Waddell, 41 U.S. 367 (1842); Lewis Blue Point Oyster Cultivation Co. v. Briggs, 91 N.E. 846 (N.Y. 1910).

182. See Long Sault Development Co. v. Kennedy, 105 N.E. 849 (N.Y. 1914) (navigation); Stewart v. Turney, 197 N.Y.S. 81 (App. Div., 4th Dep't 1922) (hunting); Adirondack League Club, Inc., 615 N.Y.S.2d 788 (App. Div., 3d Dep't 1994) (recreation); Barnes v. Midland R. Terminal Co., 85 N.E. 1093 (N.Y. 1908) (bathing, fishing, boating). These interests have been given some statutory protection. See infra note 200.

neva v. Henson, 95 N.E. 1125 (N.Y. 1911) (regarding Seneca Lake); Stewart v. Turney, 197 N.Y.S. 81 (App. Div., 4th Dep't 1922) (regarding Lake Cayuga). Former Associate Judge William S. Andrews of the New York Court of Appeals suggested a system based upon size and use to determine the title to lake beds, see William S. Andrews, Lands Under Water in New York, 16 CORNELL L.Q. 277 (1931), that the Court of Appeals seemed to approve in Granger, 117 N.E. at 396.

^{178.} In England, the common law source of the doctrine in the United States, tidal and navigable in fact waters were essentially synonymous. The navigability-in-fact test in the United States was an innovation arising from the presence of major non-tidal lakes and rivers typically used in commerce. See Barney v. Keokuk, 94 U.S. 324, 336-38 (1876).

b. Grants of Lands Under Water

i. Statutory History

In 1786, the legislature created the Board of Land Commissioners (Board) to facilitate the distribution and sale of state lands.¹⁸³ In relevant part, the act authorized the Board to grant submerged lands beneath "navigable rivers, as the [Board] shall deem necessary to promote the commerce of this State."184 The act restricted grants to the owners of the adjacent uplands.¹⁸⁵ The lands that the Board was authorized to convey increased to include lands underlying navigable lakes,¹⁸⁶ the Hudson River across from New Jersey,¹⁸⁷ and submerged lands both around Long Island and along the coast of Westchester County.¹⁸⁸ The Board was also given

184. 1786 N.Y. Laws at 338.

185. Id. The statute still restricts grants or leases of submerged lands to the upland owner, with certain exceptions. The Board may convey jurisdiction of state owned lands to other state agencies for the "purpose of protecting environmentally sensitive lands," regardless of who owns the appurtenant uplands. N.Y. PUB. LANDS LAW § 75(7)(a) (McKinney 1993). See also infra note 189 (regarding leases to non-upland owners). The restriction does not apply to railroads, who receive lands under separate statutory provisions. See infra part III.A.3.b.ii.

186. N.Y. Pub. Lands Law § 67 (Packard and Van Benthuysen 1829).

187. Id. § 68 (subject to the prior rights of New York City).

188. Act of May 6, 1835, ch. 232, 1835 N.Y. Laws 276 (codified at N.Y. Pub. L. Law § 75(6) (McKinney 1993) (excluding lands within New York City). The submerged lands surrounding New York City had originally been devised to the city under colonial grants, subsequently affirmed by the legislature. Langdon v. Mayor of New York, 93 N.Y. 129, 134-38 (1883).

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^{183.} Act of May 5, 1786, ch. 67, 1786 N.Y. Laws 334. The Board consisted of the governor, the lieutenant governor, the speaker of the assembly, the secretary of state, the attorney general, the treasurer, and the state auditor (comptroller). Id. Over the years, the composition of the Board was altered. The state surveyor became a Board member. See Act of Apr. 6, 1813, ch. 74, § 1, 1813 N.Y. Laws 292, 292 (providing that the state surveyor and at least two other commissioners would constitute a quorum). In 1962, submerged lands were placed under the jurisdiction of the commissioner of general services. The statute was altered to provide the commissioner with the powers previously held by the Board. Act of Apr. 19, 1962, 643, 1962 N.Y. Laws 2917. For purposes of consistency, the term Board will be used in this comment, notwithstanding that, after 1962, the powers of the Board were vested in the commissioner.

the discretion to make grants for a period of years (leases) and lesser interests.¹⁸⁹

Amendments affecting the Board's power reflect a conflicted policy of promoting economic development while preserving a public interest in trust lands. For example, one amendment authorized the Board to convey to the holder of patented submerged lands all remaining interest the state may have in the lands.¹⁹⁰ Such a conveyance settled title and encouraged development. Somewhat inconsistently, the Board was admonished to impose conditions on such a conveyance as will protect the interests of the state.¹⁹¹ Where other grants require prior public notice,¹⁹² a grant under this provision, purportedly extinguishing any remaining interest held by the state, is exempt from public notice requirements.¹⁹³

In 1835, the use of tidal lands was limited to the erection of docks to promote water borne commerce.¹⁹⁴ No case law successfully enforced the restriction, however, and it was repealed by 1909.¹⁹⁵ In 1850, the Board was empowered to

191. Id.

192. N.Y. PUB. LANDS LAW § 77 (McKinney 1993). The notice requirement dates from 1786. Act of May 5, 1786, ch. 67, 1786 N.Y. Laws 334, 338.

193. N.Y. PUB. LANDS LAW § 75(11) (McKinney 1993). Grants of lands below non-navigable waters are also exempt from notice requirements. Id. § 75(12).

194. Act of May 6, 1835, ch. 232, 1835 N.Y. Laws 276 (for a subsequent history, see infra note 195) ("This act . . . shall confer upon the [Board] no other power than to authorize the erection of such dock or docks, as [it] shall deem necessary to promote the commerce of this state, and the collection of [fees] from persons using such dock or docks").

195. N.Y. PUB. LANDS LAW § 111 (J. B. Lyon Co. 1909) (referring to annexed Schedule of Laws Repealed, at page 3177 (repealing Laws of 1835 ch. 232)). The restriction is also omitted from N.Y. PUB. LANDS LAW § 70 (Banks and Brothers 1896), but appears in N.Y. PUB. LANDS LAW §§ 67-71 (Banks and Brothers 1889) as an addendum to those sections; See also N.Y. PUB. LANDS

^{189.} N.Y. PUB. LANDS LAW § 75(6) (McKinney 1953) ("The [Board] may grant in perpetuity or otherwise"). The statute now permits the Board to make "grants, leases, easements, and lesser interests, including permits" N.Y. PUB. LANDS LAW § 75 (McKinney 1993). The most recent innovation allows the Board to make leases, with the consent of the upland owner, with any party. Act of Aug. 2, 1994, ch. 703, § 2, 1994 N.Y. Laws 1722, 1722-23 (codified at N.Y. PUB. LANDS LAW § 75(7)(a) (McKinney 1993 & Supp. 1995)).

^{190.} Act of Apr. 6, 1949, ch. 595, 1949 N.Y. Laws 1360 (codified at N.Y. PUB. LANDS LAW § 75(11) (McKinney 1993).

make grants "for the purpose of beneficial enjoyment."¹⁹⁶ A restriction incorporated in 1894 prohibited grants that interfered with the rights of the Hudson River Railroad Company.¹⁹⁷

Although the Board frequently conditioned grants of land to protect public interests,¹⁹⁸ the statute was silent on the issue for over one hundred years. In 1917, however, the Board was required to periodically investigate whether conditions to grants, that had a fixed time for compliance, had been met by the grantee.¹⁹⁹ It was not until the amendments of 1992 that the Board was directed to protect the public interest in submerged lands.²⁰⁰

196. Act of Apr. 10, 1850, ch. 283, 1850 N.Y. Laws 621. Agriculture was included as a permitted use under the Public Lands Law, 1909 N.Y. PUB. LANDS LAW § 75(4) (J.B. Lyon Co. 1909).

197. N.Y. PUB. LANDS LAW § 70 (Banks and Brothers 1896).

198. See, e.g., Barnes v. Midland R.R. Terminal, 85 N.E. 1093 (N.Y. 1908) (grant prohibiting obstruction of public access along the shore).

199. Act of May 2, 1917, ch. 308, 1917 N.Y. Laws 1053 (current version at N.Y. PUB. LANDS LAW § 78 (McKinney 1993)) (requiring the attorney general to commence actions to annul grants where the conditions had not been fulfilled). See also N.Y. PUB. LANDS LAW § 75(7)(g)(ii) (Board to take enforcement action against lessees, easement holders, or permittees in violation of conditions, or refer to the attorney general, at the request of the Commissioner of the Department of Environmental Conservation).

200. Act of Aug. 7, 1992, ch. 791 § 3, 1992 N.Y. Laws 2168, 2169 (codified at N.Y. PUB. LANDS LAW § 75(7)(a) (McKinney 1993)) ("the commissioner shall, upon administrative findings, and to the extent practicable, reserve such interests or attach such conditions to preserve the public interest in the use of stateowned lands underwater and waterways for navigation, commerce, fishing, bathing, recreation, environmental protection and access to the navigable waters of the state"). See also N.Y. PUB. LANDS LAW §§ 75(7)(b), (c), (f) (containing provisions to protect the public interest in submerged lands).

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LAW § 84 (Banks and Brothers 1875) and N.Y. PUB. LANDS LAW § 84 (Banks and Brothers 1859). The Court of Appeals stated that the restriction was repealed by the amendment to the Public Lands Law, Act of Apr. 10, 1850, ch. 283, 1850 N.Y. Laws 621, that permitted conveyances for beneficial enjoyment. In re Water Front on Upper New York Bay, 157 N.E. 911 (N.Y. 1927). Neither the language of the amendment, nor the statutory history, offers any support for the court's assertion. The subsequent authorization for beneficial enjoyment grants is not inconsistent with application of the restriction to non-beneficial enjoyment grants. Lacking other evidence, it can be concluded that the restriction was repealed between 1889 and 1894. See also infra notes 221-23 and accompanying text for an analysis of the judicial interpretation of the restriction.

ii. Railroad Grants

The Hudson River Railroad Company²⁰¹ was formed under legislative authorization in 1846.²⁰² The act authorized the railroad to lay out its line, take possession of necessary lands and waters, and to construct its road along the eastern shore of the Hudson River.²⁰³ Although the act provided the means and authority for the railroad to take possession of public property,²⁰⁴ the act did not authorize the railroad to take title to lands under water,²⁰⁵ nor did the act purport to convey any such lands.²⁰⁶ After the railroad was constructed, its interest in the submerged lands, therefore, was in the nature of an implied license until it obtained grants from the Board.²⁰⁷

Under the General Railroad Act of 1850,²⁰⁸ all railroads formed under, or prior to the act, were authorized to obtain grants of public lands.²⁰⁹ The act failed to mention any right of the railroads to obtain submerged lands in particular. Nonetheless, the New York Court of Appeals construed the act as authorizing the Board to convey submerged lands to railroads, notwithstanding that they are not owners of the adjacent uplands, because any other interpretation would frustrate the purpose of the act.²¹⁰ The grants, however, do not cut off the rights of upland owners. Submerged lands

207. Id.

^{201.} The Hudson River Railroad was consolidated with the New York Central in 1869 to form the New York Central & Hudson River Railway Company. New York Cent. & Hudson River R.R. v. Aldridge, 32 N.E. 50 (N.Y. 1892).

^{202.} Act of May 12, 1846, ch. 216, § 1, 1846 N.Y. Laws 272, 276, amended by Act of Feb. 10, 1848, ch. 30, 1848 N.Y. Laws 39.

^{203.} Act of May 12, 1846, ch. 216, §§ 1, 4, 9-13, 1846 N.Y. Laws 272, 272-79; Act of Feb. 10, 1848, ch. 30 §§ 1-4, 1848 N.Y. Laws 39, 39-43.

^{204.} Act of May 12, 1846, ch. 216, §§ 9-13, 1846 N.Y. Laws 272, 275-79; Act of Feb. 10, 1848, ch. 30 §§ 1-5, 1848 N.Y. Laws 39, 39-43.

^{205.} The Board was generally prohibited from conveying submerged lands except to the adjacent upland owner. See infra note 358 and accompanying text.

^{206.} Aldridge, 32 N.E. at 51.

^{208.} Act of Apr. 2, 1850, ch. 140, 1850 N.Y. Laws 211.

^{209.} Id. §§ 25, 49, 1850 N.Y. Laws 211, 223, 235.

^{210.} Saunders v. New York Cent. & Hudson River R.R. Co., 38 N.E. 992, 995 (N.Y. 1894).

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that the railroad lawfully fills do not become uplands with attached riparian rights.²¹¹

The successor in interest to the Hudson River Railroad Company, The New York Central and Hudson River Railroad Company, acquired the lands under water belonging to the State of New York under letters patent in 1873.²¹² This omnibus patent referenced the survey maps filed with the several counties through which the railroad passed.²¹³ The language of the patent conveys unrestricted title, however, the courts have construed the railroad's title in harmony with applicable statutes and common law to limit title to something in the nature of an easement.²¹⁴ The consideration was also nominal, \$500.00 for approximately 60% of the eastern shore of the river.

The state subsequently granted other parcels to the railroad for right-of-way realignments, additional tracks, appurtenant uses (yards and stations), and to correct discrepancies between the filed maps and the actual locations. The language in later grants varies. The most restrictive language provides for revocation at will by the state.²¹⁵

Title to lands on the west shore of the Hudson River were conveyed by statute and by letters patent to the West Shore

214. Grants of submerged lands to the railroads convey a limited fee for use as a railroad. *Aldridge*, 32 N.E. at 54.

215. New York State Letters Patent, Book 47, page 570 (May 16, 1913) (conveying additional lands in the Town of Stockport, Columbia County, as shown on Land Under Water Map 7). There is nothing special about these lands to explain the reservation. Specific language may have been politically motivated (by, for example, an unhappy riparian with connections in Albany).

^{211.} In re Buffalo, 99 N.E. 850 (N.Y. 1912).

^{212.} New York State Letters Patent, Book 42, pages 690-92 (Dec. 26, 1873).

^{213.} Westchester (Bronx County, along the Hudson River, was part of Westchester County at the time of the patent) Putnam, Dutchess, Columbia, and Rensselaer Counties. The original maps should still be on file with the respective counties. A complete duplicate set of maps was filed with the state and are in the possession of the Office of Government Services, Division of Land Utilization, in Albany. These maps are made of linen and are as long as 100 feet, representing the first systematic survey of the east shore of the Hudson River. As such, they are the basis for determining the shoreline for subsequent grants of lands underwater and are the starting point for the several efforts (none completed) to establish the change in the modern shoreline (with consequent title implications).

