


CREATING AND MAINTAINING HUDSON RIVER VIEWS

A **HANDBOOK** FOR LANDOWNERS

NEW YORK STATE | Department of Environmental Conservation | Hudson River Estuary Program

NE IW PCC

PROJECT TEAM AND AGENCY PARTNERS

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NEIWPCC is a regional commission that helps the states of the Northeast preserve and advance water quality. NEIWPCC engages and convenes water quality professionals and other interested parties from New England and New York to collaborate on water, wastewater, and environmental science challenges across shared regions, ecosystems, and areas of expertise.

The **Hudson River Estuary Program** helps people enjoy, protect, and revitalize the Hudson River and its valley. The Program's approach includes research, education, and training, natural resource conservation, and community planning assistance.

Saratoga Associates, Landscape Architects, Architects, Engineers and Planners partnered with **SUNY College of Environmental Science and Forestry** (ESF) to develop a series of ecologically-friendly Best Management Practices (BMPs) identified through research of existing visual and ecological conditions along the Hudson River.

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SARATOGA ASSOCIATES
Landscape Architects, Architects, Engineers, and Planners, P.C.

ESF State University of New York College of Environmental Science and Forestry

Staff Acknowledgments

NEIWPCC: Peter Zaykoski

NYS DEC & Hudson River Estuary Program:
Fran Dunwell
Sherri Mackey
Becky Thomas
Laura Heady
Nate Nardi-Cyrus

Saratoga Associates:
Emily Gardner
Matthew Allen

SUNY ESF:
Robin Hoffman
Caroline Horgan (Saratoga Associates Intern)

Cover Photos:
Pitcher Plant - Caroline Horgan
Marsh Wren - Tom Koerner
Monarda - Caroline Horgan
Wood Frog - Megan Johnson
Greenport Conservation Area - Emily Gardner

Handbook diagrams developed by Caroline Horgan.
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Project Stakeholder Meeting at Wilderstein Historic Site
NYS DEC

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Emily Gardner

INTRODUCTION

SCENIC VISTAS & THE HUDSON RIVER VALLEY

The Hudson River Valley landscape has long been recognized for its scenery, from the river itself to the hills and mountains, large forests, working farms, unique habitats, and cities and towns along its banks. The features of the Valley have drawn artists, settlers, and tourists and continue to be a source of inspiration for both locals and visitors alike. Many historical views of the Hudson River resulted from forest clearing to support agriculture and industry, while others were carefully created by designers such as Andrew Jackson Downing.

This handbook recognizes the principles that influenced the valley's history, while charting a path forward for developing aesthetic improvements in a manner which preserves and benefits the ecology that makes this landscape unique and rich in diversity.

ABOUT THE HANDBOOK

This handbook provides landowners with principles and best practices for establishing and maintaining scenic vistas within the Hudson River Valley in ways that are consistent with ecologically-mindful, naturalistic design principles. It has been designed for use by individuals as well as institutional property owners of parks, preserves and historic sites.

STAKEHOLDER OUTREACH

Throughout the development of this handbook, input and guidance was received from a group of stakeholders, including representatives from State agencies, historic properties, environmental groups, municipalities, educators, and design professionals. Representatives from these groups informed many of the principles relayed throughout the handbook.

CASE STUDY RESEARCH

The project team reviewed the available literature to ensure that the handbook would be based on sound science, principles of ecosystem-based management, and historic landscape principles. The principles and best management practices outlined in the handbook were based on information gained in reviews of case studies, historical documents, environmental best management practices, and maintenance considerations, as well as well as consulations with local property owners. The success of scenic view creation is dependent upon a wide variety of factors. In addition to ecological, environmental, visual, and historic considerations, elements such as zoning and regulatory factors, project implementation costs, ease of best management techniques, and capacity for long-term maintenance can affect the ultimate longevity of a view.

In preparing to develop the handbook, research was conducted on a variety of national scenic areas of note, Hudson River shoreline properties and comparable locations. This was done in order to examine the criteria that other areas have used when selecting a location for creating a view as well as to learn about successful and unsuccessful experiences and maintenance practices. Case studies serve as a valuable tool to gain insight into common practices, problems, drivers of decision-making, opportunities and constraints that may influence the implementation of best management practices.

EXAMPLE PROJECTS

Stakeholder input and background research informed the selection of two scenic vista demonstration projects – one at The Point within Mills-Norrie State Park in Staatsburg, and the other at Blithewood on the campus of Bard College. These projects were used as a medium to test the ideals and principles relayed within this document. Lessons learned from these projects have been incorporated in the Example Projects section of the handbook.

View from Wilderstein Historic Site in Rhinebeck

SCENIC QUALITY

The natural landscape and visual quality of a community provide it with a sense of pride and individuality, setting it apart from other places. Special vistas, views, and scenic areas contribute significantly to the quality of life, add to property values, and enhance the cultural value of a community.

The Hudson River Valley retains a mixture of historic and working landscapes. The philosophies of the "natural" landscape, the picturesque, and the romantic movements all historically influenced the creation of views within the Hudson River Valley. Much of the Hudson River Valley region is classified as a Scenic Area of Statewide Significance, recognizing that it is a unique, highly scenic landscape renowned for its outstanding quality.

Preservation, restoration, and enhancement of the historic landscape are overarching objectives of viewshed creation. This handbook explains how the principles of ecological enhancement, maintenance, and historical values can work together in the enhancement of scenic quality.

ADAPTING 19th CENTURY PRINCIPLES TO THE 21st CENTURY

The Hudson Valley and all of its beauty were of great importance in the development of the American identity in the 19th century. At this time, Americans were only just beginning to understand their natural landscape, and the Hudson River Valley fostered a new human relationship with the natural world. A new style of painting began to develop through this unique landscape, and the group of artists painting in this style would later be known as the Hudson River School. It was also here where American literature first became embedded in the American Landscape.

ANDREW JACKSON DOWNING

At the same time, the influence of wealthy families that owned extraordinary homes in the Hudson River Valley began to spur a new way of thinking in garden and architectural design. The iconic American Landscape was beginning to become more defined, particularly through writings of a prominent garden designer Andrew Jackson Downing. Downing is most notably known for promoting ideologies driving the Romantic Picturesque Movement, integrating English practices and principles into modes that were more suited to North America.

THE BEAUTIFUL AND THE PICTURESQUE

Downing described two primary modes for landscape design: “the beautiful” and “the picturesque.” He first defined these in *A Treatise on the Theory and Practice of Landscape Gardening to North America.* The “beautiful,” he said, displays gently flowing lines, regularity and roundness, balance and symmetry, perfection and repose. The “picturesque” exhibits almost the opposite, emphasizing irregularity and rough broken shapes in the landscape. Downing never stated one mode being above the other; rather the mode chosen should reflect the character of the site where it is to be implemented. Downing and the other landscape designers of his day also thought about how a person might move through the landscape. They proposed creating a variety of visual experiences from different vantage points on a property, with a glimpse of the river here and an open meadow there, accented by a specimen tree, or rocks, or a pond, or natural waterfall.

DOWNING’S PRINCIPLES TODAY

Downing’s principles were widely embraced in the Hudson River Valley, and his book remained in print for decades, long after his death. Today, the Hudson Valley landscape

still bears his imprint and that of his collaborators and successors, including Calvert Vaux, Alexander Jackson Davis, and Frederick Law Olmsted. Picturesque and beautiful landscapes can be found in Central Park and Riverside Park in New York City, and at historic sites and parks along the Hudson, such as Olana, Wilderstein, Poet's Walk, Harrier Hill, Montgomery Place, Pocantico Hills, and in the many rural cemeteries in the region. Further inland, Mohonk Mountain House and Mohonk Preserve exhibit these principles.

This guidebook aims to continue the scenic principles set forth by the Hudson River School of painters, prominent literary figures, and particularly the landscape ideals of A.J. Downing. Downing aimed to create designs that blended with the existing natural scenery of the Hudson River Valley, which are consistent with the best management practices found in this handbook. Through these principles, we aim to provide a source that will aid in the retaining of the iconic character of the Hudson River Valley that so many hold dear.

Etchings from A.J. Downing's *Treatise on the Theory and Practice of Landscape Gardening.*

STEPS TO VIEW CREATION

NOTE:
The steps to view creation are not strictly linear, and, in certain cases, the order of tasks will depend on the site and some may even occur in tandem with others. It is also important to consider public outreach if the site you are working on is open to the public or could impact the public.

STEP 1

GETTING STARTED

1. DETERMINING THE BASICS
2. CONSERVING NATURAL RESOURCES

STEP 2

PLANNING YOUR VIEW

1. DETERMINING VIEW TYPES
2. DETERMINING VIEWER POSITIONS
3. VIEW ORIENTATION
4. VIEW COMPOSITION

STEP 3

CREATING YOUR VIEW

1. PLANNING FOR WORK
2. SELECTING BEST PRACTICES
3. DETERMINE VIEW CREATION METHODS

STEP 4

AFTER VIEW CREATION

1. MANAGING DOWNED TREES
2. REVEGETATION TECHNIQUES
3. SLOPE STABILITY & INVASIVE SPECIES

STEP 5

MAINTAINING THE VIEW

1. VIEW MAINTENANCE & MANAGEMENT PLANS

Grassland Survey at Poets' Walk Preserve in Red Hook, NY-
Hudson River Estuary Program

STEP 1

GETTING STARTED

Before putting together a plan for creating a view, it is important to gather some initial information. This can be useful for coordinating with your municipality and may come in handy when contacting a contractor to assist in creating the view. This initial information includes...

1. DETERMINING THE BASICS
2. UNDERSTANDING NATURAL RESOURCE MANAGEMENT
3. INVENTORY & ANALYSIS

DETERMINING THE BASICS

THE SITE

The first step is to gather general information about the site, noting what is there now and what experiences you wish to create or maintain.

THE BIG PICTURE

Next, consider the 'big picture,' both literally and figuratively. It is important to understand the context of a site when creating a view, and can be helpful to have a map to work with as you plan. The background of the map could be an aerial photo (i.e. from Google), and it could be complemented by a property boundary survey (if available).

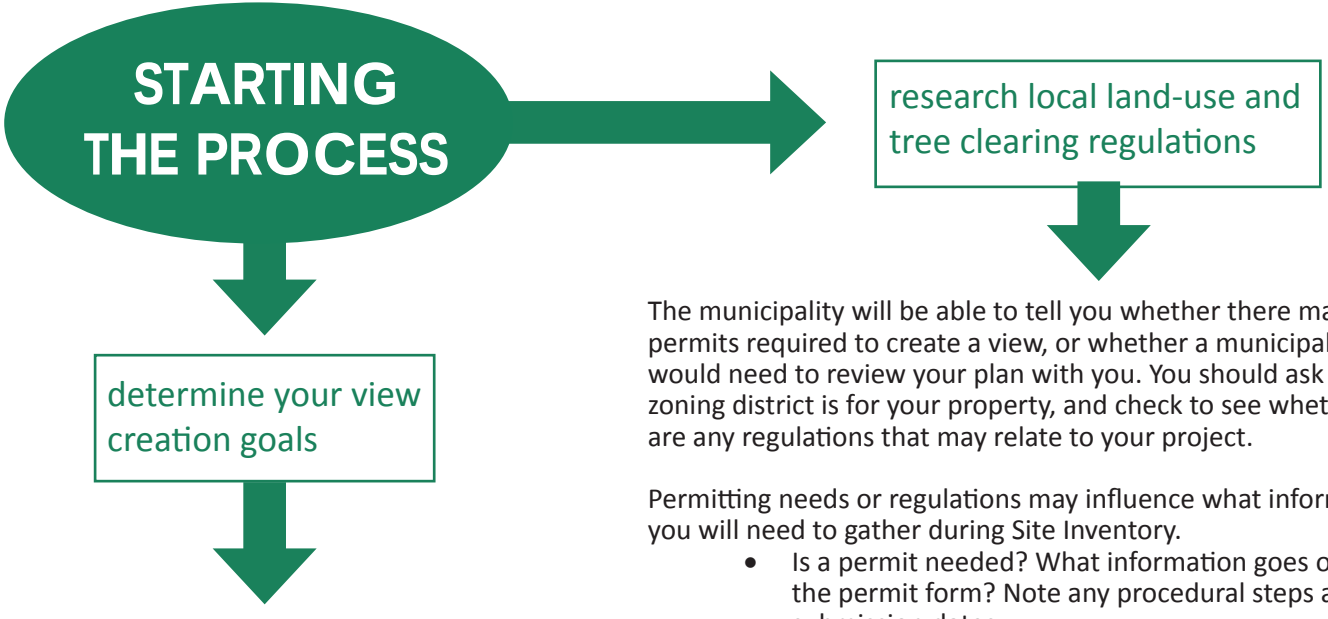
GOALS

Once you have addressed the existing site basics, start to consider the overall goal for your view.

QUESTIONS TO CONSIDER...

1. Will you be creating a brand new view?
2. Are you maintaining an existing one?
3. Are you restoring a historic view that has become overgrown?
4. If historic, do you have photographs of what it once looked like?

TIP If you have a general idea of where you might want to create the view, take some photographs of the site, including from where the viewer will be in relation to the focal point of the view. If there are deciduous trees obscuring the view, take photos during the winter months.



When you've gathered basic information and know what your general goal is for your view, reach out to your local municipality (e.g., Town Clerk's office or Zoning/Code official). Be prepared to discuss your project to determine next steps.

The municipality will be able to tell you whether there may be permits required to create a view, or whether a municipal board would need to review your plan with you. You should ask what the zoning district is for your property, and check to see whether there are any regulations that may relate to your project.

Permitting needs or regulations may influence what information you will need to gather during Site Inventory.

- Is a permit needed? What information goes onto the permit form? Note any procedural steps and submission dates.
- Is site plan review/approval needed? What documents or plans are necessary?
- Determine whether a State Environmental Quality Review (SEQR) will be needed for your project.
- There may also be NYS DEC approvals and/or permits that are needed.

CONSERVING NATURAL RESOURCES

IN VIEW CREATION OR MAINTENANCE

Creating scenic vistas can potentially impact environmental quality and ecological features. Establishing and maintaining scenic vistas within the Hudson River Valley in a manner that avoids negative impacts to habitats and natural areas requires selecting the alternative that causes the least damage to the biological and physical environment—the alternative that best protects, preserves, and enhances historical, cultural, and natural resources, while also meeting the goal of creating and enjoyable view of the river. Fortunately, many best management practices are visually appealing and can enhance the aesthetics of a view.

AVOIDING ENVIRONMENTAL IMPACTS

View creation can have a variety of short-term and long-term impacts on forest growth, soils, and water quality, as well as wildlife habitat. These impacts can vary depending on the type of view to be created, the techniques used, and the restoration and management approaches taken. The creation of a view can cause impacts in the short-term, including erosion and sedimentation, soil compaction, and root, branch, and stem damage, often resulting from the use of heavy equipment. Potential long-term impacts include the effect of forest clearing, grubbing, thinning, understory removal, and/or maintenance of soil and water resources and the local ecology. The following pages will outline best management practices to avoid or minimize such impacts.