Railroad Company.²¹⁶ Title to underwater lands in Rockland County was conveyed by statute.²¹⁷ The statute of 1865 specifically reserved riparian rights.²¹⁸ The letters patent issued for Orange and Ulster Counties were in the nature of quitclaim deeds, reserving any rights previously granted and gold and silver mines to the state.²¹⁹ No consideration was paid for any of the grants examined by the author.²²⁰ The reservations of existing rights and riparian interests, the complete lack of monetary consideration, as well as the general body of railroad law, point to the conclusion that the railroad essentially received an easement.

c. Limitations on Fee

Public trust doctrine raises issues of title that confound principles of property law. The state holds title, but that title is neither absolute nor defeasible. Determination of title to public trust lands involves principles of property law and principles of state sovereignty. To the extent that absolute title to trust lands is vested in the public as a whole, the state holds title as a trustee, and conveyances may not violate the terms of the trust. Put another way, the state's authority over trust lands is sovereign and proprietary. Although the state may convey its proprietary interest, the state cannot contract away or abdicate its sovereignty. This principle of sovereignty is not constitutional, but an intrinsic attribute of government. Nonetheless, trust lands have been conveyed. The courts dislike incomplete title and, consequently, judicial limitations on fee are rare.

^{216.} The railroad was also known as the New York West Shore Railroad Company; and, the New York, West Shore and Buffalo Railroad Company. The line was purchased by the New York Central Railroad. For a short history of the West Shore line *see* ADAMS, *supra* note 5, at 211-15.

^{217.} The state conveyed the lands shown on a map filed with the Secretary of State. Act of Apr. 24, 1865, ch. 556, 1865 N.Y. Laws 1121; Act of June 18, 1886, ch. 601, 1886 N.Y. Laws 858.

^{218.} Act of Apr. 24, 1865, ch. 556, § 1, 1865 N.Y. Laws 1121, 1121-22.

^{219.} The railroad was obliged to purchase any submerged lands previously granted by the state to the adjacent upland owners.

^{220.} The principle grant is located in the New York State Letters Patent, Book 40, pp. 314-29 (Feb. 16, 1882).

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i. Purpose of Grant / Actions to Annul

The owner of public trust lands may use them for any purpose not otherwise restricted by law or the language of the grant. Violation of the terms of the grant, fraud, or failure to vest title pursuant to a condition subsequent, may give rise to an action by the state attorney general to challenge the validity of the grant.²²¹ Such an action is limited, however, by the statute of limitations applicable to adverse possession.²²² If the attorney general "has good reason to believe" that the patent can be annulled, then he "must" bring the action.²²³ Since the duty is mandatory, a private party may petition the court to compel the attorney general to

223. N.Y. PUB. LANDS LAW § 138 (emphasis added).

^{221.} N.Y. PUB. LANDS LAW § 138 (McKinney 1993). An action to quiet title or ejectment based upon the theory that another grant is invalid is improper unless the grant in question is invalid on its face. E.G. Blackslee Manufacturing Co. v. E.G. Blackslee's Sons Ironworks, 29 N.E. 2 (N.Y. 1891) (holding that a grant valid on its face may not be attacked collaterally). The grant at question in Marba Sea Bay Corp. v. Clinton Street Realty Corp., 5 N.E.2d 824 (N.Y. 1936), may provide an example of a grant void on its face. The court found, in a collateral attack, that a colonial grant was void as against public policy. *Id.* at 826. See infra notes 262-63 & accompanying text for a discussion of the case. The dissent argued that the validity of the colonial grant should not be reached on the grounds, *inter alia*, of the collateral attack rule in *Blackslee*. 5 N.E. at 829 (O'Brien, J. dissenting). The majority did not address the issue, perhaps finding that the grant was void on its face.

^{222.} People v. Clarke, 9 N.Y. 349 (1850). See also M.R.M. Realty Co. v. Title Guarantee & Trust Co., 280 N.Y.S. 22 (App. Div., 1st Dep't 1935) (New York City grantor would be barred by statute of limitations from enforcing grantee's covenant to construct a wharf at any time City so directed); People v. New York Transit & Terminal Co., 195 N.Y.S. 305 (Sup. Ct. 1922) (holding that an action to void grant on grounds grantee not upland proprietor barred by statute of limitations); People v. Havemeyer & Elder, Inc., 265 N.Y.S. 249 (Sup. Ct. 1933) (action to void grant for failure to comply with condition subsequent within a fixed time barred by statute of limitations). The applicable statute of limitations is twenty years. N.Y. Crv. PRAC. L. & R. § 211(c). In Marba Sea Bay, 5 N.E.2d 824, the issue of the statute of limitations did not arise. If the statute did apply, it would bar a direct action to void the grant. Nonetheless, the court voided the grant in a collateral action brought to determine title. Marba Sea Bay suggests, therefore, that if a plaintiff can overcome the collateral attack rule, the statute of limitations will not apply. See supra note 221.

bring the action.²²⁴ Alternately, the state may bring an action on behalf of an interested party.²²⁵

ii. Language of Grant

The principal distinction among grants of lands under water is whether they are for "commercial purposes" or for "beneficial enjoyment."²²⁶ As the terms are not defined in the statute, the applicable law construing these terms has been developed judicially.

The courts have been inconsistent in construing the "commercial purposes" language. A first group of cases hold that the language, at least when coupled with a condition that docks are erected on the submerged lands, prohibits the owner from excluding public use of the premises.²²⁷ Other cases hold that the "commercial purposes" language imposes no public use restriction on the grant, regardless of whether the grant requires the erection of docks.²²⁸ These second

Efforts by the attorney general to enforce grants, apparently limited to the use of docks, met with a baffled response from the lower courts. In People v. American Sugar Refining Co., 148 N.Y.S. 160 (Sup. Ct. 1914), the attorney general brought an action to vacate letters patent on the grounds that the grantee had violated the terms by erecting factory buildings of up to ten stories on the lands. The patents were conditioned upon the grantee erecting docks and applying the premises to commerce. The court dismissed the complaint for failure to state a claim. The court noted that docks had been constructed and that the premises were applied to commerce, therefore, no violation of the terms of the patents were alleged. Neither the court, nor possibly the complaint, addressed the statutory restriction. All the letters patent were issued between 1868 and 1884, while the restriction appears to have been in force. At first glance, the case may have been decided merely upon an error in the pleading, however, the attorney general was insistent and presumably amended his complaint when he sued again. He fared no better, however, the second round. People v. Ameri-

^{224.} N.Y. CIV. PRAC. L. & R. § 7801 (article 78 proceedings).

^{225.} N.Y. CIV. PRAC. L. & R. § 1302. One court assumes in dicta that only the state has power to revoke a grant under letters patent. Smith v. State, 545 N.Y.S.2d 203 (App. Div., 2d Dep't 1989).

^{226.} Other specific conditions may apply. See generally supra part III.A.3.b. 227. Thousand Island Steamboat Co. v. Visger, 71 N.E. 764 (N.Y. 1904); Harper v. Williams, 18 N.E. 77 (N.Y. 1888).

^{228.} In re Water Front on Upper New York Bay, 157 N.E. 911 (N.Y. 1927) (holding that the "commercial purposes" and erection of docks language in grant permits grantee to build private docks and warehouses, *cert. denied*, 276 U.S. 626 (1928); Abbot v. Curran, 98 N.Y. 665 (1885) (holding that commercial purposes language imposes no restriction on absolute title).

cases, however, contain errors which weaken their authority.²²⁹ Nonetheless, the most recent case by the Court of Appeals to address the issue, *In re Water Front on Upper New York Bay*, provides the rule that a grant for commercial purposes conveys unrestricted title, subject to state control of navigation.²³⁰ If a grant, however, contains language purporting to restrict the use of the submerged lands to the erection of docks for the purpose of commerce, then a condition subsequent is imposed, but the condition does not carry any public right of use.²³¹ As the rule stands, the public does not necessarily lose use of filled lands where there is historic public use.²³²

The general rule applied to grants for beneficial enjoyment is that such grants convey the entire interest that the state has in the submerged lands.²³³ However, there remains

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231. In re Water Front on Upper New York Bay, 157 N.E. 911, 917 (N.Y. 1927). The court states that if a grant is subject to the condition subsequent that the premises be applied to commercial purposes, the erection of private wharves and warehouses satisfy the condition.

232. See infra part III.C.2 (concerning points of public access). Where grants are for commercial purposes, a history of public use may engraft a public right to use private wharves. See Thousand Island Steamboat Co. v. Visger, 71 N.E. 764 (N.Y. 1904) (discussing the history of prior public use of a wharf); Harper v. Williams, 18 N.E. 77 (N.Y. 1888) (discussing the history of public use after the construction of a wharf). Cf. Wetmore v. Brooklyn Gas Light Co., 42 N.Y. 384 (1870) (holding that no right of public use was implied where there never was any public use in fact).

233. In re Water Front, 157 N.E. at 914-15 (citing People v. Steeplechase Park Co., 113 N.E. 521 (N.Y. 1916)). The state legislature implicitly concurred

can Sugar Refining Co., 163 N.Y.S. 456 (Sup. Ct. 1917), affd 169 N.Y.S. 386 (App. Div., 2d Dep't 1918). The second opinion was lengthier, discussing the relation of docks to commerce, but again no reference was made to the statutory restriction, nor was it mentioned on the unsuccessful appeal. 169 N.Y.S. 386.

^{229.} In re Water Front relies, in part, on the apparently mistaken finding that the statutory restriction limiting the use of the premises to erecting docks for public use was repealed in 1850. 157 N.E. at 915. See supra notes 195-96. Abbot, is a memorandum decision holding, without analysis, that grants of submerged lands carry neither a condition subsequent nor a restriction. 98 N.Y. 665, 668 (1885). Abbot, however, cites for authority a line of cases that begin with, and rely upon, Craig v. Wells, 11 N.Y. 315 (1854). Craig v. Wells, however, is inapplicable. The case holds that a covenant in a deed, in favor of a third party, is void. Id. at 323. Obviously a grant from the state, as trustee, does not fall afoul of the rule when it imposes a restriction in favor of the people of the state.

^{230. 157} N.E. 911, 917 (N.Y. 1927).

a possibility that the state may void a grant for beneficial enjoyment that reserves the public use of the lands until the beneficial enjoyment is "appropriated" by the grantee.²³⁴

A beneficial grant can fully extinguish the public trust interest, or non-proprietary interest, of the state, provided that the grant is not of such magnitude as to run afoul of the proscription in *Coxe v. State.*²³⁵ "The question . . . is largely one of degree."²³⁶

The principal case construing an unrestricted grant for beneficial enjoyment is *People v. Steeplechase Park Co.*²³⁷ At issue was whether a private amusement park in Coney Island could appropriate the tidal shore of the Atlantic Ocean, completely blocking public access along the beach. The park was built upon several grants. All but one grant reserved public access to the tidal lands. The court affirmed, without discussion, the order of the court below that required the removal of the obstructions from those grants which reserved the public right of access.²³⁸ The court held that the one grant which contained no restrictions was for beneficial enjoyment and extinguished the public trust interest in the appropriated lands.²³⁹ Despite the strong language, there are several aspects to the decision that qualify it.

The weight of the authority of *Steeplechase*, and the breadth of its holding, are not conclusive as to the power of the legislature to extinguish the public trust. The decision

with the court's interpretation. See Act of Apr. 16, 1949, ch. 595, § 3, 1949 N.Y. Laws 1360, 1362 (amending Public Lands Law by adding subsection 11 which authorized the Board to convey to grantees, who had received a lesser interest than beneficial enjoyment, all remaining interest held by the state). The 1949 act expresses a legislative opinion that where grants are not for beneficial enjoyment, the state retains an interest in the lands.

^{234.} Smith v. State, 545 N.Y.S.2d 203, 204 (App. Div., 2d Dep't 1989). How the grantee would appropriate beneficial enjoyment is unclear.

^{235. 39} N.E. 400 (N.Y. 1895); See infra part III.A.3.c.iii.

^{236.} Steeplechase, 113 N.E. at 527 (Bartlett, C.J., concurring in the result).

^{237. 113} N.E. 521 (N.Y. 1916) (4-3 decision).

^{238.} Id. at 521 (aff'g 143 N.Y.S. 503 (Sup. Ct. (1913)), aff'd 151 N.Y.S. 157 (App. Div., 2d Dep't 1914).

^{239.} Steeplechase, 113 N.E. at 526-27.

commanded a bare majority,²⁴⁰ and the opinion only a plurality.²⁴¹ The opinion quotes, with approval, the principle that such grants are permissible if they are in the public interest, or at least, not injurious to the public.²⁴² Factually, however, the grant allowed an amusement park to block public beach access in Coney Island. No possible public interest, under traditional land use planning or public trust doctrine, is furthered by allowing this use, and it is clearly injurious to the public use of the remaining shore.²⁴³

The opinion was restricted, however, to a construction of the intent of the legislature when granting a fee for beneficial enjoyment.²⁴⁴ The opinion stated that the issue of whether the legislature acted beyond its power was not before it.²⁴⁵ The decision, therefore, can be limited to the posture of the case. No reservation will be implied in a grant for beneficial enjoyment, for consideration, that will provide the grounds for an injunction to permit public access to the foreshore.²⁴⁶ A court could still find such an unequivocal grant beyond the power of the legislature without overruling *Steeplechase*.²⁴⁷

242. 113 N.E. at 526 (quoting *In re* Long Sault Development Co. v. Kennedy, 105 N.E. 849, 851 (N.Y. 1915)).

243. After stating the non-injury rule, the court makes no attempt to apply it to the instant facts. The court simply states that "the propriety or validity of the grant is not attacked in this action." 113 N.E. at 526.

244. Id. at 526-27.

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245. Id. at 527 (noting that a patent for submerged lands could not be voided in a collateral attack).

246. Any such grant, however, is still subordinate to the federal power to regulate navigation. *Id.*

247. One lower court was so incensed by *Steeplechase* that in dicta, the court said that despite the controlling precedent, it would not follow it. Aquino v. Riegelman, 171 N.Y.S. 716, 718 (Sup. Ct. 1918), *aff'd on other grounds*, 173 N.Y.S. 917 (App. Div., 2d Dep't 1919) (stating "I must respectfully refuse to follow [*Steeplechase*] I deny that the Legislature has the power ... to give or grant to any person rights which are the property of all the citizens of this commonwealth").

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^{240.} Four judges voted to reverse the order below enjoining the obstructions, while three judges voted to affirm the order. The judges that dissented included Associate Judge Benjamin Cardozo, later a justice of the United States Supreme Court. *Id.* at 528.

^{241.} Steeplechase, 113 N.E. at 527. The Chief Judge of the New York Court of Appeals concurred in the result, but wrote separately to limit the holding to the fact that only a "few hundred feet" of the shore was involved. *Id.* (Bartlett, C.J., concurring).