Greenport Conservation Area in Hudson, NY

Emily Gardner

INVENTORY & ANALYSIS

Proper planning for a view creation project is critical to ensuring success. In addition to the location, direction, and type of view desired, there are other factors to consider. Being well-informed about the existing conditions of the site – the types of vegetation, soil and slope conditions, sun and shade conditions, sensitive species – as well as how it was used in the past and may be used in the future – necessary access, historic elements, adjacent scenic character – can all affect the viewshed and its maintenance. It is important to conduct a thorough inventory and analysis of the project site prior to beginning work on view creation.

GATHERING INFORMATION

Focus on gathering existing conditions information and historical, cultural, and environmental data; and performing a site analysis. Then look for a solution to achieve your project goal. Find out everything you need to know about your site.

- Conduct a Site Inventory
- Prepare a base map of your property
  - *For small-scale projects, an aerial image with property line, basic dimensions, and topography identified (flat, steep slopes, stream, ridge)*
  - *For large-scale projects, a site survey may be needed.*
- Complete site inventory checklist (example in Appendix)
- Research historical, cultural, and environmental data

The list that follows outlines the steps of the inventory and analysis process. If the project site requires a permit or is subject to review by a municipal board or other agency, there may be some inventory elements that are specifically required for their approval. Be sure to check with your local offices before starting the inventory process.

ONLINE AND LOCAL RESOURCES

Once you begin, there are online resources that can provide information regarding environmental, cultural, and historical resources, as well as help you map wetlands, natural communities, rare plants or animals, water features, parcel boundaries, and any geological features. After utilizing these tools, walking the potential project area will allow you to inventory the trees, locate potential invasive or sensitive species, and take a closer look at characteristics such as slopes, soils, water features, and sunlight. The Hudson Valley Natural Resource Mapper can be used to conduct a conservation analysis to highlight many of these potential concerns.

take note of the following....

- SITE USAGE
- EXISTING VIEWS & SITE HISTORY
- SLOPES & SOILS
- VEGETATION
- SUN & SHADE PATTERNS
- HABITAT CONSIDERATIONS
- MANAGING FOR WATER QUALITY

SITE USAGE

When planning for a view, it is important to consider how the property is used. This will help you in determining what type of view suits your site and the optimal location for your view.

Greenport Conservation Area in Hudson, NY

FYI: In some cases, the recreation of historic views (which may have resulted from clear-cutting a site) could actually pose environmental problems, but the location and viewshed may be a source of inspiration for a new view.

Questions to **ASK YOURSELF....**

1. Is it a public space, like a park, or is it a private residence?
2. Is there an existing place where people tend to gather - a frequented building, a garden, a picnic area?
3. Are there other activities on the property to keep in mind, such as mountain bike trails or a pavilion that is used for events?
4. How do people access and move through the place you are considering using as your viewpoint?
5. Is it adjacent to a building or parking lot?
6. Is it accessible by trail?
7. Are you hoping to make it accessible for users of all abilities?

EXISTING VIEWS & SITE HISTORY

When planning to create a view on a site, the first place to look for inspiration and guidance may be a view that already exists. A new view should complement the existing scenic quality of the location.

If there is a view on the site, is it effective? What can be learned from the way this view is framed? What could be tweaked to create a view in a more sensitive manner?

Additionally, consider the historic value of your site and any view that may have once existed, or the potential to view an historic feature from your property. Can you look to some of the historic values in creating your view? The ideals of the picturesque or the beautiful? In some cases, recreating historic views may not be desirable or feasible, but the location and viewshed may be a source of inspiration for a new view.

Blithewood Gardens at Bard College

BEST MANAGEMENT PRACTICES: existing views

1. Consider whether there are any undesirable landscape features in your potential viewshed.
2. Assess if there are any utilities or buildings that should be screened through view orientation or additional vegetation.
3. Consider how the potential viewpoint may appear to viewers looking into the site from across the river or neighboring sites.
4. Assess whether creating a view would expose undesirable elements on your site or other neighboring sites.
5. Assess whether potential exposed undesirable elements could be screened.

SLOPES & SOILS

Steep slopes are typically sensitive to tree removal activities and the use of heavy equiptment. Soils on steep slopes are generally shallow and tend to be fragile. Slopes may be rocky or contain soils that are at risk of erosion, slumping, creeping, or even collapse if disturbed. In the Hudson Valley, these include clay and sandy soils commonly found along the river shoreline, and rocky soils in hilly places such as the Hudson Highlands.

As slope increases, runoff and the risk of subsequent soil erosion increase. Forest vegetation, especially tree roots, helps stabilize slopes by reinforcing the strength of soil and its resistance to shear. If a hill's slope does not possess enough strength, then the likelihood of soil stability failures, such as soil creep or landslides, is much greater. Many property owners who have clear-cut a view have unfortunately had to deal with erosion and slumping.

In general, tree stumps should not be removed during view creation, but this is especially true when removing trees on slopes with erosion potential or along riparian corridors. Stumps should be flush cut to maintain the root structure and can be camouflaged in order to provide a more natural-looking appearance post vista clearing. To help stabilize at-risk slopes, techniques such as the placement of log checks can be used. Log checks are created when a felled tree is placed along the contour in a shallow trench. This helps to intercept any water that may run down the slope, which helps minimize erosion. In areas adjacent to streams and wetlands, planting native wetland species, such as pussy willow, should be considered.

Shoreline erosion occurring at the Kingston Point Trolley Line

Soil Slump and Creep

The outlined areas show regions of soil slump and creep. **Slump** often occurs when a slope is undercut where large surface materials move along a curved surface. **Creep** can be defined as the steady downward movement of soil or rock, typically caused by excess precipitation.

When exploring a potential location for view creation, it is important to identify the soil type present. One online tool available for this is the USDA Natural Resources Conservation Service Web Soil Survey, which can provide information on the soil types within an identified area of interest. The characteristics may not have been analyzed at a proper scale for a small site, but can provide a general idea of the soil types, composition, general slope, and features such as the risk for ponding of water, or the presence of shallow or exposed bedrock. Identifying soils on a site can help managers more effectively plan to reduce on-site erosion and to select appropriate vegetation for post-view creation restoration.

SOIL TYPES

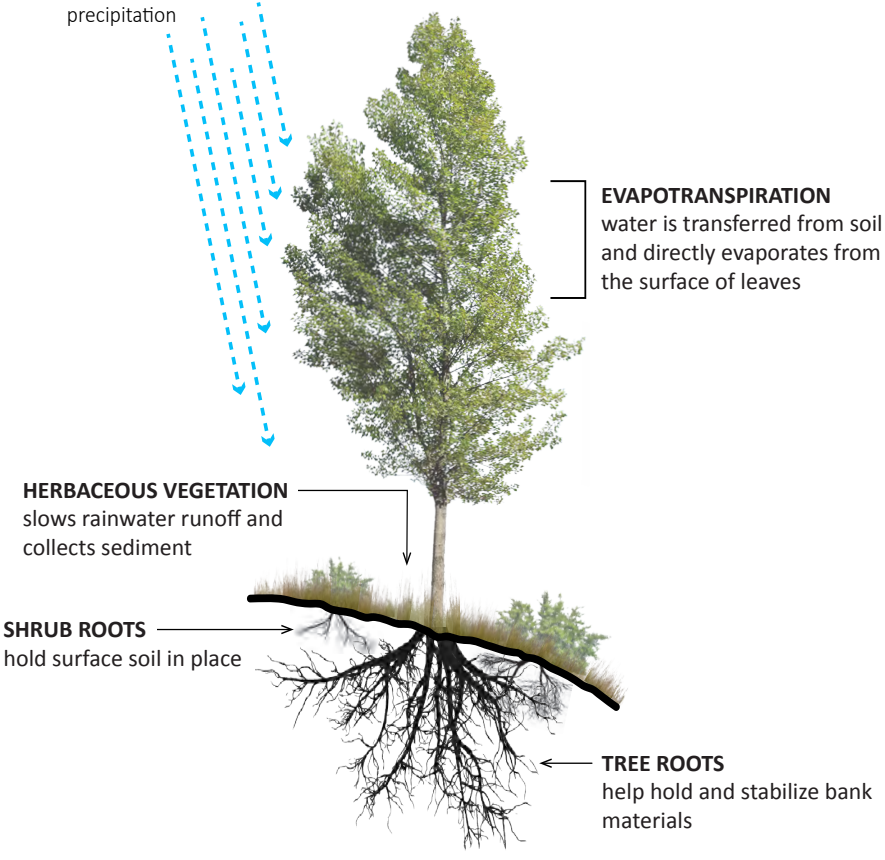
Soils can be categorized into different types, each with distinct characteristics that come with benefits and limitations. Certain soil types - such as those with a high clay content - tend to be more prone to erosion. The risk increases in areas with steep slopes. Flat areas adjacent to the Hudson River without stabilizing vegetation are also subject to the effects of climate change (sea-level rise, and high-intensity storms). If view creation is to occur, be sure to properly analyze the slope stability of your site, and consider methods such as revegetation post-view creation.

EROSION RISK AREAS

In locations with soils at risk of erosion, it is important to preserve as much vegetation as possible. Smaller plants, such as shrubs and grasses, can help to stabilize the upper levels of the soil, while roots from larger vegetation, such as trees, help to stabilize the deeper levels. It is important to identify slope and soil conditions early, and to know whether clearing could create or worsen erosion problems.

SOIL ERODIBILITY

VEGETATION AS SLOPE STABILIZER



BEST MANAGEMENT PRACTICES: slopes & soils

1. Plan to leave as many tree and shrub roots in place after view creation for slope stabilization.
2. Plan to leave as much low growing woody and herbaceous vegetation as possible.
3. If leaving vegetation in sensitive areas is not possible, consider planting low-growing trees and shrubs (be sure to protect from deer browse).
4. Consider using erosion control blankets or other mediums in severely sensitive areas.
5. Analyze whether or not areas with unstable soils would pose a potential safety hazard if vegetation was removed.

VEGETATION

Inventorying the existing vegetation is specifically important for two particular types of plants - native trees and shrubs, and non-native invasive species.

TREE INVENTORY

A tree inventory should be conducted, identifying the location, species, trunk diameter, and condition of all trees within and adjacent to the potential clearing area. This will be important for identifying trees that should be removed, that should remain, and those that may require pruning and other forms of maintenance. It is also important to note valuable wildlife trees (e.g. those with holes, standing dead trees, shagbark hickories, etc.)

Tree tagging and inventory taking place in preparation for view creation

INVASIVE SPECIES

It is critical to identify any current invasive species problems on site. Tree removal could encourage the spread of invasive species if proper best mangement practices are not determined and utilized correctly. Certain invasive species can exacerbate erosion. Exotic knotweeds destabilize stream banks, while some invasive insects can decimate local plant communities that hold together soil.

Use species-specific approaches to manage these threats within a site. Information and assistance regarding the management of these species can be found through the NYS Partnerships for Regional Invasive Species Management (PRISMs). More information about these organizations can be found in the appendices of this document.

There is no ‘one size fits all’ approach to invasive species management, but continually monitoring and mangaging these species before, during, and after the view creation process is always necessary.

Multiflora Rose, common Hudson Valley invasive species

Phragmites Reed Grass, common Hudson Valley invasive species

BEST MANAGEMENT PRACTICES: vegetation

1. All invasive species on the site should be acounted for and documented based on location and extent.

2. Leave as much native vegetation in place when planning for the view to deter future invasive species from entering the site.

3. Any invasive species on the site should be continually monitored and managed before, during, and after the view creation process.

4. Consult your regional PRISM or Cornell Cooperative Extension for local information on target invasive species and the best ways to manage them.

SUN & SHADE PATTERNS

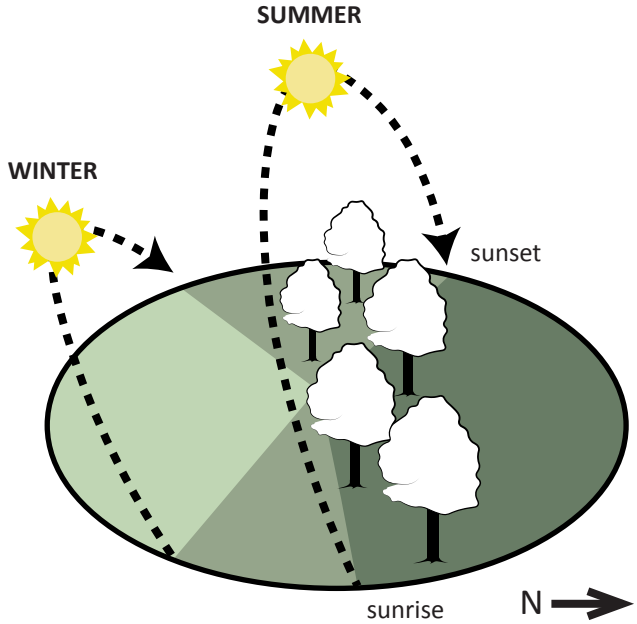
The amount of sun and shade can affect what plant species may thrive or be stressed in your proposed view location. For example, flowering dogwood and redbud grow well on woodland edges that receive some sun, but it would be difficult to create a grassland or meadow habitat in the shade.

SUN & INVASIVE SPECIES

Tree removal creates more pockets of sunlight, which increases the threat of invasive species entering the site; this should be kept in mind during view creation and revegetation practices. In areas where sun exposure will increase due to tree removal, as much low-growing, woody vegetation as possible should be left in place in order to deter potential invasive species threats and establish new vegetation.

SUN PATTERNS

Consider how much sun the location that you are considering for tree removal or trimming currently receives. The predominant direction of sun will be from the south, with gentler morning sun coming from the east and hotter afternoon sun from the west. A view that opens an east-west corridor through a forested area will likely remain shaded by the trees along the southern edge. It is also necessary to keep in mind that deciduous trees will allow sun through in the winter, while providing summer shade.



FULL-SUN
never shaded

PARTIAL SUN
recieves morning or afternoon sun

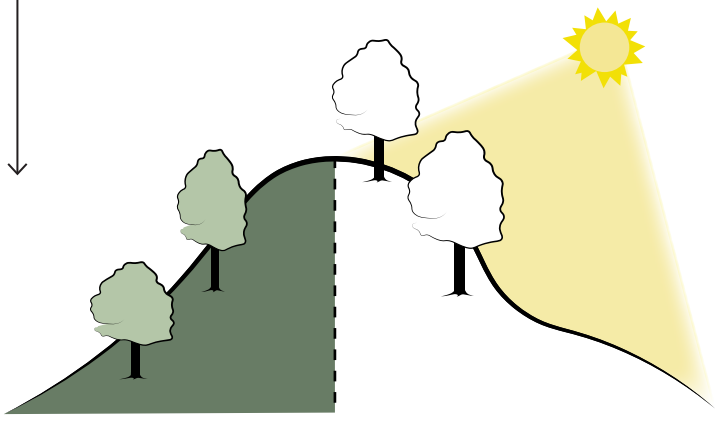
MOSTLY SHADED
is shaded for most of the day

NORTH-FACING SLOPE

these slopes are shaded and generally have cooler temperatures

SOUTH-FACING SLOPE

these slopes usually have full sun exposure and warmer temperatures



BEST MANAGEMENT PRACTICES: sun & shade patterns

1. In areas where sun exposure will increase due to tree removal, as much low-growing, woody vegetation as possible should be left in place in order to deter potential invasive species threats.