In Appleby v. City of New York,²⁴⁸ the United States Supreme Court extended Steeplechase. In Steeplechase, the grantee had improved the property inconsistently with public access.²⁴⁹ In Appleby, the submerged lands had not been filled, nonetheless, the Court found that absolute title had passed to the grantee.²⁵⁰ Under Appleby and Steeplechase, the settled rule is that, under certain circumstances, the state cannot interfere with a grant for beneficial enjoyment, for consideration, without effecting a taking. If the grant specifically reserves a public interest, however, the grant is held subject to that interest.²⁵¹

iii. Magnitude of Grant

On very rare occasions, the courts have found grants of submerged lands invalid on the grounds that the state has given away too much and, therefore, impermissibly abdicated its sovereign power to manage trust lands for the benefit of the public.²⁵² The limitation is vague and fact sensitive. An examination of the specific cases where the courts have invalidated grants of submerged lands, however, sheds some light on how much is too much.

The principal case in New York to examine the outer limits of the state's power to convey absolute fee to trust lands is *Coxe v. State.*²⁵³ The question in *Coxe* was the validity of legislation authorizing a private development corporation to fill and take title to all tidal marsh lands, with some exceptions,

253. 39 N.E. 400 (N.Y. 1895).

^{248. 271} U.S. 364 (1926) (rev'g 139 N.E. 474 (N.Y. 1923)). See supra notes 159-70 and accompanying text for a full discussion of Appleby).

^{249.} People v. Steeplechase Park Co., 113 N.E. 521, 522 (N.Y. 1916).

^{250.} See supra notes 159-70 and accompanying text for an analysis of Appleby. New York cases following Appleby include: In re Water Front on North River, 219 N.Y.S. 353 (App. Div., 1st Dep't 1926); In re Water Front in Thompkinsville, 220 N.Y.S. 18 (App. Div., 2d Dep't 1927).

^{251.} Steeplechase, 113 N.E. 521. See also Barnes v. Midland R.R. Terminal Co., 85 N.E. 1093 (N.Y. 1908) (holding that the grant of lands to a riparian owner with a restriction prohibiting obstruction of public access along the shore will be construed in view of the grantee's reasonable necessity and right to access navigable waters as a riparian owner).

^{252.} See, e.g., Coxe v. State, 39 N.E. 400 (N.Y. 1895); Long Sault Dev. Co. v. Kennedy, 105 N.E. 849 (N.Y. 1914).

on Long Island and Staten Island.²⁵⁴ The court employed general language indicating that the legislature's wholesale disposition of public trust lands for speculative and private purposes exceeded its authority.²⁵⁵ The opinion went on to hold that the legislation also violated the delegation to Con-

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hold that the legislation also violated the delegation to Congress of the exclusive power to regulate foreign and interstate commerce under the Commerce Clause of the United States Constitution.²⁵⁶ Finally, the court held that the legislation violated the state constitution by embracing more than one subject and failing to indicate the nature of the legislation in its title.²⁵⁷

To the extent the court in *Coxe* relied upon public trust doctrine to strike the legislation,²⁵⁸ the holding is diluted by its alternate grounds. The New York Court of Appeals, however, has relied subsequently upon the public trust language in *Coxe*.

In Long Sault Dev. Co. v. Kennedy,²⁵⁹ at issue was the constitutionality of an act of the legislature conveying to a private corporation the control of navigation to a segment of the St. Lawrence River.²⁶⁰ The corporation was formed for the principal purpose of generating hydroelectric power.²⁶¹ The proposed site on the St. Lawrence consisted mainly of rapids and was not navigable for most of the year.²⁶² The authorized grant of the submerged lands was conditioned upon the corporation's construction of locks to improve public navi-

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^{254.} Id. at 400. More exactly, the validity of the legislation was put at issue when the legislature repealed the law forming the corporation and authorizing it to take tidal lands. Id. The case arose when a creditor of the corporation claimed \$25,000 from the state, a sum actually paid into the state treasury by the corporation pursuant to the legislation. Id.

^{255. 39} N.E. at 402-03.

^{256.} Id. at 403.

^{257.} Id. (emphasis added). The New York Constitution prohibits local or private bills from containing more than one subject, and requires that the subject be expressed in the title to the bill. N.Y. CONST. art. III, § 15.

^{258.} The court also cites Illinois Cent. R.R. v. Illinois, 146 U.S. 387 (1892), for the proposition that "the state is powerless to divest itself" of its title to trust lands held for the benefit of the public. *Coxe*, 39 N.E. at 402.

^{259. 105} N.E. 849 (N.Y. 1914).

^{260.} Id. at 851.

^{261.} Id. at 852.

^{262.} Id.

gation.²⁶³ Citing Coxe and Illinois Cent. R.R., the court held that the state could not divest itself of, nor delegate, control of the public navigable waters of the St. Lawrence to a private corporation.²⁶⁴

In Marba Sea Bay Corp. v. Clinton Street Realty Corp.,²⁶⁵ the Court of Appeals considered the validity of a colonial grant conveying the entire eleven miles of ocean front tidal lands found in the borough of Queens, New York City.²⁶⁶ The colonial grant expressly conveyed the beach, to the low water mark, to a private individual. The court noted that similar grants to political entities were valid delegations of sovereign power, but that such a vast conveyance to a private party was "contrary to . . . public policy and the law and, therefore, void."²⁶⁷

Out of these cases two rules emerge. The first rule is clear: the state may not convey to a private entity an entire segment of a navigable waterway subject to public trust,²⁶⁸ even where the conveyance is conditioned upon public rights of navigation and the duty to improve the navigability of the waterway.²⁶⁹

The second rule is less certain: there is a limit to the size of trust lands that the state may permissibly alienate to a private entity. The pertinent cases, *Marba Sea Bay* and *Coxe*, do not draw a fine line. In *Marba Sea Bay*, the entire ocean front beach of Queens County was at issue.²⁷⁰ The grants were of such magnitude that the court could not credibly uphold them without declaring that the public trust doctrine was no longer the law of the State of New York.²⁷¹ The

269. Long Sault Dev. Co., 105 N.E. at 852.

270. 39 N.E. at 401.

271. The court also found that such large grants were *per se* contrary to the public interest. *See Coxe*, 39 N.E. at 402-403 (noting first that the state cannot transfer title to land if the transfer is not in the public interest, and second that

^{263. 105} N.E. at 852.

^{264.} Id.

^{265. 5} N.E.2d 824, 825 (N.Y. 1936).

^{266.} See id. at 825.

^{267.} Id. at 825-26.

^{268.} Title to the beds of most rivers is held privately. The St. Lawrence River, however, forms a state boundary, and title to the riverbed is vested in the state. See supra part III.A.3.a.

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limitation concerning the size of a permissible grant is so undefined that *Coxe* and *Marba Sea Bay* serve mainly as warnings to the legislature rather than as guides.

In sum, the limitation on the magnitude of permissible grants is a reservation of judicial power to annul grants authorized by the legislature. Thus far, the judiciary has only exercised its power in the most egregious cases. By not defining a threshold for a permissible grant, however, the judiciary has reserved the power to annul any grant that it determines is too much.

iv. Abandonment of Use

In New York, the implication from the cases construing title is that grants of public trust lands have no possibility of reverter by virtue of their character as public trust lands.²⁷² If the rule applies, abandonment of use can have no impact on title. The language of the grant, however, may create a defeasible estate.²⁷³ The courts have not decided definitively whether conditional grants for commercial purposes, which are vested but then subsequently appropriated to purely private non-commercial uses or abandoned, convey absolute title excluding a possibility of re-entry by the state.²⁷⁴

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the grant at issue affected four counties); Marba Sea Bay, 5 N.E.2d at 825 (stating that "[t]he grant of eleven miles of foreshore, being the entire ocean front of the borough of Queens, which grant is to a private person for neither commercial nor governmental purposes, is not one recognized by law."). Thus, the public interest may be nothing more than a corollary to the impermissible size of the grant.

^{272.} See supra part III.A.3.c.iii. Grants to railroads are a probable exception. See infra notes 404-14 and accompanying text.

^{273.} See supra notes 226-32 and accompanying text.

^{274.} The courts might consider the abandonment of a commercial use, or appropriation to non-commercial use, a violation of the grant, giving the state a cause of action for re-entry subject to the statute of limitations. See supra part III.A.3.c.i. This possibility is suggested by In re Water Front, and supported by legislation that implies a reserved state interest in grants that are for less than beneficial enjoyment. See supra note 233 and accompanying text.

B. Railroad Law

1. Statutory Protection of Access

Statutory provisions restrict the railroads' use of lands to protect access to the Hudson River. Grants of submerged lands are only available if required for a right-of-way.²⁷⁵ The charter of the Hudson River Railroad Company explicitly protects the upland owners' "usual access to the river" and requires the railroad to restore the use of wharves and docks severed from the river by construction of a road.²⁷⁶ Where the railroad crosses a highway or street, the railroad is responsible for required alterations, or bridging, to restore the road to its former usefulness.²⁷⁷

2. Grade Crossing Elimination

Since the end of the 19th Century, through both legislative enactments²⁷⁸ and an addition to the state constitution,²⁷⁹ it has been the policy of the State of New York to

276. Act of Apr. 22, 1846, 1846 N.Y. Laws 272, 279-80, ch. 216, §§ 15-16. Use of the right-of-way can only reasonably affect the upland owner's riparian right of access to navigable waters. See infra part III.C.1.

277. See infra part III.B.3.

278. See Act of Mar. 26, 1906, ch. 109, 1906 N.Y. Laws 213; Act of July 25, 1911, ch. 777, 1911 N.Y. Laws 2065; Act of June 2, 1917, ch. 719, 1917 N.Y. Laws 2361; Act of Mar. 30, 1927, chs. 444-46, 1927 N.Y. Laws 1113-1125; Act of Mar. 27, 1928, ch. 677, 1928 N.Y. Laws 1455; Apr. 13, 1939, ch. 289, 1939 N.Y. Laws 669 (codified as amended at Grade Crossing Elimination Act of 1970, N.Y. TRANSP. Law §§ 220-29 (McKinney 1991)). See also N.Y. R.R. Law § 91 (McKinney 1991).

279. See N.Y. CONST. art. VII, § 14 (1941 amendment authorizing legislature to issue \$300 million in bonds to finance grade crossing eliminations).

^{275.} N.Y. R.R. Law § 18 (McKinney 1991). Filled lands and railroad bridges may not cause flooding, nor block navigation. Rumsey v. New York & New England R.R., 28 N.E. 763 (citing Act of Apr. 2, 1850, ch. 140, 1850 N.Y. Laws 211). The court noted that the obligation of a railroad company to "restore the stream or water-course . . . [crossed by a railroad] to its former state, or to such a state as not unnecessarily to have impaired its usefulness" had been deleted from the railroad law by Act of June 7, 1890, ch. 565, 1890 N.Y. Laws 1082. *Id.* at 765. In fact, the provision had been relocated and expanded so as to additionally prohibit any interference with the navigation of steamboats and sailboats. Act of June 2, 1890, ch. 565, § 11, 1890 N.Y. Laws 1082, 1087.

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eliminate grade crossings.²⁸⁰ The Commissioner of Transportation (Commissioner), was authorized to order the relocation or elimination of grade crossings.²⁸¹ In addition, the Commissioner was directed to avoid creation of new grade crossings.²⁸² As a consequence of these provisions, no public crossings can be built without the approval of the Commissioner.²⁸³

Until 1994, the Commissioner only had jurisdiction over public crossings.²⁸⁴ However, in 1994, the New York State Legislature amended the Railroad Law to allow the Commissioner to require alterations and/or closures of private cross-

282. N.Y. R.R. LAW § 89 (McKinney 1991). This provision prohibits the creation of public grade crossings after 1897 without the authorization of the Commissioner. For the history of section 89, see 1910 N.Y. Laws 923-24; Act of May 26, 1913, ch. 744, 1913 N.Y. Laws 1866; Act of Apr. 16, 1914, ch. 378, 1914 N.Y. Laws 1523; Act of Apr. 25, 1924, ch. 481, § 1, 1924 N.Y. Laws 891, 891; Act of Mar. 28, 1928, ch. 546, 1928 N.Y. Laws 1185; Act of Apr. 18, 1945, ch. 855, § 58, 1945 N.Y. Laws 1890, 1917-34; Act of May 31, 1968, ch. 420, § 251, 1968 N.Y. Laws 1467, 1609-10; Act of Apr. 29, 1970, ch. 267, § 25, 1970 N.Y. Laws 1347, 1482-83 (codified as amended at N.Y. R.R. Law § 89 (McKinney 1991)).

283. Whether the crossing is "public" under the railroad law determines the jurisdiction of the DOT and the availability of public funds for crossing improvements. *See* Neuhaus v. Long Island R.R., 292 N.Y.S.2d 930 (App. Div., 2d Dep't 1968).

284. In re New York Cent. & Hudson River R.R., 93 N.E. 515, 516 (N.Y. 1910) (holding that statutory proceedings under section 91 to alter or close a grade crossing only apply to public streets).

^{280. &}quot;A grade crossing in the ordinary sense . . . refers to the crossing of a railroad location by a highway on the level of the railroad." Armour & Co. v. New York, N.H. & H. R.R., 103 A. 1031, 1033 (R.I. 1918).

^{281.} Under Article II of New York Highway Law, the Commissioner of Transportation shall "[p]rovide for the separation of highway-railroad crossings and construction of highway-railroad crossings at grade" N.Y. HIGH. Law § 10(26) (McKinney 1979) (applicable to state highways). Any municipality in which a grade crossing is located, or any railroad company whose tracks are crossed at grade by a highway, may initiate proceedings to eliminate grade crossings upon petition to the Commissioner. In addition, upon his own motion, the Commissioner may investigate any other grade crossings which he determines should be considered for elimination. N.Y. TRANSP. Law § 223-24 (governing reimbursement by the state for elimination costs); N.Y. R.R. Law § 91 (McKinney 1991) (alteration or elimination of grade crossings procedure).

ings,²⁸⁵ including farm crossings, located in an inter-city rail passenger service corridor.²⁸⁶

3. Crossing Construction and Maintenance

Railroads are responsible for all crossing costs when constructing a new line.²⁸⁷ The first act to authorize and regulate railroad corporations provided that when the railroad track crossed a highway, such highway may be carried under or over the track, as may be most expedient.²⁸⁸ In addition, the corporation was given the power to construct its road across, along, or upon any water-course or street, provided that the railroad restored the intersected entity to its former state, or to such a state as not to unnecessarily impair its usefulness.²⁸⁹

287. Whenever under section 89 a new railroad is constructed across an existing street, the expense of crossing above or below the grade of the street, including any expense incurred in altering or changing the street, is paid entirely by the railroad corporation. N.Y. R.R. LAW § 94 (McKinney 1991).

288. Act of Apr. 2, 1850, ch. 140, 1850 N.Y. Laws 211. See also Act of May 12, 1846, ch. 216, 1846 N.Y. Laws 272 (authorizing the formation of the Hudson River Railroad). In 1884, the legislature passed an act to provide for the construction, extension, maintenance and operation of street surface railroads and branches thereof in cities, towns and villages (intra-city trains). Act of May 5, 1884, ch. 252, 1884 N.Y. Laws 308.