2. Alternatively, planting low growing trees or shrubs and protecting them from deer browse can suppress invasive plants.

HABITAT CONSIDERATIONS

The Hudson River Valley is home to unique habitats and a vast variety of native plant and wildlife species. In addition to commonly known species like cottontail rabbits, whitetailed deer, blue jays, and chipmunks, there are also rare species that call the Hudson Valley home, with some receiving legal protection.

Online tools can help to identify whether any species of concern may be present in your project area. The New York Natural Heritage Program surveys and monitors rare animals, rare plants, and significant ecological communities throughout the state. The Hudson Valley Natural Resource Mapper is an online tool for finding out about the animals, plants, and habitats in your neighborhood or area of interest. Links to these resources are provided in the Appendix.

The presence of rare species may require a permit from NYS DEC and/or have an impact on the project schedule (so that work occurs outside of breeding and roosting seasons). Additionally, there may be considerations made for critical habitat areas or certain species on which the animals may depend (e.g. shagbark hickory trees, which provide habitat for the Indiana bat). On the following pages, we describe best management practices for conservation of wildlife when creating or managing a vista.

Threatened Species

John Badura

Megan Johnson

U.S. Fish and Wildlife Service

Bald Eagles are an increasingly common sight along the shore of the Hudson River. While these raptors are still currently listed as a threated species by New York State, their populations appear to be recovering throughout the estuary watershed. To maintain this positive trend, land managers must be careful not to disturb nesting eagles, as this can result in reproductive failure and nest abandonment. Because they often return to the same nest every year, usually located in a tall pine tree near the river's edge, it is important to document the presence or absence of eagle nests within a proposed view clearing area and to avoid disturbance to the area around active nests. A DEC permit may be required for activities occurring adjacent to a known nesting site, so contact your regional DEC office for more information.

Many **Bat Species** are either rare or declining in our region due to the newly introduced disease, White-nose syndrome. Species including the **Indiana bat** and **northern long-eared bat** are two declining species that enjoy some level of regulatory protection by both the state and federal government; however, there are many more that are unprotected, but are still declining. These imperiled bat species usually hibernate in caves during the winter, but spend the summers roosting in large trees, especially species such as shagbark hickory. When removing trees for a vista, regardless of whether or not rare bats have been documented in the area, abstain from cutting during the season where they are occupying trees, generally between April and October in the Hudson Valley. Maintaining large live trees and dead trees with cavities provides abundant roosting habitat, while the nearby Hudson River supports their insect prey. A DEC permit may be required for activities occurring near to a known habitat site, so contact your regional DEC office for more information.

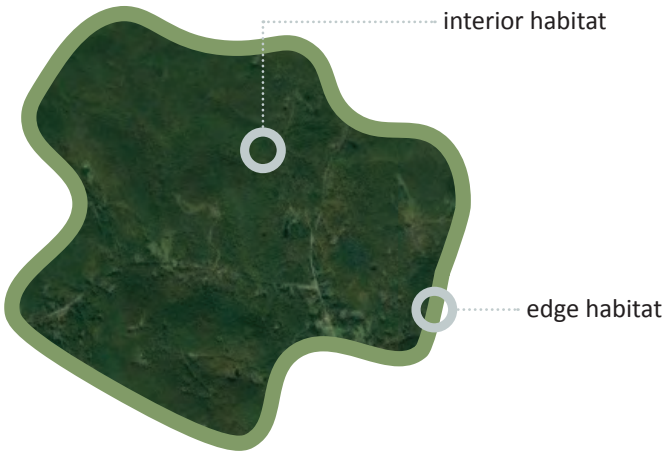
Rare Turtles, including box and wood turtles, might be found in wooded areas along streams or in open fields and young forests. Box turtles can live as long as forty years, but are more threated by human activity than old age. Many turtles are killed during the mowing of roadsides and field habitats, which often results in long-term effects on populations, but land managers can mitigate this by mowing during the early spring or late fall and by excluding all motorized vehicles from potential habitat between June and October. A DEC permit may be required for activities occurring near to a known habitat site, so contact your regional DEC office for more information.

HABITAT CONTEXT

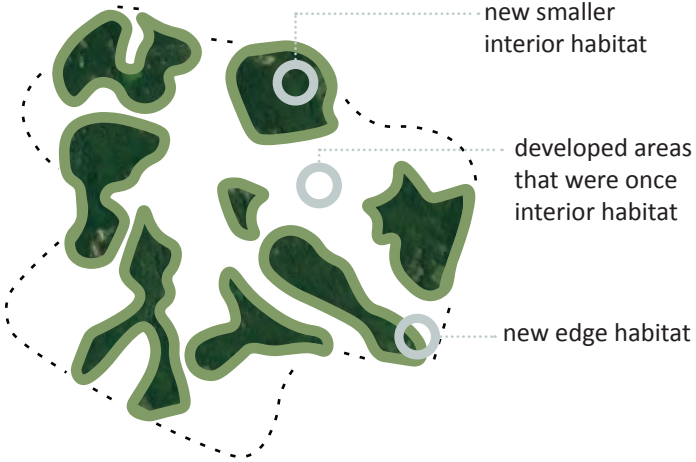
When planning for view creation, the overall habitat context of the site and where it fits into a larger system should be understood. The created view should fit into that context rather than forming an entirely new landscape. If a landscape is largely forested, a new cleared area for a view should mimic that condition, which can be done through leaving shrubs and short trees where possible to to limit the negative effects caused by forest fragmentation. If there are trees blocking river views within a meadow landscape, it could be beneficial to remove those trees to increase the size of the meadow. Trees can fragment meadows, and, in some cases, their removal could greatly improve the habitat.

Many of the areas adjacent to the Hudson River are forested; however, there are some places, especially between Albany and Catskill, where some large agricultural fields provide habitat for rare and declining grassland breeding birds. In either case, it is important to maintain the character of the landscape in a constructed view. To help in determining the habitat context of your site, referencing the Hudson Valley Natural Resource Mapper can help in understanding where important forests and other habitats occur.

CONTIGUOUS FOREST



FRAGMENTED FOREST



This area is **heavily fragmented**; the areas that were once contiguous forest are broken into small bits of developed land.

Development and agriculture are beginning to **partially fragment** this area.

Area of **minimally fragmented** forest in the Hudson River Valley region.

MITIGATING IMPACTS OF THE EDGE

When creating a view through a mature forest, edge habitat is created and core habitat is reduced. A recent analysis estimates that 65% of the Hudson River Estuary watershed is forested, but only about half of that area is interior forest habitat. In general, species that require large, undisturbed interior forests with limited fragmentation have been declining, while many species that require edge habitat are flourishing. **To avoid this, view clearings should be situated close to or within existing edge habitat to prevent further fragmentation of core natural areas.**

Forest edge with herbaceous opening (meadow)

EDGE THREATS

There are many examples of species found on forested edges negatively affecting their neighbors in the adjacent interior forest. The brown-headed cowbird, an edge-dependent species, will lay its eggs in the nests of other birds, whose young will go hungry at the expense of feeding the larger cowbird chick. As the forested edge area increases, so too does the cowbird population, at the expense of other rare birds.

Adult male cowbird

HUDSON RIVER VALLEY HABITATS

The Hudson River Valley region contains 13.5% of the land area and 85% of the bird, mammal, reptile, and amphibian species found in all of New York State. It is home to diverse habitat types, including caves, cliffs, grasslands, pine barrens, forests, and mountain ranges in upland areas, as well as streams and wetlands, including globally rare freshwater tidal wetlands. Some habitat areas may be rare for the Hudson Valley Region, or may contain rare plant or animal species.

Cliffs can provide valuable habitat, but can also be at risk for erosion and soil damage. Significant vegetation removal can lead to the introduction of weedy invasives.

BEST MANAGEMENT PRACTICES: cliffs

1. Avoid cutting entire trees. Instead selectively cut branches within at least 50’ of the cliff edge

2. Avoid driving heavy equipment within 50’ of the cliff edge.

3. Minimize trails along unstable cliffs. Use fencing to direct people and pets to designated views and to deter the creation of informal trails.

View of the Palisades, a 20-mile stretch of steep cliffs along the New Jersey shore of the Hudson River

Beaches, mudflats, coves, salt marshes, tidal wetlands, and tidal creeks support waterfowl, wading birds, fishes, turtles, dragonflies, mollusks, and raptors. Within the Hudson Valley, dredge spoil disposal, bulkheads, and construction fill for urban and industrial development have damaged or eliminated large areas of subtidal shallows habitat. Impoundments, dams, and floodplain filling currently block migration routes for many economically important species that require temporarily flooded riparian wetlands and abandoned channel meanders in order to complete their lifecycle. Coastal habitats are also impacted by surrounding land uses, polluted runoff, recreational activity, and climate change, which increases storm intensity and sea-level rise.

Globally rare freshwater tidal marsh at Greenport Conservation Area

BEST MANAGEMENT PRACTICES: coastal areas

1. Leave at least fifty feet of trees or shrubs at the water's edge.

2. In cases where sea-level rise is expected to create new wetlands inland of the existing shoreline, extend that 50' buffer to protect the adjacent area of future wetlands. See Scenic Hudson's data on marsh migration to determine how tidal wetlands on your site are expected to be impacted.

Forests are the predominant land cover type in the northeastern United States, with about 65% of the Hudson River estuary watershed classified as forest. These wooded areas provide important summer breeding habitat for migratory songbirds, and year-round habitat for animals, such as bobcats, black bear, barred owl, wood frogs, and Indiana bat. Unfragmented, large forests are important for a number of species that are sensitive to disturbance and dependent on areas free of extensive human disturbance.

When a narrow band of trees is removed to create a view within a forest, managers can take steps to limit the impacts of this minor fragmentation. However, more extensive tree removal can significantly separate forest habitats and promote the spread of invasive plants. To safeguard species requiring large forests, any vegetation removal should occur close to or within existing edge habitat to minimize the impacts of fragmentation to previously undisturbed forests.

View of Bear Mountain State Park

BEST MANAGEMENT PRACTICES: forests

1. Create a plan for tree removal, invasive species management, and view maintenance.

2. Concentrate disturbance associated with view creation along the edges of forests to preserve core interior forest for the species that depend on it.

3. The overall width of a view corridor should be less than 150’ in order to minimize habitat disruption and allow wildlife to continue to move safely between the edges, and to avoid adverse impacts to forest-dwelling birds.

4. Use techniques that can reduce the impact of forest edges, most notably, feathering, which is discussed further in the Step 3 section of this book.

5. Leave standing dead trees and limbs in place, as much as possible.

6. Leave existing and newly cut trees on the ground to maintain habitat for forest species.

7. Do not move dead or diseased trees off of the site to avoid transporting tree pests or diseases.

8. Maintain live trees with large open cavities; these trees provide important natural shelter for many species of wildlife.

Meadows & Grasslands support waterfowl, wading birds, fishes, turtles, dragonflies, and mollusks, and may be found in open upland areas in the Hudson River Valley, in the form of native communities or successional fields and agricultural lands. Rocky grasslands may also occur at hill summits or along exposed slopes, often occurring following a forest fire. Grasslands and meadows, if not regularly maintained, tend to revert to forest over time. They may contain vegetation such as grasses, shrubs, and saplings that provide habitat for rare birds, plants, butterflies, and other insects.

Large grasslands are vital for grassland bird breeding, nesting, foraging, rearing young, and roosting. Examples of rare grassland birds include bobolink, meadowlarks, harrier hawks and short-eared owls. Meadows and grasslands can also provide habitat for box turtles and spotted turtles, two species of special concern in New York State.

If properly maintained, meadows and grasslands can add beauty, color, and variety to a vista, as well as important habitat. Regular mowing or grazing of these areas is necessary to keep the habitat from becoming shrubland and eventually forest. If there are trees blocking river views within a large meadow, it could be beneficial to remove those trees to increase the size of the meadow. Trees can fragment meadows, and, in some cases, their removal could greatly improve the habitat. Leaving some specimen trees within a meadow, such as a single old open-grown white oak, won't greatly detract from the habitat value and can provide visual interest. Also maintain at a minimum of 100' of forest growth directly adjacent to the Hudson River to limit erosion and provide nesting and roosting habitat for bald eagles, ospreys, and rare bats.

Meadow in the Hudson River Valley

BEST MANAGEMENT PRACTICES:
meadows & grasslands

1. Develop a management plan for maintaining the meadow. Generally, mow no more than once a year, after August 20th. Depending on the goals of your habitat management, this might have to be altered to address species-specific habitat requirements. Grazing or burning will require different approaches.

2. Remove trees and hedgerows selectively.

3. Set the mower height to 8”, to minimize the impact to wildlife.

4. Divide open area into two or more sections and mow in rotation, leaving uncut areas as refuge for meadow wildlife.

5. Manage invasive plants in consultation with your local PRISM, using species-specific techniques.

6. Maintain a forested buffer of 100’ or greater along the shoreline of the Hudson River.

WATER QUALITY CONSIDERATIONS

VIEW CREATION & WATER QUALITY

The creation of a view within the Hudson River Valley will undoubtedly occur close to a primary water feature – streams and rivers. The Hudson is fed by innumerable tributaries –creeks, streams, brooks, and other smaller water flows. In addition, the valley contains other water sources, such as ponds, lakes, and wetlands.

Tributaries, riparian areas, and floodplain forests are important habitat for many species, including salamanders, river otters, beaver, Louisiana waterthrush, and wood turtles. Aquatic animals are highly dependent on riparian areas for shade, food, edge of habitat structure, and soil stabilization.