289. Act of Apr. 2, 1850, ch. 140, 1850 N.Y. Laws 211.

^{285.} Intercity rail passenger service, N.Y. R.R. Law § 97 (McKinney 1991 & Supp. 1995). "Private rail crossing" is defined by the statute as a crossing which traverses a railroad track or tracks and may be used by the owner of the right-of-way, the owner's invitees and others, including the public, but has not been declared or recognized as a public rail crossing by the Commissioner. *Id.* Jurisdiction over private crossings was requested by the DOT to "advance the development of a [sic] intercity rail passenger service" DOT Memorandum No. 4-1994, Dept. Bill No. 516.

^{286. &}quot;Inter-city rail passenger service" means any inter-city rail passenger transportation operation where rail passenger trains operate on a regular scheduled basis. "Inter-city rail service corridor" is defined as a continuous rail-road route which contains one or more segments of railroad track or tracks where inter-city rail passenger service is in operation by the national rail passenger corporation (Amtrak). N.Y. R.R. Law § 97. The section is not applicable, therefore, to the west shore where Amtrak does not operate. This section also requires application to the Commissioner for the establishment of new private rail crossings in an inter-city rail passenger service corridor. *Id.*

In 1890, the authority of the railroad under the Act of 1850²⁹⁰ was limited. Under the 1890 law, the railroad could not construct a bridge across a stream or lake, or a road across a street, without the consent of the municipality or an order from a special term of the supreme court.²⁹¹

Whenever a new street is constructed across an existing railroad, the railroad corporation pays one-half of the cost and the municipal corporation having jurisdiction over such street pays the remaining one-half.²⁹² The Commissioner determines whether the street will cross the railroad above, below, or at grade, and the safest way to accomplish the crossing.²⁹³ The Commissioner is obliged to avoid grade crossings where feasible.²⁹⁴

Section 91 of the Railroad Law also permits the Commissioner to order the alteration of a crossing, upon petition of the affected municipality or railroad corporation, when the Commissioner determines that the alteration is in the public interest.²⁹⁵ The expenses of every change made in accordance with section 91 are borne 85% by the state and 15% by the municipal corporation in which the crossing sits.²⁹⁶ However, whenever a change is made to an existing crossing, other than a change made in accordance with the provisions of section 91,²⁹⁷ 50% of the expense is borne by the railroad

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294. See supra notes 281-82 and accompanying text.

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^{290. 1850} N.Y. Laws at 211.

^{291.} Act of June 7, 1890, ch. 565, 1890 N.Y. Laws 1082, 1136.

^{292.} N.Y. R.R. LAW § 94.

^{293.} N.Y. R.R. Law § 90. For the history of section 90, see 1910 N.Y. Laws 923-24; Act of May 26, 1913, ch. 744, 1913 N.Y. Laws 1866; Act of Apr. 16, 1914, ch. 378, 1914 N.Y. Laws 1523; Act of May 12, 1921, ch. 698, § 1, 1921 N.Y. Laws 2467; Act of Apr. 25, 1924, ch. 481, § 2, 1924 N.Y. Laws 891, 892-4; Act of Mar. 23, 1928, ch. 546, § 19, 1928 N.Y. Laws 1185, 1202-05; Act of Apr. 18, 1945, ch. 855, § 58, 1945 N.Y. Laws 1890, 1934-35; Act of May 31, 1968, ch. 420, § 252, 1968 N.Y. Laws 1467, 1610-11; Act of May 9, 1969, ch. 430, § 10, 1969 N.Y. Laws 1498, 1505-07; Act of Apr. 29, 1970, ch. 267, § 26, 1970 N.Y. Laws 1347, 1484-86 (codified as amended at N.Y. R.R. Law § 90).

^{295.} N.Y. R.R. Law § 91.

^{296.} N.Y. R.R. Law § 94(3).

^{297.} For example, the Commissioner may institute proceedings on his own motion for the alteration of an existing grade crossing or structure when, in his opinion, public safety requires the alteration. N.Y. R.R. Law § 95. Such an alteration is one made other than in accordance with section 91, and thus the

corporation, 25% by the municipal corporation, and 25% by the state.²⁹⁸

When a street crosses a railroad by an overhead bridge, the framework of the bridge and its abutments are maintained by the railroad, and the roadbed and approaches to the bridge are maintained by the municipality having jurisdiction over the street.²⁹⁹ Since both the railroads and the municipalities would like to avoid such maintenance costs, the definitions of "roadway," "approaches," and "framework of the bridge and its abutments" are often at issue.³⁰⁰

Railroads are fully responsible for maintaining the structure and roadway of bridges constructed prior to July 1, 1897, if they had such an obligation prior to 1897.³⁰¹ When a pre-

299. N.Y. R.R. Law § 93. Under this section, the railroad is required only to maintain the bridge framework and abutments as originally designed. In re Morris Ave. Bridge, 174 N.Y.S. 682 (Sup. Ct. 1919). If an alteration, as opposed to maintenance, is required in the existing structure due to an increase in traffic over the bridge in excess of that which could have been contemplated when the bridge was originally built, the procedures of section 91 must be followed. Id. at 683.

300. If the purpose of a member of a bridge structure is to provide form and strength to the bridge crossing a railroad, it must be maintained and repaired by the railroad. 18 Op. Comptroller 236 (1962). The term roadway, however, may also include the immediate support for the pavement even if the support also serves a structural function. For example, the steel plating which supports the asphalt pavement of an overhead bridge is part of the roadway, and must be maintained by the municipality. 18 Op. Comp. 236 (1962). See also New York Cent. R.R. v. Erie County, 95 N.Y.S.2d 305, 307-09 (Sup. Ct. 1949) (railings along the sidewalks not a part of the framework of the bridge).

301. N.Y. R.R. Law § 93. The railroad's duty to maintain a bridge built by the railroad before 1897 is not limited to instances where the railroad crossed an existing highway. Pennsylvania R.R. v. City of Rochester, 37 N.Y.S.2d 471 (Sup. Ct. 1942), aff'd, 47 N.Y.S.2d 288 (App. Div., 4th Dep't 1943), aff'd, 59 N.E.2d 178 (N.Y. 1944). The evidence of an agreement concerning the maintenance of a bridge can be lost quickly, if it ever existed at all. In one case, decided in 1916, the evidence showed that a bridge had been constructed before 1897, but the plaintiff town apparently had no knowledge or evidence of an

railroad must split the expense with the municipality and the state pursuant to section 94(3). In re Staten Island Rapid Transit Ry., 221 N.Y.S. 129, 144 (App. Div., 2d Dep't 1927), aff'd, 157 N.E. 892 (N.Y. 1927), aff'd, 276 U.S. 603 (1928).

^{298.} N.Y. R.R. Law § 94(3). In addition, "there is no question that if the change is reasonably necessary in the interests of public safety, the [Commissioner] may insist upon it regardless of the prospective bankruptcy of the railroad company financially burdened thereby." *In re* Lehigh Valley R.R. & Tioga St., 5 N.Y.S.2d 946, 948-49 (App. Div., 3d Dep't 1938).

1897 bridge is replaced, the law is uncertain as to whether the bridge retains its pre-1897 status. If a bridge is replaced by a railroad for its own purposes, the railroad may remain solely liable for its maintenance.³⁰² On the other hand, replacement can result in the loss of pre-1897 status.³⁰³

The maintenance responsibility of either the railroad or the municipality can be discharged in certain situations. When a railroad sells its road beneath a bridge, the obligation it had to maintain the structural portion of the bridge reverts to the municipality.³⁰⁴ In addition, where a county has taken over the roadway and approaches to a bridge above a railroad as part of a county road, the county becomes liable for all maintenance and repair.³⁰⁵

4. Eminent Domain

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The power of eminent domain is the right of the government to take private property for a public purpose or use. Courts have held that this power is an inherent attribute of

303. City of Mt. Vernon v. Feinberg, 113 N.Y.S.2d 534 (App. Div., 3d Dep't 1952) (declining to follow *Cortlandt* on grounds it was dicta and under facts suggesting bridge replaced or modified for highway traffic purposes on several occasions). Resurfacing alone does not result in a loss of pre-1897 status. Pennsylvania R.R. v. City of Rochester, 59 N.E.2d 178 (N.Y. 1944).

304. 81 Op. Att'y Gen. 144 (1981). But see City of Middletown v. Wallkill Transit Co., 193 N.Y.S. 297 (Sup. Ct. 1922) (holding that where a trolley railway company's predecessor erected a highway bridge crossing a railroad, and agreed with the railroad company to maintain the bridge, the agreement did not relieve the railroad from its primary liability to the municipality under Railroad Law § 93 for cost of repairing the framework). However, sections 93-a and 93-b of the Railroad Law provide that the responsibility of a railroad to maintain and keep in repair the bridge does not terminate upon the abandonment of the railroad, unless otherwise agreed upon by the railroad and the governing body. N.Y. R.R. Law §§ 93-a, 93-b.

305. 1971 Op. Att'y. Gen. 117.

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agreement concerning the maintenance of the bridge. Town of Cortlandt v. New York Cent. R.R., 161 N.Y.S. 377 (App. Div., 2d Dep't 1916) (deciding that the statute governed the respective obligations of the town and the railroad for the maintenance of the highway bridge leading to Croton Point).

^{302.} Town of Cortlandt v. New York Cent. R.R., 161 N.Y.S. 377 (App. Div., 2d Dep't 1916), aff'd, 115 N.E. 1052 (N.Y. 1917) (holding that bridge replaced by railroad solely for railroad improvements retains its status as a pre-1897 bridge). See also City of New York v. Long Island R.R., 5 N.E.2d 380 (N.Y. 1936) (railroad to maintain the roadway and the framework of a bridge which passed over property used only for railroad yard purposes).

sovereignty vested in the legislature and, as such, exists without constitutional authorization.³⁰⁶ The New York State Constitution, however, does require the payment of just compensation.³⁰⁷ Provided just compensation is paid, the state may condemn private property when "necessary" to serve a "public purpose."³⁰⁸ Necessity is a legislative determination subject only to the deferential judicial review of whether the authority acted in "good faith and with sound discretion."³⁰⁹ Whether the condemnation serves a public purpose or use, however, is a judicial question.³¹⁰ The analysis is also quite different where a private corporation wields the power under a delegation from the legislature.

The state may delegate the power of eminent domain to railroad companies under the settled rule that they perform a public purpose.³¹¹ The power to determine necessity, however, is not delegated to the corporation; rather, it is a purely judicial question.³¹² An analysis of the authority delegated to the railroads must begin with the applicable statutes.

Under the General Railroad Act of 1850,³¹³ the railroads could exercise the power of eminent domain only to acquire lands necessary to their right-of-way.³¹⁴ The Hudson River Railroad was initially given the slightly broader power to condemn land for the right-of-way or land affected by the operation of the right-of-way.³¹⁵ An 1869 amendment to the General Railroad Law permitted the railroad to condemn lands required for the "purposes of its incorporation."³¹⁶

^{306.} Fifth Avenue Coach Lines, Inc. v. City of New York, 183 N.E.2d 684, 687 (N.Y. 1962); People v. Priest, 99 N.E. 547, 552 (N.Y. 1912); Heyward v. Mayor of New York, 7 N.Y. 314, 324 (1852).

^{307.} N.Y. CONST. art. I, § 7 (requiring payment of just compensation).

^{308.} People v. Fisher, 83 N.E. 482, 485 (N.Y. 1908).

^{309.} Id.

^{310.} In re City of Brooklyn, 38 N.E. 983, 989 (N.Y. 1894), aff d sub nom. Long Island Water Supply Co. v. Brooklyn, 166 U.S. 685 (1896).

^{311.} Rensselaer & Saratoga R.R. v. Davis, 43 N.Y. 137, 142 (1870).

^{312.} Id. at 144.

^{313.} Act of Apr. 2, 1850, ch. 140, 1850 N.Y. Laws 211.

^{314.} Id. § 14, 1850 N.Y. Laws at 216-18.

^{315.} Act of May 12, 1846, ch. 216, § 10, 1846 N.Y. Laws 272, 275-78.

^{316.} Act of Apr. 17, 1869, ch. 237, 1869 N.Y. Laws 441.

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The language of the statute is broad, but the courts have limited its import to land required for the roads, yards, terminals, and facilities for the temporary storage of freight.³¹⁷ Condemnation to acquire manufacturing facilities, worker housing,³¹⁸ and gravel quarries are not within the statutory delegation.³¹⁹

When a railroad seeks waterfront facilities to receive shipping traffic and lands in excess of its immediate needs, the question of the railroad's power is less certain. In *Rensselaer & Saratoga R.R. v. Davis*,³²⁰ the court found that the need for docking facilities in anticipation of increased demand was speculative, mainly serving to enhance the railroad's competitive position against private interests, including other common carriers.³²¹ The court held that the railroad had to show "beyond a reasonable doubt, that such increase [in demand] will occur.^{"322} The court found such proof lacking and stated that it did not think that the "construction of slips for the accommodation of vessels" was a necessary corporate purpose.³²³

Seven years later, in New York Cent. & Hudson River R.R., the Court of Appeals permitted that railroad to condemn a large portion of the water front in New York City, including piers and submerged lands.³²⁴ The court distinguished Rensselaer & Saratoga R.R. on the grounds that the earlier case relied on the speculative and competitive purposes for which the railroad sought title to the lands.³²⁵ The court refused to question whether all the lands were required for expansion, finding that the "weight of evidence" was "con-

^{317.} In re N.Y. & Harlem River R.R. v. Kip, 46 N.Y. 546, 552-53 (1871).

^{318.} Id. at 552 (citations omitted).

^{319.} In re N.Y. & Canada R.R. v. Gunnison, 3 N.Y. Sup. Ct. 632 (1874).

^{320. 43} N.Y. at 137.

^{321.} Id. at 146.

^{322.} Id. at 145.

^{323.} Id. at 146. The court stated, however, that the railroad could acquire such facilities by ordinary purchase. Id. The distinction is dicta. The applicable railroad law restricted all real estate ownership to lands necessary to the corporate purpose. See § 28(3), 1850 N.Y. Laws at 224.

^{324.} In re N.Y. Cent. & Hudson River R.R., 77 N.Y. 248 (1879). 325. Id. at 259.

vincing" that the railroad needed more lands for its present needs, and to accommodate a "large increase of freight [that] may and will occur \ldots ."³²⁶ In sum, New York Cent. & Hudson River R.R. held that railroads may acquire waterfront facilities and some excess lands provided, at least, that it has an immediate need to expand and convincing proof that its need for excess lands is not merely speculative.³²⁷

5. Abandonment of Railroad Lands

The title a railroad obtains by condemnation of a right-ofway is in the nature of a permanent easement for the sole purpose of the railroad.³²⁸ When a road is abandoned, as happens upon the dissolution of the corporation³²⁹ or the sale of the right-of-way for non-railroad purposes, title reverts to the grantor.³³⁰

Lands acquired for a depot, however, are taken in fee simple without possibility of reverter.³³¹ Actual use of the lands for a depot is not required to vest absolute title,³³² but

^{326.} Id. at 265-66 (stating that findings concerning prospective needs met test of Rensselaer and Saratoga R.R. Co.).

^{327.} The decision commanded a bare majority, 4-3, and the opinion only a plurality (Miller, Rapallo, and Earl, JJ., concurring in the opinion; Church, C.J., concurring in the result; Folger, Andrews, and Danforth, JJ. dissenting). The case may represent, therefore, the outer bounds of the railroad's power to exercise eminent domain.

^{328.} O & W Lines, Inc. v. St. John, 228 N.E.2d 370, 371-72 (N.Y. 1967).

^{329.} If the corporation is dissolved pursuant to its acquisition by another railroad, its corporate existence is continued through the merger. Miner v. New York Cent. & Harlem River R.R., 25 N.E. 339 (N.Y. 1890).

^{330.} Id.; In re Harlem River Drive, 121 N.E.2d 414, 416 (N.Y. 1954). See Act of Apr. 2, 1850, ch. 140, § 18, 1850 N.Y. Laws 211, 219-20 ("the company shall be entitled to enter upon, takes possession of, and use the [condemned] land for the purposes of its incorporation, during the continuance of its corporate existence \ldots ."). The durational provision was deleted by Act of Apr. 22, 1964, ch. 735, 1964 N.Y. Laws 1902, but remains applicable to lands acquired under the earlier provision.

^{331.} O & W Lines, Inc., 228 N.E.2d at 373 (holding that amendment of the General Railroad Law vests railroads with absolute fee in lands condemned for depots).

^{332.} Ellar Estates Corp. v. Cohen, 383 N.Y.S.2d 532 (App. Div., 2d Dep't 1976) (holding that proceedings to acquire lands for a depot conclusively vested absolute title in railroad, despite fact that lands were only used for a hotel and "places of amusement").

an intention to so use, or actual use as a depot, must be proved.³³³ Title to lands acquired by purchase is only limited by the language of the deed.³³⁴

The courts have not considered whether title to trust lands granted to railroads is defeasible upon the abandonment of use. However, some railroad grants specifically reserve the power of the state to revoke the grant, although the power of revocation is not limited to abandoned railroad lands.³³⁵

6. Tort Liability and Public Safety

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Railroads create a barrier to river access for two reasons. First, railroads are dangerous and subject to many regulatory controls designed to protect public safety. Second, railroads face the possibility of financial liability for personal injuries resulting from their operations. Consequently, railroads have a financial interest in excluding the public from their dangerous right-of-ways, and issues of tort liability and public safety come to have a direct impact on public access to the Hudson River.

Liability and safety concerns have prompted the federal and state governments to take steps to reduce rail accidents.³³⁶ The policy of promoting safety is furthered by regu-

336. Accidents involving motorists and pedestrians along the railroads' right-of-way are a national problem. As of 1973, there were 395,000 grade crossings in the United States. 214,000 were public crossings. Benson C. Marshall, *Defending the Defensible: A Railroad Grade Crossing Accident*, ISSUES IN RAILWAY LAW, 1990 A.B.A. TORT AND INS. PRAC. SEC. 193-251, 204. In 1981, there were 8546 accidents at grade crossings, or approximately one accident for every four grade crossings during the calendar year (an accident frequency of

^{333.} Schenectady Chem., Inc. v. DeLuke Sand & Gravel Co., 286 N.Y.S.2d 902 (App. Div., 3d Dep't 1968) (holding that where purpose is not indicated in condemnation proceedings, purpose is a question for the finder of fact).

^{334.} Nicoll v. New York & Erie R.R., 12 N.Y. 121 (1854).

^{335. &}quot;This grant is made subject to revocation by the State under its trust powers for the benefit of the People of the State." New York State Letters Patent, Book 47, p. 570 (May 16, 1913). The appearance of this language in some, but not all grants, permits the argument that when omitted, the state intended to grant fee simple absolute. Nonetheless, because the power of revocation is absolute, thereby reserving an extraordinary power in the state, its absence in a grant does not foreclose the more ordinary reversion or power of re-entry on abandoned railroad lands.

lating railroad operations and public access to the right-ofway.³³⁷ Liability relates to the railroads' financial ability to

approximately 0.25 per year/crossing), resulting in 697 deaths and 3121 injuries. Dale Haralson, *Trying a Grade Crossing Case*, 25 TRIAL 40 (1989) (citing U.S. DEP'T OF TRANSP., BULL. No. 4, RAIL-HIGHWAY CROSSING ACCIDENT INCI-DENT AND INVENTORY BULL. (1982)).

The Hudson River Railroad has a long history of injuries and deaths resulting from its operations. Between 1863 and 1864, for example, the railroad reported twenty-one serious injuries or deaths, half of which appear to have involved persons using a grade crossing or the railroad right-of-way. ANNUAL REPORT OF THE STATE ENGINEER AND SURVEYOR OF THE STATE OF NEW YORK (Albany, Weed, Parsons & Co. 1865). Today, along the Hudson River line (eastern shore), there are twelve active grade crossings (including five unimproved pedestrian crossings) south of the Poughkeepsie station (the northern terminus of Metro-North commuter service, a subsidiary of the Metropolitan Transportation Authority (MTA)). See PACE REPORT, supra note 7, at app. A. Between 1989 and 1995 the total accident frequency (mostly involving pedestrians) was 0.33 per year/crossing in the MTA service area, or approximately one accident at each crossing every three years. See Metropolitan Transportation Authority, Vehicle Incidents at Grade Crossings, Hudson Line (computer printout May 4, 1995) (on file with author) (three accidents involved MTA trains and the fourth an Amtrak train); Metropolitan Transportation Authority, Trespassers on Hudson Line (computer printout May 3, 1995) (on file with author). Although the figures suggest that New York has a higher injury rate than the national average, the risk of injury, factoring the frequency of trains and crossing use, may be less than the national average.

The most serious collisions are between trains and do not implicate public access. For example, in 1987, an Amtrak passenger train collided with a Conrail freight train, resulting in fifteen passenger deaths and 174 injuries. *Hearings, supra* note 15, at 86 (Background Paper on Eliminating or Limiting Punitive Damages for Railroad Passenger Deaths and Injuries). Punitive and compensatory damages amounted to \$134 million. *Id.* at 36 (statement of Edwin L. Harper, Pres., Association of American Railroads).

337. The federal government has encouraged the elimination of grade crossings. 23 U.S.C. § 130 (1994) (federal funds for grade crossing elimination); 45 U.S.C. § 650(a) (Supp. V 1993) (federal mandate to eliminate grade crossings in the Northeast Corridor). It also sponsors the development of sophisticated train control technologies. 59 Fed. Reg. 46,470 (1994). Finally, it has encouraged the improvement of traffic control devices at existing grade crossings. 23 U.S.C. § 130.

New York's initiatives to reduce liability focus on the reduction of hazards posed by grade crossings in addition to the regulation of railroad safety generally. N.Y. COMP. CODES R. & REGS. tit. 17(C), §§ 910.0-924.31 (1995). For example, the DOT regulates signage and crossing control technology. N.Y. COMP. CODES R. & REGS. tit. 17(B), §§ 220.1-220.4, 277.1-277.9, 278.1-278.6, 279.1-279.11 (1995). The DOT also has the authority to close grade crossings. See supra part III.B.2. State law requires motorists to come to a full stop before grade crossings. N.Y. VEH. & TRAF. LAW § 1170 (McKinney 1986) (where warning of oncoming train); Id. § 1171 (certain vehicles must always stop); Id. § 1176 provide service.³³⁸ A number of legal principles serve to lessen the liability exposure of the railroads.

Federal regulations governing speed limits preempt tort claims alleging that a train, although in compliance with federal speed limits, was traveling at an excessive speed.³³⁹

338. To protect high-speed passenger rail operators from liability, the United States Senate considered legislation, S. 839 (not enacted), that required applicant states to create funds in the amount of \$500 million to indemnify railroad companies of all liability from high-speed rail passenger services. 140 CONG. REC. S12,128-S12,129 (daily ed. Aug. 18, 1994). The legislation was prompted partly by the fact that indemnification agreements from passenger rail operators are required by the owners of the rights-of-way, typically freight carriers. Hearings, supra note 15, at 86. These agreements may indemnify the owners from all liability to rail passengers, regardless of fault. Id.; see also Liability Apportionment Agreement between Conrail and Amtrak § 8 (June 19, 1979) (on file with the author). Amtrak disputed the meaning of the apparently blanket indemnification, arguing that it has not indemnified Conrail for accidents arising from "deliberate or knowing disregard or disablement of safety signals. safety mechanisms, or safety systems [by Conrail employees]" Letter from Stephen C. Rogers, General Counsel, Amtrak, to Bruce P. Wilson, Senior Vice President - Law, Conrail (Jan. 29, 1992) (on file with author).

339. The Secretary of Transportation has established speed limits for freight and passenger trains that depend upon track classification. 49 C.F.R. §§ 213.51-.59, 213.101-.143 (1993) (six classifications of track based upon geometry and structure); Id. § 213.9 (speed limits). The regulations are promulgated under the authority of the Federal Railroad Safety Act of 1970, Pub. L. No. 91-458, 84 Stat. 971 (1970) (codified as amended in scattered sections of 49 U.S.C.A.). The act contains an explicit provision regarding the preemptive effect of the Secretary's standards. 49 U.S.C.A. § 20106 (West 1994). The federal speed limits preempt any state regulation of train speed, whether by statute or by common law. CSX Transp., Inc. v. Easterwood, 113 S. Ct. 1732, 1737-38 (1993). Nonetheless, the statute contains a savings provision whereby states may promulgate more stringent standards to address local hazards provided that such standards are not "incompatible" with federal law. 49 U.S.C.A. § 20106(2). CSX, however, left little to no room for state regulation of speed limits, despite the savings provision. CSX, 113 S. Ct. at 1743 (stating that federal speed limits apply regardless of the presence of grade crossings and rejecting the argument that federal speed limits are only designed to prevent derailments and not safe speeds in view of local conditions); see also Mahony v. CSX Transp., Inc., 966 F.2d 644, 646-47 (11th Cir. 1992) (Birch, J., concurring) (criticizing CSX and arguing that a train can exceed a safe speed although obeying federal speed limits); Landrum v. Norfolk S. Corp., 836 F. Supp. 373, 375 (S.D. Miss. 1993) (arguing that the state legislature, at least, should be able to reduce the speed limit at a specific crossing).

⁽vehicles may not block a crossing at any time). Railroads must install and maintain such signs and traffic control devices at public crossings as are required by the DOT. N.Y. R.R. Law § 53 (McKinney 1991).

Under New York law, crossing control devices are only required if ordered by the DOT.³⁴⁰ DOT ordered controls are sufficient as a matter of law.³⁴¹ Consequently, a plaintiff cannot argue that the railroad was negligent for failing to install a superior control device.³⁴² Trains also have a statutory duty to sound a warning before entering a grade crossing.³⁴³ Breach of the duty, however, is inadmissible as evidence of negligence.³⁴⁴ Nonetheless, a train may have a duty in tort to warn of its approach.³⁴⁵

Trains also have the paramount right of way at grade crossings.³⁴⁶ Motorists and pedestrians, therefore, must exercise caution commensurate with the risk posed at a crossing.³⁴⁷ Where visibility is impaired, motorists and

343. N.Y. R.R. Law § 53-b (McKinney 1991).

344. Vandewater v. New York & New England R.R., 32 N.E. 636 (N.Y. 1892).

345. Ritter v. Merenda, 606 N.Y.S.2d 956 (Sup. Ct. 1993). The duty is a question of fact determined solely upon the characteristics of the crossing and attendant circumstances. *Vandewater*, 32 N.E. 636. The railroad may have no duty to warn of an approach at a private crossing, but if the private crossing is used regularly by the public, a duty to warn may arise. McDermott v. New York Cent. R.R., 218 N.Y.S.2d 266 (App. Div., 3d Dep't 1961).

346. Siivonen v. City of Oneida, 306 N.Y.S.2d 278, 281 (App. Div., 3d Dep't 1970).

347. Delaney v. Town of Orangetown, 354 N.Y.S.2d 957, 960 (App. Div., 2d Dep't 1974).

^{340.} Bastek v. Lehigh & New England R.R., 192 N.Y.S.2d 134 (App. Div., 2d Dep't 1959); Ames v. Pennsylvania R.R., 186 N.Y.S.2d 367 (1959); Bailey v. Baltimore & Ohio R.R., 227 F.2d 344 (2d Cir. 1955).

^{341.} Callis v. Long Island R.R., 372 F.2d 442 (2d Cir. 1967).

^{342.} Bailey v. Baltimore & Ohio R.R., 227 F.2d 344 (2d Cir. 1955). If a traffic control device malfunctions, however, the malfunction may be used as evidence of negligence. Davis v. Long Island R.R. Co., 95 N.E.2d 700 (N.Y. 1950). Federal participation in the selection of crossing controls can also preempt state tort law. *CSX*, 113 S. Ct. at 1737 n.4 (any uniform safety standard concerning railroads or grade crossings may have preemptive effect under 49 U.S.C.A. § 20106). Federal preemption over grade crossing controls turns on the extent of federal involvement. Federal funds must actually be used, *Landrum*, 836 F. Supp. at 377, and the crossing improvements installed before preemption occurs. St. Louis Southwestern Ry. v. Malone Freight Lines, Inc., 39 F.3d 864 (8th Cir. 1994); Armijo v. Atchison, Topeka & Santa Fe Ry., 19 F.3d 547 (10th Cir. 1994). But see Shots v. CSX Transp., Inc., 38 F.3d 304 (7th Cir. 1994) (holding no preemption of state tort law where federal funding of statewide program to install standard crossbucks at all grade crossings was not a federal decision that crossbucks were a sufficient control device at any particular crossing).

pedestrians must "stop, look and listen" before proceeding over the grade crossing.³⁴⁸

The duty of care owed to pedestrians is complicated by the fact that, unlike vehicles, pedestrians may be found anywhere along a railroad's right-of-way. Section 83 of the New York Railroad Law prohibits persons from walking along the tracks, or traversing the same, except at a crossing, whether formal or informal.³⁴⁹ Walking along the railroad tracks always violates the statute.³⁵⁰ However, the railroad is never relieved from the duty to exercise a reasonable standard of care to a foreseeable plaintiff.³⁵¹ Breach of the duty can result in substantial awards.³⁵²

The availability of punitive damages depends upon the operator. The New York Court of Appeals has held that the state, and its political subdivisions, are not subject to punitive damages.³⁵³ This immunity was extended to the Long Island Railroad Company on the grounds that the parent corporation, the MTA, is a public benefit corporation performing an essentially governmental function.³⁵⁴ Thus, all MTA commuter railroads are immune from punitive damages. The im-

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^{348.} Id.