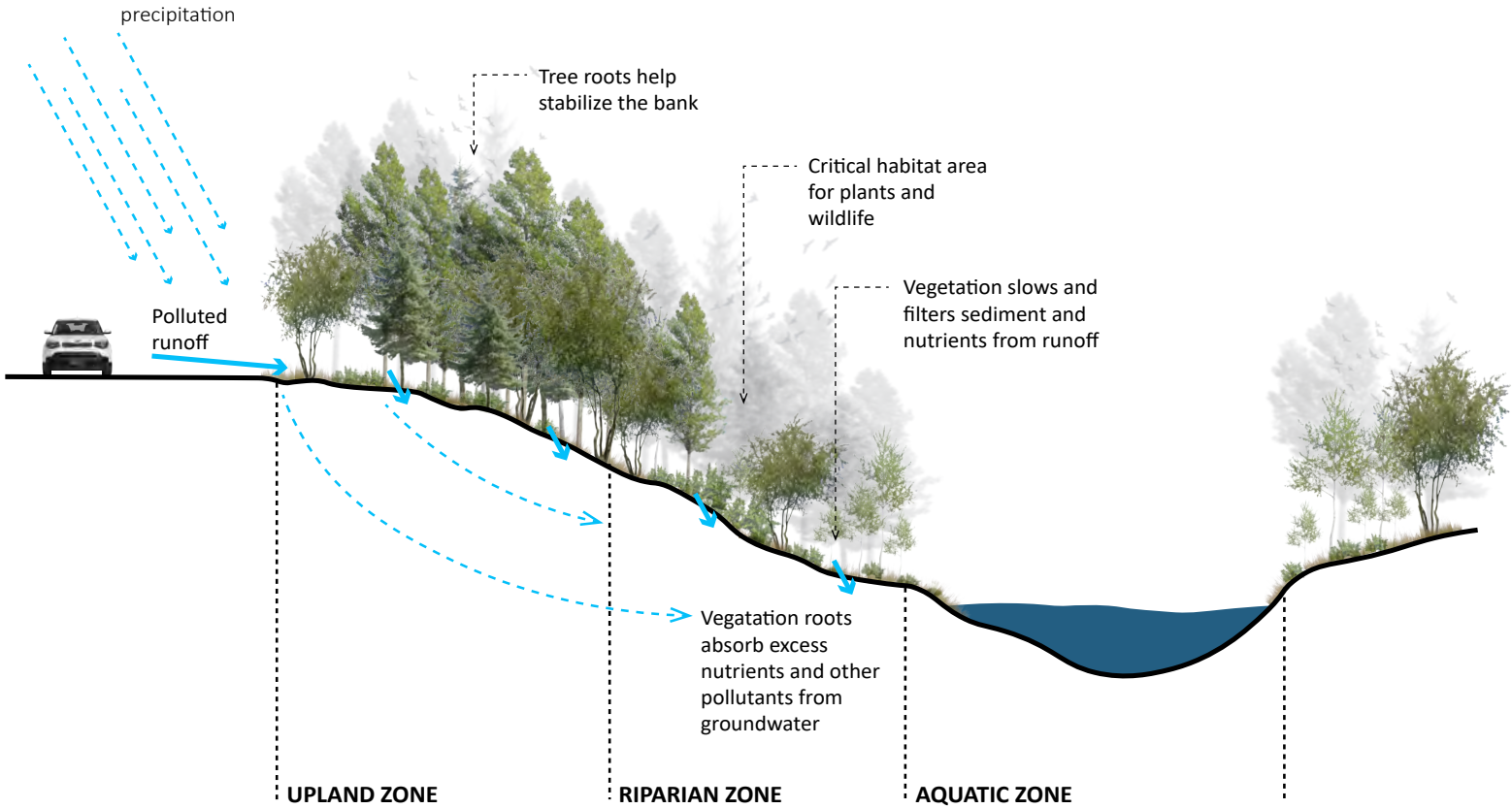
Some of these water features may be prone to flooding. In some cases, they may lie within the designated floodplain, which generally covers the areas at a 1% and 0.2% annual risk of flooding (per FEMA designations). Vegetation can provide stability along the banks and make a water feature more resilient, helping it to withstand flooding and high-velocity water flow. Vegetation can also help to filter sediments and pollutants that are found in runoff as it travels along the ground surface toward the waterbodies. Often, to help protect water quality and bank stability, buffers of greater than 100' along a waterbody are suggested.

VEGETATED BUFFER ZONES

All natural areas have edges, or *buffer zones,* that prevent outside disturbance. As this handbook is dealing primarily with Hudson River views, your site may very well be such a zone. The transition from forest to river habitat is the *vegetated buffer zone,* characterized by plant communities that prefer or tolerate high water content. That tolerance generally increases with proximity to the water, resulting in species that provide shade and habitat at the river's edge. Upland riparian plantings keep the soil intact (erosion control); intercept runoff; filter out harmful materials before they reach the water; and infiltrate that runoff into the ground to reduce flooding.

Example of a treed buffer along a river

WATER QUALITY BENEFITS OF BUFFER ZONES



WETLANDS

Wetlands provide many valuable functions, including serving as habitat, filtering pollutants, recharging groundwater, protecting surface and groundwater, and helping to mitigate the impacts of flooding and tidal erosion. They also support many forms of recreation. Wetlands found in the Hudson Valley include freshwater tidal swamps, brackish tidal marshes, fens, bogs, and forested wetlands.

Some wetlands are subject to regulation, including review and permitting of any proposed actions. NYS DEC regulates wetlands over 12.4 acres in size or those of "unusual local importance." In addition, NYS DEC regulates a 100' buffer zone surrounding them. The US Army Corps of Engineers regulates some wetlands, but current regulations are in flux and follow-up on a case-by-case basis with the Army Corps is essential. Any development within these sensitive areas must be coordinated with these agencies and comply with applicable permitting and regulations. New York State also regulates some streams, and some municipal governments have their own regulations regarding streams and wetlands, so research must be done based on the municipality the project is in.

Tivoli Bays are one of the four tidal wetlands protected by the Hudson River Estuarine Research Reserve

Wood Turtle, a wetland- and stream- dependent species threatened by habitat loss due to agriculture and development

BEST MANAGEMENT PRACTICES: water quality

1. Vegetated buffers (trees or shrubs) of greater than 100’ in width along waterways and wetlands are suggested.

2. Check for local and state guidelines. NYS DEC regulates some streams, and some municipal governments have their own regulations regarding streams. In general tree cutting along streams is not regulated, but it is also not recommended. Some wetlands are subject to regulation, including review and permitting of any proposed actions.

3. Certain types of wetlands may be managed through mowing and grazing.

View of 'The Willows' across the meadows at NYSDEC's Brandow Point Unique Area
Emily Gardner

STEP 2

PLANNING YOUR VIEW

1. BRINGING THE VISION TO LIFE
2. DETERMINING VIEW TYPES
3. DETERMINING VIEWER POSITIONS
4. VIEW COMPOSITION

BRINGING THE VISION TO LIFE

Bringing a vision to life requires careful planning. While everyone has his/her own aesthetic preferences and a unique desired outcome, common criteria that may influence how a viewer "rates" a view include:

VIVIDNESS

This is the degree of how memorable a site is, or its "wow" factor. This can stem from…

- Expansiveness— The physical extent to which a landscape "opens up" and "welcomes" the viewer.
- Framing— Apparent borders (natural or fabricated) that specify your view's "beginning" and "end."
- Focal point— The viewer's eye is initially drawn to this point, radiating outward to the rest of the framed area. It is your vista's "center," helping to create a sense of depth.

UNIQUENESS

Certain vistas frame a focal point that is only visible from one location in the landscape. These features may have some kind of historic significance or interpretive potential. This rarity helps make your vista a "place," and is often a function of

- Geography— Maybe the river bends at an unusual angle from your chosen view?
- Iconic view— One which makes your vista representative of some broader concept (e.g., does that river bend include a view of a well-known mountain?).

ACCESS

Consider existing and potential access through the site and existing infrastructure that either improves or reduces accessibility. This can help you determine your vista's frame. Can users of all abilities access the viewpoint, especially if the view will be publicly accessible?

A careful inventory of access before you intervene will reveal whether the vista is initially…

- Static—Viewed while in a stationary position, such as standing or sitting in front of a viewpoint.
- Dynamic—Viewed while in a moving vehicle, either in front of or perpendicular to the lane of travel.

INTACTNESS

This refers to the level of incompatible and intrusive change from an idealized landscape. Yosemite Park, for instance, is an idealized landscape and considered a vista free of buildings and structures in the distant view. *Intactness* refers to the condition of the area being viewed, as opposed to the condition of the viewpoint.

OPTIMIZING VIEWS

A view can be oriented to optimize the viewshed. For example, there may be an historic view that once looked out over a long distance to the shoreline and the rolling farmland on the opposite shore. However, over decades, this view may have become overgrown. In assessing the potential to restore it, a property owner may realize that a power transmission corridor is along the hillside on the opposite shore, and may choose to shift the viewshed slightly in order to avoid it, or to keep a few mature trees to screen it. The removal of vegetation has the potential to expose less desirable elements that may be in the viewshed, or to adversely affect the scenic quality of views from offsite vantage points. Views looking into the view creation site from across the river, shoreline, and other locations, especially from public viewpoints, should all be considered when preparing for view creation.