^{349.} N.Y. R.R. Law § 83 (McKinney 1991); Zambardi v. South Brooklyn Ry., 24 N.E.2d 312 (N.Y. 1939) (holding that the statute does not bar public use of customary pedestrian crossings).

^{350.} Merriman v. Baker, 348 N.Y.S.2d 622 (App. Div., 4th Dep't 1973); Waters v. Long Island R.R., 276 N.Y.S.2d 262 (Sup. Ct. 1966). Violation of the statute constitutes negligence *per se.* Carpino v. Baker, 412 N.Y.S.2d 617, 620 (App. Div., 1st Dep't 1979).

^{351.} See, e.g., Fuentes v. Consolidated Rail Corp., 789 F. Supp. 638 (S.D.N.Y. 1992) (holding that a sleeping homeless man, whose presence was unknown to the railroad, and who was a trespasser, was a foreseeable plaintiff because the railroad knew the area was used by homeless persons). The contributory negligence of a plaintiff, however, will reduce the plaintiff's award in proportion to the plaintiff's fault. N.Y. CIV. PRAC. L. & R. § 1411 (McKinney 1976).

^{352.} For example, where ordinary negligence by Conrail resulted in permanent and serious injuries to a homeless plaintiff, the court found an award of \$2,854,741.10 reasonable for plaintiff's pain and suffering, lost wages, and medical expenses. This award had been substantially reduced due to the plaintiff's percentage of fault. *Fuentes*, 789 F. Supp. at 638.

^{353.} Sharapata v. Town of Islip, 437 N.E.2d 1104 (N.Y. 1982) (personal injury action).

^{354.} Clark-Fitzpatrick, Inc. v. Long Island R.R., 516 N.E.2d 190 (N.Y. 1987) (punitive damages sought in tort claim arising from contract dispute).

munity does not apply to Conrail, a for-profit corporation, nor to Amtrak.³⁵⁵ Amtrak has requested legislative relief from punitive damages awards to passengers.³⁵⁶

Although liability is a significant issue, the limitations on recovery generally relieve the burden on the railroads, and consequently, the importance of the issue to public access. Nonetheless, federal regulations, existing liability, and public safety combine to require the removal of grade access (formal and informal) especially as a condition of high-speed rail service.

C. Property Law

1. Riparian Rights

Riparian rights in regard to public trust lands and waters are essentially ones of access.³⁵⁷ These rights relating to public trust waters are not absolute, rather they are subordinate to the state and federal governments when acting under the public trust to improve navigation. The riparian right of access is adversely affected in two situations: first, where the government interferes with riparian rights to improve navigation, and second, where the state grants public trust lands to a third party, for purposes unrelated to navigation, resulting in an interference with the upland owner's

This traditional right has been modified by statute. As of 1992, docks or wharves may no longer be built on state owned trust lands without the authorization of the state. 1992 N.Y. Laws 1368, 1369 (codified at N.Y. PUB. LANDS LAW § 75(6) (McKinney 1993)).

^{355.} See *Hearings*, supra note 15, at 29 (statement of W. Graham Claytor, Jr., President, Amtrak).

^{356.} *Id.* Despite requests, no congressional bill has contained tort reform provisions. However, the Federal Railroad Administration (FRA) has requested public comment concerning railroad liability and possible tort reform. 60 Fed. Reg. 15,814-815 (1995).

^{357.} The right of access includes the right to build a dock on underwater lands held by the sovereign, provided the dock is not inconsistent with applicable law and does not interfere with navigation. Town of Brookhaven v. Smith, 80 N.E. 665 (N.Y. 1907); People v. Vanderbilt, 26 N.Y. 287 (1863) (holding that construction of a dock outside the authorized pier line of New York City was a public nuisance).

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riparian rights. The second situation arises when submerged lands are granted to the railroad.³⁵⁸

In the first situation, where interference results from improvements to navigation, complete severance of the upland owner's riparian rights, standing alone, does not effect a taking.³⁵⁹ Riparian rights are always subject to the implied reservation of the sovereign's rights to improve navigation, even where the riparian rights are bolstered by a grant of submerged lands.³⁶⁰ If the upland owner pays for a grant of adjacent submerged lands, however, and improves them by constructing authorized wharves, the wharfage rights cannot be cut off without compensation.³⁶¹ The obligation to make payment does not rest on the loss of riparian rights, but rather on the loss of specifically conveyed wharfage rights which were subsequently relied upon.³⁶² The state's para-

361. Langdon v. Mayor of New York, 93 N.Y. 129 (1883); Williams v. Mayor of New York, 11 N.E. 829 (N.Y. 1887).

362. People v. New York & Staten Island Ferry Co., 68 N.Y. 71 (1877) (holding that unexercised right of wharfage was merely a license subject to subsequent limitations by legislation). First Const. Co. v. State, 116 N.E. 1020 (N.Y. 1917) (holding that if the state conveys a wharfage right, without conveying any fee interest in the submerged lands, the holder is entitled to compensation to the extent the right is exercised if the state subsequently extinguishes the right). But see Appleby, 271 U.S. at 364 (holding that an appropriation is not necessary to vest rights). See supra notes 162-70 and accompanying text for an analysis of Appleby. Appleby, however, suggests that no rights vest against the

^{358.} The Board of Land Commissioners' power to grant lands under water is restricted to grants to the upland owner. The only pertinent exception concerns the railroads. See supra part III.A.3.b.ii.

^{359.} Sage v. City of New York, 47 N.E. 1096, 1100 (N.Y. 1897).

^{360.} Id.; Lewis Blue Point Oyster Cultivation Co. v. Briggs, 91 N.E. 846 (N.Y. 1910) (holding that dredging a channel to improve navigation which destroyed valuable oyster beds on submerged lands received under a colonial grant was not a taking); Slingerland v. International Contracting Co., 61 N.E. 995 (N.Y. 1901) (holding that dredging operation to improve channel in Hudson River that interfered with upland owner's fishing, ice collection, and access to waters over submerged lands held under letters patent from the state did not effect a taking). But see Appleby v. City of New York, 271 U.S. 364 (1926) (holding that grant of submerged lands vested rights against the state, or its instrumentality, to improve navigation by dredging). Appleby distinguished Lewis Blue Point Oyster Cultivation Co. on two grounds. First, the colonial grant was merely proprietary and did not convey the public interest which could have been conveyed only by Parliament. Second, the interference with the submerged lands resulted from federal improvement of navigation, "and of course [the owners of the submerged lands] had to yield." Id. at 393.

mount interest is based in public trust doctrine, which limits riparian interests as against the state.³⁶³

In the second situation, where a railroad takes submerged lands under a grant from the state, and fills them to construct its road, the upland owner's riparian rights are not cut off.³⁶⁴ When a railroad takes title to a strip of uplands together with submerged lands from a private owner for a right-of-way, the railroad's title to the uplands does not sever the upland grantor from its riparian rights, nor does it make the railroad an upland owner within the meaning of the Public Lands Law.³⁶⁵ The rule is that the railroad's right to obtain lands for a right-of-way provides it with a limited fee which does not carry riparian rights, and thus cannot extin-

United States when improving navigation. 271 U.S. at 393 (citing Lewis Blue Point Oyster Cultivation Co. v. Briggs, 229 U.S. 82 (1913) (no taking where private oyster beds were destroyed to improve navigation)).

^{363.} Sage, 47 N.E. at 1101 ("[I]n every grant of lands bounded by navigable waters where the tide ebbs and flows . . . there is reserved by implication the right to so improve the water front as to aid navigation for the benefit of the general public, without compensation to the riparian owner.").

^{364.} Rumsey v. New York & New England R.R., 30 N.E. 654 (N.Y. 1892) (holding that riparian right of access to the river may be condemned by eminent domain, otherwise holder is entitled to damages if a railroad blocks access); Saunders v. New York Cent. & Hudson River R.R., 38 N.E. 992 (N.Y. 1894) (holding that riparian right of access enforceable in equity against the railroad). The uplands owner who takes title after the construction of a railroad, however, may not enlarge access, if access provided by the railroad was reasonable at the time the railroad was constructed. Hedges v. West Shore R.R., 44 N.E. 691 (N.Y. 1896).

^{365.} New York Cent. & Hudson River R.R. v. Aldridge, 32 N.E. 50 (N.Y. 1892). Under the Public Lands Law, only an upland owner can obtain a grant to adjacent submerged lands. See supra note 185 and accompanying text. The inability of the railroad to become vested with riparian rights by virtue of holding title to uplands for a right-of-way is clearly illustrated in In re Buffalo, 99 N.E. 850 (N.Y. 1912). There, the court held a railroad, who took title to uplands for a right-of-way, did not obtain riparian rights even when all uplands between its right-of-way and Lake Erie completely eroded, vesting the state with title in the resulting submerged lands. Riparian rights, however, might attach to appurtenant uplands held for general railroad yard purposes. Id. at 853-54 (stating in dicta that although the railroad may not have riparian rights by virtue of statutory limitations concerning use, a non-railroad grantee of the railroad's uplands might obtain riparian rights).

guish the riparian rights appurtenant to the upland owner's remaining lands.³⁶⁶

2. Adjoining Public Highways

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Public roads that are adjacent to, or terminate upon, navigable waters serve as public access to the waters.³⁶⁷ Where a bulkhead or pier is constructed at the end of a public street, the law will construe an easement across the improvement in favor of the public for access to the navigable waters unless the legislative authorization for the improvement explicitly restricts public access.³⁶⁸ A grant of wharfage rights and submerged lands to the adjacent upland owner will not be construed as inconsistent with a public easement over a pier erected at the end of a public street.³⁶⁹

Public Streets By Usage 3.

New York does not recognize a common law public easement by prescription, nor the more limited customary right of an identifiable community to use private property.³⁷⁰ There are statutory provisions, however, by which streets may become public by usage.³⁷¹ These statutory provisions provide

368. Knickerbocker Ice Co., 68 N.E. at 866.

369. Id. at 866-67.

^{366.} Aldridge, 32 N.E. at 54. One court attempted to distinguish the right of the state to interfere with riparian rights, as opposed to a railroad's inability to so interfere, on the grounds that a railroad takes submerged lands for private ends. Slingerland v. International Contracting Co., 61 N.E. 995 (N.Y. 1901). Such reasoning would render unconstitutional the authority of a railroad to acquire its right-of-way by eminent domain, a power that may only be exercised for a public purpose. See supra part III.B.4. The better reasoning, therefore, is that the railroad takes only a limited fee.

^{367.} Knickerbocker Ice Co. v. Forty-Second St. & Grand St. Ferry R.R., 68 N.E. 864, 866 (N.Y. 1903) (citing People v. Lambier, 5 Denio 9 (1847); In re City of Brooklyn, 73 N.Y. 179 (1878) (holding that public streets in New York City are held as public trust lands)).

^{370.} Post v. Pearsall, 22 Wend. 425 (N.Y. 1839); Gilles v. Orienta Beach Club, 289 N.Y.S. 733 (Sup. Ct. 1935), aff'd 288 N.Y.S. 136 (App. Div., 2d Dep't 1936). For a discussion of customary rights see Carol Rose, The Comedy of the Commons: Custom, Commerce, and Inherently Public Property, 53 U. CHI. L. REV. 711 (1986).

^{371.} N.Y. HIGH. LAW § 189 (McKinney 1979); N.Y. VILLAGE LAW § 6-626 (Mc-Kinney 1973).

that continuous use as a public road shall make the road public.³⁷² But, the courts have interpreted these statutory provisions to require more than public use. In addition to public use, the applicable local government must have adopted the road, usually by undertaking its maintenance.³⁷³ The use does not have to be hostile to the owner, but may be with the owner's permission.³⁷⁴

While usage may create public streets, their abandonment for six years may cut off the public right of use.³⁷⁵ Abandonment by non-usage only applies to streets where the fee to the underlying land is privately held.³⁷⁶ Abandonment depends upon the facts of the specific case.

The closure to vehicles is not determinative. If the obstruction is not across the entire width of the road, and a discernable path remains that follows the route of the prior road, the highway has not been abandoned.³⁷⁷ Even if the closure was wrongful, for example, by the construction of a building blocking the public road, discontinuance of public use for the statutory period of six years extinguishes the public right of use.³⁷⁸ The presumption is in favor of continued use, and the burden of proof lies with the party asserting abandonment.³⁷⁹

376. Barnes v. Midland R.R. Terminal Co., 112 N.E. 926, 929 (N.Y. 1916).

378. Barnes, 112 N.E. at 928. See also Town of Leray, 123 N.E. at 145 (where road was closed to public use by the railroad's construction of a terminal).

379. Hallenbeck, 299 N.Y.S.2d at 333.

^{372.} Id. Village Law requires public use for ten years. VILLAGE LAW § 6-626. The Highway Law, applicable to towns, requires public use for twenty years. HIGHWAY LAW § 189.

^{373.} People v. Underhill, 39 N.E. 333, 335-36 (N.Y. 1895).

^{374.} Spier v. Town of Utrecht, 24 N.E. 692, 694 (N.Y. 1890). There is doubtful authority for the proposition that if the use is hostile, then adoption by the local government is unnecessary to make the road public. Village of Wellsville v. Hallock, 139 N.Y.S. 961 (Sup. Ct. 1913).

^{375.} N.Y. HIGH. LAW § 205 (McKinney 1979).

^{377.} Town of Leray v. New York Cent. R.R., 123 N.E. 145 (N.Y. 1919); Mangam v. Village of Sing Sing, 50 N.Y.S. 647 (1898), aff'd 58 N.E. 1089 (N.Y. 1900). A court may find abandonment, however, where the road is overgrown and the use is sporadic and does not follow a clear trail. Hallenbeck v. State, 299 N.Y.S.2d 329 (Ct. Cl. 1969).

4. Private Easements and Farm Crossings

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Where the railroad acquires a right-of-way that divides private property under single ownership, the railroad is obliged to provide a crossing to join the divided estate.³⁸⁰ Although such crossings are termed "farm crossings" in the statute, the courts have held that the statutory duty applies to any use by the owner of the divided estate.³⁸¹ Once the portion of the estate which used the farm crossing is sold, the obligation to provide a farm crossing ceases.³⁸²

Where the language in the conveyance suggests an easement was retained by the grantor, the court will recognize the easement.³⁸³ Unlike a farm crossing, a private easement continues to serve the dominant estate regardless of common ownership, and consequently, may serve a residential subdivision.³⁸⁴

The conversion of a private railroad crossing to a public crossing (after 1897) requires the consent of the DOT.³⁸⁵ The private or public status of the crossing does not control public use of the crossing.³⁸⁶ There are several principles that support the right of the public to use a private crossing,³⁸⁷ at least where the crossing directly serves public trust lands and waters.

^{380.} N.Y. R.R. LAW § 52 (McKinney 1991).

^{381.} Syracuse Ready-Mix Concrete Co. v. New York, 350 N.Y.S.2d 474 (App. Div., 4th Dep't 1973).

^{382.} Smith v. New York Cent. R.R., 257 N.Y.S. 313 (App. Div., 4th Dep't 1932) (holding that "farm crossing" rights are extinguished when title to the properties served by the crossing are severed, thus preventing the use of a farm crossing for the purposes of a residential subdivision).

^{383.} Neuhaus v. Long Island R.R., 292 N.Y.S.2d 930 (App. Div., 2d Dep't 1968) (holding that language of conveyance reserving a "road or a farm crossing" sufficient to create an easement).

^{384.} See RESTATEMENT OF PROPERTY § 488 cmt. b (1944).

^{385.} See supra note 287 and accompanying text.

^{386.} The property served by the easement could be a business, in which case the public could use the crossing as invitees.

^{387.} The issue considered here is the right of the public to use a private crossing as against the railroad. If the crossing is part of a private road, the owner of the road controls use of the crossing. Under the railroad law, it is possible to have a public road where the crossing is private.

Since the railroad has the paramount right-of-way at grade crossings, an increase in the burden to the railroad from public use of a private crossing is nominal.³⁸⁸ The legislation defining a private crossing also recognizes that the public may actually use the private crossing.³⁸⁹ Although the railroad is protected in its reasonable use of its tracks, including its paramount right-of-way at the crossing, the railroad may not enjoin the reasonable use of a crossing within the expectations of the parties at the time the easement was created, or as shown by the subsequent use of the crossing.³⁹⁰ Where a crossing provides direct access to public trust lands and waters, public use of the crossing is a reasonable expectation of the parties.³⁹¹

D. The Effect of Substantive Law on Public Access

There is an array of legal doctrines that protect public access to the Hudson River, despite principles of railroad law that limit public access to protect operations and public safety.³⁹² Some of these doctrines are explicit,³⁹³ however,

392. Limiting public access to increase train speed is extrinsic to the public right to obtain access. See supra parts II.B.-D. and III.B.6. While the state has police power control over public safety, to the extent it is merely standing in the shoes of the railroad and closing crossings to improve operations at the least cost, the state is not acting in its police power capacity, but as a surrogate railroad which is unauthorized to eliminate public access. While place and manner restrictions on access are fully justified, see supra part III.C.4, these are properly micro adjustments and not prohibitions on accessing miles of shoreline in favor of one public park.

If state actions crossed an undefined threshold in limiting access (the courts have never attempted to define the exact extent to which the state may

^{388.} The railroad could argue, however, that increased use of the crossing burdens the railroad by increasing the likelihood of an accident for which the railroad may be liable.

^{389.} N.Y. R.R. LAW § 97 (McKinney 1991).

^{390.} See Board of Education v. Nielsen, 195 N.Y.S.2d 169 (Sup. Ct. 1959).

^{391.} This proposition is strongest where the crossing directly serves trust lands. The state's policy against the creation of new public crossings appears adverse to the public use of private grade crossings. Through public dedication of a private road, a crossing can become public in fact, except in the technical sense under the railroad law. The only recourse the state has, however, is closure of the crossing. See N.Y. R.R. Law § 93-a (McKinney 1991) (decision to remove grade crossing must include a determination that removal is in the public interest).

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the applicability of trust doctrine to public access in view of railroad grants and certain private grants has not been determined.

Grants to upland owners generally do not reserve a public interest by implication.³⁹⁴ Grants to the railroads have not been judicially construed in this regard. While railroad lands do not cut off private rights to access the Hudson River,³⁹⁵ public rights to access to the river across railroad lands have not been litigated. There is every reason to conclude that the public has a right to access public waters equal to that of upland owners.³⁹⁶

Whether railroad grants are defeasible estates has not been tested.³⁹⁷ Despite the unsettled law, applicable statutes and case law strongly suggest that the courts should find that the railroad takes no more than an easement to public trust

395. See supra part III.C.1.

396. The right of public access to trust waters is an essential element of the public's right to use trust waters. See supra part III.A.1. Points of access, where a public street runs along or terminates on the river, are not cut off by the filling of adjacent submerged lands. See supra part III.C.2. Furthermore, the railroad's statutory duty to extend docks and wharves impaired by the railroad implicitly requires the preservation of access to such places. See supra note 277 and accompanying text.

397. Although abandonment may be a fact sensitive question, when the railroad sells formerly granted lands, abandonment is conclusive. The state has not attempted to assert control of abandoned lands and there are procedural obstacles to alternate private actions challenging the validity of a grant. See supra part III.A.C.3.i. See also infra note 410 (concerning the public's ability to force the state to bring an action).

abdicate its trust, see supra part III.A.3.c.iii), it is possible that a public trust argument could be employed successfully, at least in the defense of a particular crossing, especially in view of the state's failure to formulate a comprehensive access plan despite the extensive closures that have adversely affected public access. See supra notes 8-10 and accompanying text. Insofar as public safety is the issue, safety is protected equally by limiting rail traffic and speed as by limiting public access.

^{393.} See supra parts III.B.1, III.C.2.

^{394.} The Court of Appeals has held that commercial or beneficial enjoyment grants convey unrestricted fee, subject to state and federal regulation of navigation. Some grants contain a condition subsequent, however, limiting the use to commercial purposes and docks. See supra part III.A.3.c.ii. Railroad grants, however, do not contain either beneficial enjoyment or commercial purposes language. The grants convey under a recital of the applicable railroad law, which permit grants for the purposes of the road. See supra part III.A.3.b.ii.

lands for the purpose and time necessary for its operations. Several principles support such a rule.

The general rule of construction is that nothing is taken from the sovereign by implication.³⁹⁸ This rule has added stature where the sovereign grants a specific use for lands held in trust for the public. The Board has no power to alienate trust lands, except as authorized by law: and the applicable statute allows the Board only to grant lands to railroads "for the purposes of their road."³⁹⁹

The courts have held that such conveyances impart a limited fee for the purposes of the road.⁴⁰⁰ This fee does not carry riparian rights, nor does it permit the railroad to block access to the Hudson River.⁴⁰¹ In addition, the legislature is powerless to grant fee simple absolute to approximately one hundred miles of the Hudson River shore under *Coxe*, *Long Sault*, and *Marba Sea Bay*.⁴⁰²

In sum, the fee is held for a reasonable and specific railroad use subject to the public interest in navigable waters. Therefore, the fee should be construed as no more than an easement subject to a condition subsequent.⁴⁰³ The reasoning is not limited to the right-of-way, but should apply to railroad stations, depots, or yards built upon formally submerged lands. Such improvements may warrant greater restrictions on public rights of access when in use. Upon abandonment,

401. See supra parts III.C.1. (Riparian Rights); III.C.2. (Adjoining Public Highways); III.B.1. (Statutory Protection of Access).

402. See supra part III.A.3.c.iii.

403. The effect of abandonment on the railroad's title normally depends upon whether the railroad took the lands by eminent domain or purchase. See supra part III.B.4. Railroad grants are taken neither by purchase nor eminent domain. The effect of abandonment on trust lands is a question of first impression in New York. In Vermont, however, the state supreme court has held that grants of trust lands to railroads contain a condition subsequent and that the state has the power of re-entry upon abandonment. State v. Central Vt. Ry., Inc., 571 A.2d 1128, 1135 (Vt. 1989).

^{398.} Shively v. Bowlby, 152 U.S. 1, 10 (1894); People v. New York and Staten Island Ferry Co., 68 N.Y. 71, 77 (1877); Lansing v. Smith, 4 Wend. 9, 18 (N.Y. 1829).

^{399.} Act of Apr. 2, 1850, ch. 140, § 25, 1850 N.Y. Laws 223 (current version at N.Y. R.R. Law § 18 (McKinney 1991)).

^{400.} See e.g., New York Cent. & Hudson River R.R. v. Aldridge, 32 N.E. 50, 54 (N.Y. 1892).

however, the limited purpose for which they were carved out of public trust lands should not create a residual private property interest superior to the paramount interests of the people and the sovereign power of the state.

Public use of idle railroad lands to access the river also is consistent with the principle that the railroad only takes trust lands as an easement.⁴⁰⁴ The only question, therefore, is whether public use unreasonably interferes with railroad operations, viewed at the time the easement was granted.⁴⁰⁵ Although the state might prohibit such use, and the necessary crossing of the right-of-way, it has not done so.⁴⁰⁶

The grant of trust lands to the upland owner also adversely affects public access to the river.⁴⁰⁷ There is a presumption against the right of the public to use lands granted to the upland owner.⁴⁰⁸ Where grants contain a condition

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^{404.} Without clear abandonment, the state is unlikely to seek annulment of grants made to the railroad. The state is actively seeking to expand passenger service on the eastern shore. See supra part II.B. In addition, the courts tend to protect the property interests of grantees who improved submerged lands in reliance on their grants. See, e.g., Williams v. Mayor of New York, 11 N.E. 829 (N.Y. 1887). Nonetheless, because the magnitude of the railroad grants was so great, the courts may avoid the issue of validity by construing the grants as reserving public interests that do not unreasonably interfere with the operation of the railroad. See e.g., Marba Sea Bay, 5 N.E.2d 824, 829 (O'Brien, J., dissenting) (arguing that although a grant conveyed trust lands to the low water mark, the grant conveyed no more than a fee subject to public use under the trust doctrine).

^{405.} See supra notes 389-91 and accompanying text.

^{406.} The statutory prohibition on public use of the railroad right-of-way does not prohibit the public from crossing the tracks. *See supra* note 349.

^{407.} The New York Court of Appeals has validated the piecemeal privatization of trust lands while espousing general principles inconsistent with such privatization. See e.g., supra notes 237-47 and accompanying text. The contradiction, and unwillingness to unequivocally approve the power of the state to absolutely alienate trust lands, see supra notes 245-46 and accompanying text, illustrates judicial restraint and an appreciation of separation of powers. Nonetheless, the reluctance of the court to approve conveyances that serve no public purpose, and indeed injure the public, serves as a warning that the legislative and executive branches must not go too far.

^{408.} See supra part III.A.3.c.ii. In re Waterfront allowed some exceptions by recognizing two cases which engrafted a public use on private grants because of the factual circumstances. In re Waterfront, 157 N.E. 911, 916-17 (distinguishing Thousand Island Steamboat Co., 71 N.E. at 764; Harper v. Williams, 18 N.E. 77 (N.Y. 1888)).

subsequent, however, the state may retain the power of reentry.⁴⁰⁹ There is a basis for public enforcement of the power of re-entry regardless of state cooperation.⁴¹⁰

IV. Recommendations

A. Introduction

There are two primary areas of concern that affect access to the Hudson River. First, the privatization of the shore is inimical to access. In this area there are two related issues which require determination. One, the railroad's title to excess lands and its ability to convey excess lands to private parties is an issue. The second issue is whether the state has any remaining interest in previously submerged shore parcels granted by the state to the adjacent upland owners.

The second area of concern is the closure of crossings. This area also raises two related issues. First, the impetus for crossing closures, safety and high-speed rail proposals, should not be accepted without question. Second, the present methods employed by the state to close crossings also warrant critical inquiry. The public should require the state to provide a coherent Hudson River access plan, in view of present and anticipated use requirements.

Each of these issues shall be developed below. Some of these recommendations call for a clarification, or a development, of existing law. Law is not immutable, but serves public policy. The health of the river was ignored for centuries. Over the past thirty years, the degradation of the river became contrary to public policy and laws designed to protect the river developed. Likewise, as the health of the river is restored, and with it meaningful recreational use and commercial fishing, the policy which ignored public access should change, and with this change in policy, the development of

^{409.} The power is restricted by the statute of limitations. See supra part III.A.3.c.i. The statute permits adverse possession against the sovereign. The permission is not constitutionally required, but is only a matter of policy.

^{410.} The statute requires the Attorney General to bring an action to void a grant for failing to fulfill a condition subsequent. A member of the public should be able to compel the state to bring the action because the duty is mandatory. See supra part III.A.3.c.i.

law designed to protect access is required. Accordingly, legal principles concerning access will need refinement, and in some instances, reconsideration, in view of the needs of today and tomorrow.

B. Privatization of the Hudson River Shoreline

1. Grants to the Railroads

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The railroads, as they appear today, are the result of a long history. Stations have opened and closed, the right-ofways have been realigned and widened, additional tracks have been laid and some tracks have been abandoned. Partly as a result of these changes,⁴¹¹ the railroads have come to own excess lands, many of which were formerly submerged lands.⁴¹² The extent to which these lands are truly excess can be debated in any particular case. Nonetheless, the railroads, throughout their history, have sold excess lands for profit.⁴¹³ Where these sales created private property, the public has, in certain situations, been cut off from the river.

The state legislature and the courts have distinguished the rights of the railroads to sell excess lands depending upon the use made of the land (for a right-of-way or a station) and the form of acquisition (by purchase or condemnation).⁴¹⁴ These limitations and rights do not apply, however, to formerly submerged lands. Such lands were acquired by grant (neither through purchase nor condemnation), although nominal sums may have been paid.⁴¹⁵ The state, through legislation or litigation, has never attempted to define the railroads'

^{411.} The railroads have also purchased lands which were never necessary for their use as railroads. The purchases with which the author is familiar may have been negotiated with grantors of additional rights-of-way where the remaining shore lands were not wanted by the grantors.

^{412.} See, e.g., PACE REPORT, supra note 7, at B-11.

^{413.} See, e.g., id. The railroad title maps of 1917 indicate many sales of railroad lands (the maps were updated sporadically with title information until the 1960s).

^{414.} See supra part III.B.5. (Abandonment of Railroad Lands).

^{415.} See supra notes 212-20 and accompanying text (e.g., \$500 compensation paid by the New York Central and Hudson River Railroad for the entire right-of-way and stations built upon submerged lands along the eastern shore of the river).

right to sell those lands.⁴¹⁶ The state has routinely acquiesced, however, to the sale of such lands by granting to the railroads' grantees any residual interest the state may have in the lands.⁴¹⁷

The legislature should require a right of first refusal, for a nominal sum, in favor of the state for all railroad sales of formerly submerged lands. The state should be obliged to exercise the right unless it finds that the lands in question cannot serve a public use related to the Hudson River. The findings should be made only after public notice and comment with a final determination not to purchase subject to judicial review.⁴¹⁸

In addition, the state should be authorized to re-enter and take title to idle lands conveyed by grant to the railroad.⁴¹⁹ The public should be permitted to petition the state to re-enter railroad lands and to obtain judicial review if the state refuses to take action.⁴²⁰ In any action by the state to quiet title, a summary proceeding should be provided to lessen the state's burden of proof. The state should prevail upon proof that the formerly submerged lands were granted by the state. The railroads must carry the burden to prove that the lands are still required for railroad purposes.

419. Where the right of first refusal will halt the sale of railroad lands, it will also deter the railroad from attempting the sale of excess lands. A right of reentry asserts the state's continuing interest in trust lands granted to the railroad and provides a mandate for the state to assert title. The codification of the procedure is consistent with a long line of judicial cases construing the railroad's fee in submerged lands. See generally part III.D.

420. To deter frivolous litigation, the petitioner could have the obligation of presenting a *prima facie* case that the idle lands have not been used for railroad purposes for five years.

^{416.} Some grants, however, contain an express reservation on the part of the state to revoke the grant. See supra note 215 and accompanying text.

^{417.} The state may grant all its remaining interest in previously granted lands without public notice. See supra notes 192-93 and accompanying text.

^{418.} This procedure would halt the sale of excess railroad lands to private parties unless there are exceptional circumstances. The procedure merely ensures that the state is aware that its power of re-entry has matured, see supra notes 221-25 and 274, and accompanying text, which serves to protect trust interests as well as the title of railroad grantees. Finally, judicial review of a state decision not to purchase merely provides an alternate to an action to compel the state's power of re-entry. See supra text accompanying note 224.

This proposed legislation clearly asserts the state's control over formerly granted lands which are not used for railroad purposes. Such legislation, however, should not be viewed as creating a new property interest in the state, but rather as providing a procedure for discharging an existing obligation under public trust doctrine. This obligation should be recognized by the courts if the legislature fails to act.⁴²¹

2. Grants to Upland Owners

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While the proposed legislation concerning railroad grants does not directly conflict with existing law, any reversionary interest in the state for grants to upland owners may conflict with private property interests which have been recognized for too long to permit their loss without effecting a constitutional taking.⁴²² Nonetheless, the state has at least two options to mitigate the harm caused by granting trust lands without effecting a reversal of judicial precedent, however questionable that precedent may be.⁴²³

Although law in New York concerning the state's reserved interests in grants of trust lands is complex, the law is reasonably clear that the state may convey title without any reservations under certain circumstances.⁴²⁴ This rule conflicts with trust doctrine because it permits the interference with public rights merely to confer a private benefit to an up-

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^{421.} The danger of the state asserting a "new" property interest is that the state's action may give rise to a takings claim under the state or federal constitution. See supra part III.A.2.c.v. The proposed legislation, however, is consistent with principles of public trust doctrine and railroad law.

^{422.} Grants to the upland owner generally convey absolute fee unles_ they contain a condition subsequent or an explicit reservation See supra part III.A.3.c.ii.

^{423.} For a discussion of the cases which concern extinguishment of the public trust, see supra notes 162-70 (Appleby), 236-51 (Steeplechase), and 228-31 (In re Water Front).

^{424.} For example, grants of trust lands for unrestricted "beneficial enjoyment," for consideration, and where the lands are appropriated by the grantee, are held in fee simple absolute, provided the grant is not of such magnitude as to be void as an impermissible alienation of the public trust. See supra part III.A.3.c.ii. One United States Supreme Court decision, however, holds that appropriation of the submerged lands is not essential to vesting absolute title, where compensation is paid. Appleby v. City of New York, 271 U.S. 364 (1926). For a criticism of Appleby, see supra notes 165-70 and accompanying text.

land owner.⁴²⁵ The state serves no public interest by abdicating its sovereign duty as trustee. Consequently, the state should be prohibited from conveying absolute grants of trust lands and from conveying any remaining interest it may have in lands previously granted.⁴²⁶

In addition to a prohibition on absolute grants, the state should assert a retained interest in grants subject to the condition subsequent that the lands may only be used for the purposes of erecting docks and commerce.⁴²⁷ Public use of commercial grants should be encouraged where feasible.⁴²⁸ Where granted trust lands have become so polluted that they

^{425.} The case which stated the rule attempted to reconcile the interference with trust doctrine: "During all our history the Legislature and the courts have recognized that the public interest may require or at least justify a limited restriction of the boundaries of navigable waters." People v. Steeplechase Park Co., 113 N.E. 521, 526 (N.Y. 1916). No justification in the public interest, however, was offered in the case and none seriously can be argued now. Only three of the seven judges concurred in the opinion, thus the court was unable to agree on a rationale for the rule. See supra notes 418-26 and accompanying text.

^{426.} Limited absolute conveyances were permitted, in part, to bring what were considered waste lands (wetlands) into productivity. The policy was based upon ignorance and the law that advanced the policy is no longer appropriate. See Marks v. Whitney, 491 P.2d 374, 380 (Cal. 1971) (stating that newly recognized scientific and ecological values of wetlands are not subordinate to "outmoded" use preferences). A major doctrinal problem under the present jurisprudence is that the state may incrementally achieve what it is prohibited from doing with a single grant, that is, the privatization of miles of waterfront. See supra part III.A.3.c.iii. The logical inconsistency is solved by prohibiting absolute alienation.

^{427.} Commercial grants between 1835 and *circa* 1890 probably contain a condition subsequent restricting use to docks and commercial use, *see supra* notes 227-32 and accompanying text; consequently, the state retains the power of re-entry.

^{428.} The assertion of a public right to use some privately held trust lands would open new opportunities for public access, and help facilitate a system for public trails along the river. New York has not recognized the absolute right to exclude the public from formerly submerged lands (under lesser grants than for unrestricted beneficial enjoyment). See supra note 410 and accompanying text. Public use may be, therefore, a fact sensitive legal question. To avoid uncertain, case by case litigation, a legislative declaration would create a presumption in favor of public access to lands granted for commercial purposes. The owner of such lands would then have the burden of showing that public access is incompatible with the adapted use. Such a burden could be met by proof, for example, that the property is adopted to private residences. However, where the trust lands have become derelict industrial sites, or abandoned wharves, then a right of public access should prevail. Such legislation would alter the

pose a danger to remaining trust lands and waters, the state should revoke the grant.⁴²⁹

C. Closure of Crossings

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1. High-Speed Rail

Under Governor Cuomo, New York State formalized a long-standing plan to create a high-speed inter-city rail system along the Hudson River. The premise for the plan is that the state should encourage the best transportation at the least cost. The premise appeals to common sense, but the costs are more difficult to quantify than the state proposal acknowledges.

The construction of the railroad on the shores of the river during the last century also provided, in theory, the best transportation for the least cost. Along the Hudson was a great supply of public lands, dramatically reducing the railroad's cost of land acquisition for the right-of-way. In addition, the river offered a grade superior to any inland route. This least cost route, however, has bound the shores in rip rap and iron and created the access problem that is the subject of this article.

Further development of the railroad infrastructure to support high-speed rail will exacerbate the problems associated with the railroads.⁴³⁰ The removal of grade crossings (without alternate access provided for the informal crossings not recognized by the DOT), fencing the right-of-way, increased rail traffic (and consequent increase in noise) will all serve to solidify the barrier to the river by enlarging a loud, dangerous.⁴³¹ and unsightly presence on the river. Because

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law by turning the limited exception recognized in *In re Waterfront* into a limited presumption in favor of public access. *Id.*

^{429.} A sufficient showing for revocation could be found where the site is subject to enforcement actions under federal and state environmental laws. There are numerous abandoned industrial sites built on public trust lands that pose a hazard to the river. See e.g., Editorial, Havoc-on-Hudson, N.Y. TIMES, Oct. 21, 1995, at A20 (describing a contaminated thirty-two acre industrial site in Hastings-on-Hudson). The application of trust lands to uses that injure remaining trust waters arguably violates the condition subsequent where it applies.

^{430.} See supra part II.C.

^{431.} See supra part III.B.6. (Tort Liability and Public Safety).

this process is "incremental," the state has refused to consider these adverse effects, alternate routes or taking no action in an appropriate EIS process.⁴³²

The state should not assume that high-speed rail is good for New York without consideration of its adverse impacts, nor for the river communities which will receive little benefit from high-speed rail service, and yet will bear most of the burdens associated with the service. The decision should be reconsidered, the feasibility of alternate routes and services should be analyzed, and the adverse effects of high-speed rail should be carefully weighed with the purported benefits of such service along the Hudson River line.

In short, the state should undertake its responsibility to carefully study the high-speed rail proposal through the appropriate EIS process in which the public has an opportunity to comment.⁴³³ The DOT should stop making "improvements" for railroad operations until the state formulates a transportation plan that is consistent with a plan for public access to the Hudson River.

2. Comprehensive Planning

Grade crossings are closed under a case by case process. Although there is public notice,⁴³⁴ the closure is typically negotiated between the DOT and the affected local community.⁴³⁵ As a consequence, there is no statewide planning as part of the process.⁴³⁶

The decision of the DOT, supported by the State Department and DEC, not to develop a general access plan through

^{432.} See supra part II.D

^{433.}

^{434.} See supra part II.C.2.a.

^{435.} See, e.g., PACE REPORT, supra note 7, at B-35 to B-36 (closure proceeding in Cornwall-on-Hudson).

^{436.} The input of the Greenway Council provides, to some extent, oversight of closures from the broader perspective of public access to the river as a whole. *See supra* note 141 and accompanying text. Participation by the Greenway, however, has been insufficient to promote general public participation, largely because Greenway has conceded that closures should be accorded a case by case treatment.

an EIS process,⁴³⁷ facilitates closures in two ways. First, a decision concerning a grade crossing elimination is made by the DOT and a local community. The DOT is in a strong position to negotiate, because of its jurisdictional power and control over funds which it can make available to a community to improve or create public amenities. Second, the one on one negotiations fostered by the DOT exclude input from the public at large on the broader issue of access generally. Whereas local communities may view waterfront development as a potential source of tourist revenue, they frequently are not interested in providing an access point for the general public.⁴³⁸

The Hudson River is a public resource and a comprehensive plan to provide access is a public concern. The means adopted by the state government concerning the elimination of public access have precluded general public participation. This position by the state is strengthened by the interests of local communities, who might be appalled by the idea that outsiders should have a voice in the decision-making of "local" access questions.⁴³⁹

The problem is one of priority. The present system facilitates closures.⁴⁴⁰ The priority, however, should not be closures, but enhancement of public access. The state should place a moratorium upon closures until it creates a river wide plan for public access. Part of the plan should consist of a thorough inventory of existing and potential crossings, and an inventory of public crossings that have been closed illegally (without formal proceedings).

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^{437.} See supra part II.B.3.c.iii.

^{438.} For example, many communities limit outside use of a public boat ramps and waterfront parks by prohibiting parking without a local permit.

^{439.} Regulations under the Coastal Law require state agency consideration of access for "all the public." See supra note 74.

^{440.} The mandate to close crossings applies to railroads generally. See supra part III.B.2. The mandate to improve and protect access is both independent of railroad law, see supra notes 70-75 and accompanying text (describing coastal policy) and a part of railroad law. See supra part III.B.1. An executive decision to subordinate public access to railroad operations, without formal analysis or consideration, see supra part II.D., is an arbitrary and capricious election in contravention of relevant statutory and case law.

The DOT may be institutionally unable to prioritize public access over its primary mission, the safe improvement of the transportation infrastructure.⁴⁴¹ The presence of grade crossings, especially informal pedestrian crossings, is an obstacle to the DOT mission. The study, therefore, should not be conducted by the DOT, but by the State Department of New York, which the legislature has charged with the duty of protecting and enhancing coastal resources and access to the same.⁴⁴² By placing the jurisdiction over crossings and fencing that implicate coastal access in the hands of the Secretary of State, the DOT will be relieved of an inherent conflict between access and transportation improvements. At the same time, access to the Hudson River, will be given priority over transportation improvements. The structural reordering of these priorities is essential to the preservation and enhancement of access to the Hudson River.

V. Conclusion

An appreciation for the Hudson River is where efforts for improved access must begin. The pollution the river has suffered has unquestionably tainted public perception. Underlying the recommendations of this report is a view of what the river may become again: a resource that may be used for swimming and fishing without apprehension, a place where

^{441.} In certain instances, the DOT has done an excellent job to improve public use of the Hudson River. The DOT activities concerning Castleton Island State Park and the Village of Castleton-on-Hudson provide an excellent example. See PACE REPORT, supra note 7, at B-3 to B-5. Nonetheless, the DOT is seeking to concentrate public use of the river by restricting access points to discrete parks and public facilities served by grade-separated structures. As a consequence, the DOT has a strong incentive not to raise the question of public access to an old wharf or spit of undeveloped land, used by the public despite a lack of improved access. Access is an obstacle for the DOT, it has no incentive to multiply the crossings that it must face. It is unreasonable to expect the DOT, faced with the task of eliminating grade crossings, to multiply its work, and the cost of accomplishing its work, by seeking out new crossing opportunities, identifying illegal closures, and by formally recognizing existing informal crossings.

^{442.} Under the Coastal Law, any state action that affects public access to the Hudson River is subject to approval by the Secretary of State, thus it should be the lead agency in the preparation of an EIS. *See supra* part II.D. (summarizing New York State coastal management law).

birdwatchers may enjoy a flock of mergansers without the nagging concern that the ducks' fatty tissues are contaminated by PCBs. These fears and concerns subtly influence the public. A walk in the mountains may be preferred to a canoe trip or a walk along the river, without full awareness that the preference is influenced by an aversion to the river's pollution. This subtle influence is a contaminant, precisely of the same nature as the contaminants that have been allowed to pollute the river. In this frame of mind, a permanent loss of access becomes secondary to the running of a faster train.

Improving public access turns the public's face to the river and provides a plan to enjoy the river for what it offers today and tomorrow. Ready access to quiet spots where one can picnic, swim, fish, or launch a kayak, are precious to the quality of life. The alternative, highly controlled access to limited public parks, creates a gauntlet of highways, user permits, parking lots, weekend crowds, and lines to the snackbar. Large public parks can provide excellent amenities, and can serve to protect fragile ecosystems, however, these functions are maximized where they do not provide the only access.

The concern for public access is not new. The protection of access is embodied in the public trust doctrine, a tradition of law reaching into antiquity. The right to use a healthy river is implicit in the trust doctrine, and measures that deny public use, whether through the removal of access or through the pollution of the river, are highly suspect under established principles of law. Although some of the proposed recommendations for improving public access call for a modification of the law, the changes are designed to protect traditional public rights that changing conditions have eroded.

By subordinating the interests of the railroads to the public's right of access, and by limiting the power of the state to alienate its responsibilities under the public trust, the judiciary has affirmed a doctrinal basis upon which the public can assert a right of meaningful access to the Hudson River. While the judiciary has prohibited the substantial alienation of the Hudson's shore, the state's executive and legislature

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have been allowing or aiding this very result. Such governmental abdication and complicity are illegitimate. The current administration, under Governor Pataki, has the opportunity to reverse this tendency. The legislature and executive have the opportunity to build upon the doctrinal basis and assert what is both a sovereign duty and a sovereign power: the public trust interests of the people of the State of New York through the protection and enhancement of public access to the Hudson River.