SCREENING

Similarly, the removal of vegetation may create a beautiful view from one location, but could expose a feature such as a parking lot to those who may be looking back to the viewpoint from the river or an adjacent property. In this case, low plantings that do not block the view, but screen the parked vehicles, could allow for enhancement of scenic quality looking out from the site, as well as back into it.

An early 19th century view at Olana State Historic Site

The current restored view at Olana State Historic Site
Saratoga Associates

DETERMINING VIEW TYPES

PANORAMIC VIEWS

A panoramic view can be described as an unobstructed view of a landscape in most, or even all, directions. This is the widest view form, offering the most visual accessibility. As seen in this photograph, a panorama can be enhanced by having a variety of habitat types—forest and meadow, for example. In the context of this handbook, this type of view is only practical in existing grasslands or meadows.

Panoramic view from Storm King

VISTA VIEW

A vista view is a distant view through an avenue or opening. The visual limitations here are greater than those of panoramic views, but the view is still relatively wide.

Retaining trees and shrubs, as shown in this photo, can be compatible with a vista view and is advisable for conservation of soils and wildlife.

Vista view of Catskills from Staatsburg

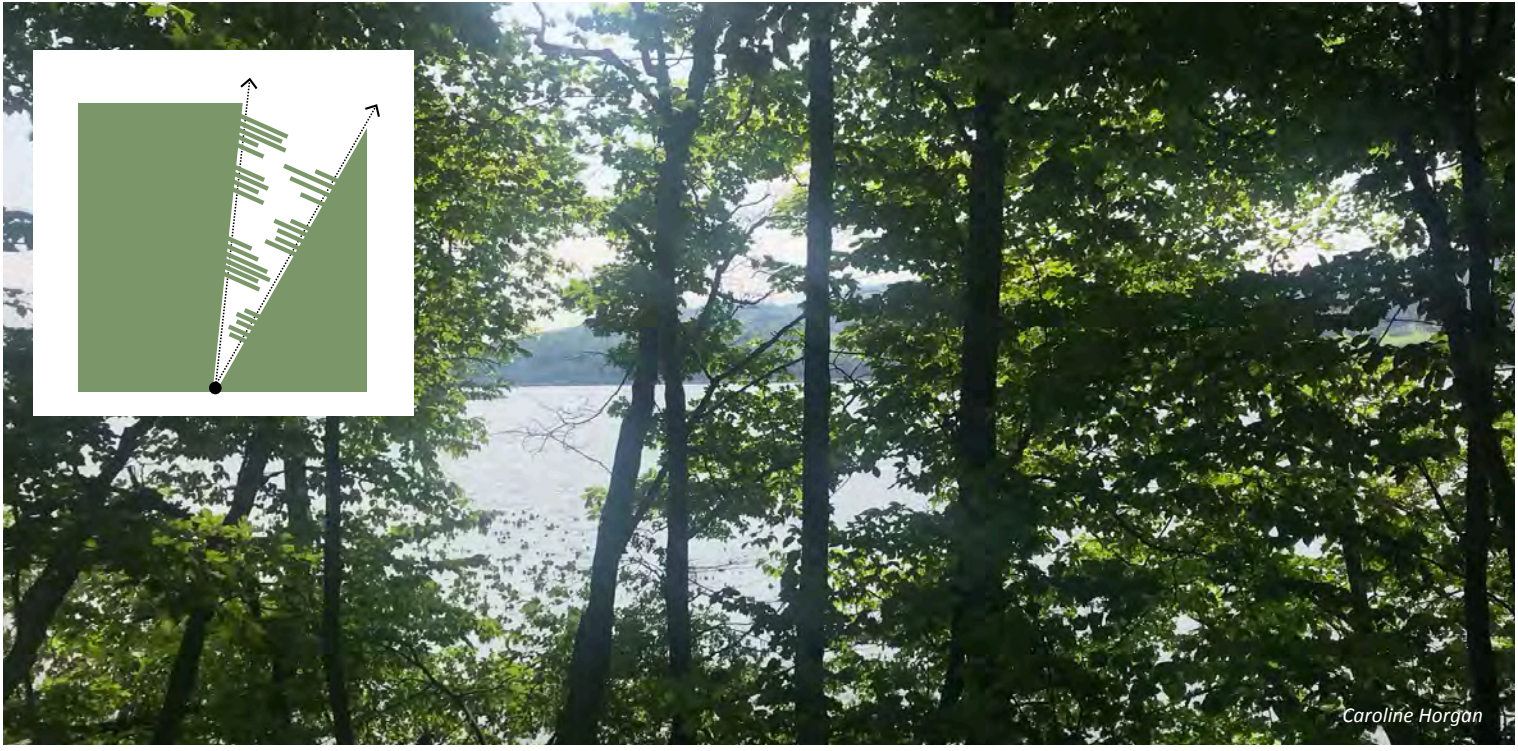
KEYHOLE VIEW

A keyhole view is the most narrow view type, offering small glimpses of distant landscape features rather than a vast sweeping view. These are often necessary if extensive tree removal is not suited to the site.

Keyhole view from Poet's Walk Park

FILTERED VIEW

Filtered views can be of any width, but are partially obstructed by trees within the view-cone which offer multiple glimpses of the distant landscape within a single viewshed. In leaf-off winter conditions, these views are more expansive and less filtered.



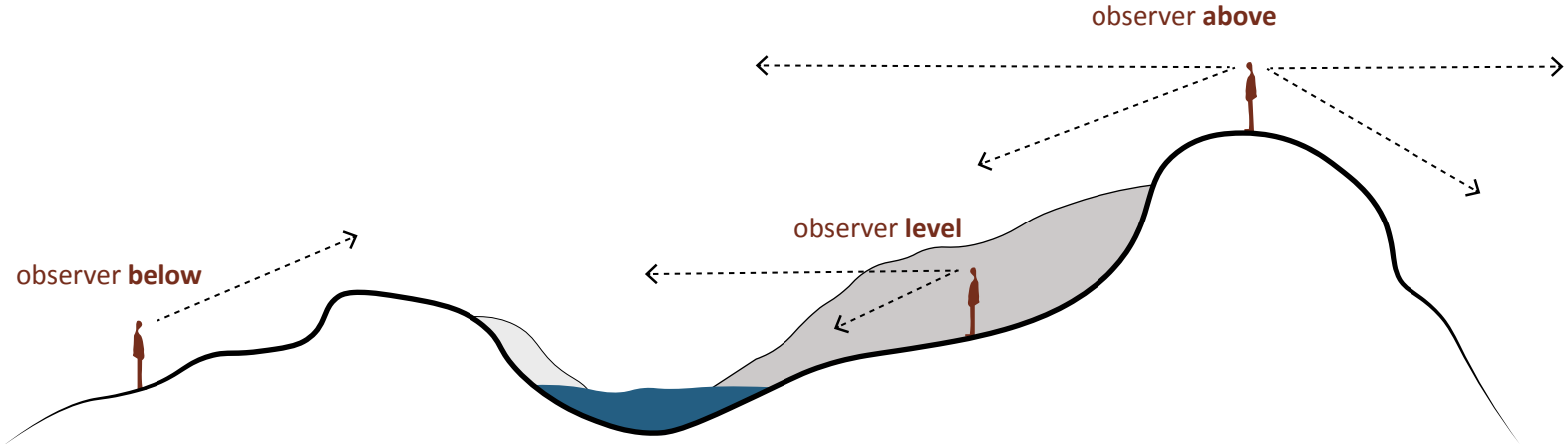
Filtered view from Brandow Point Unique Area

DETERMINING VIEWER POSITIONS

OBSERVER POSITIONS

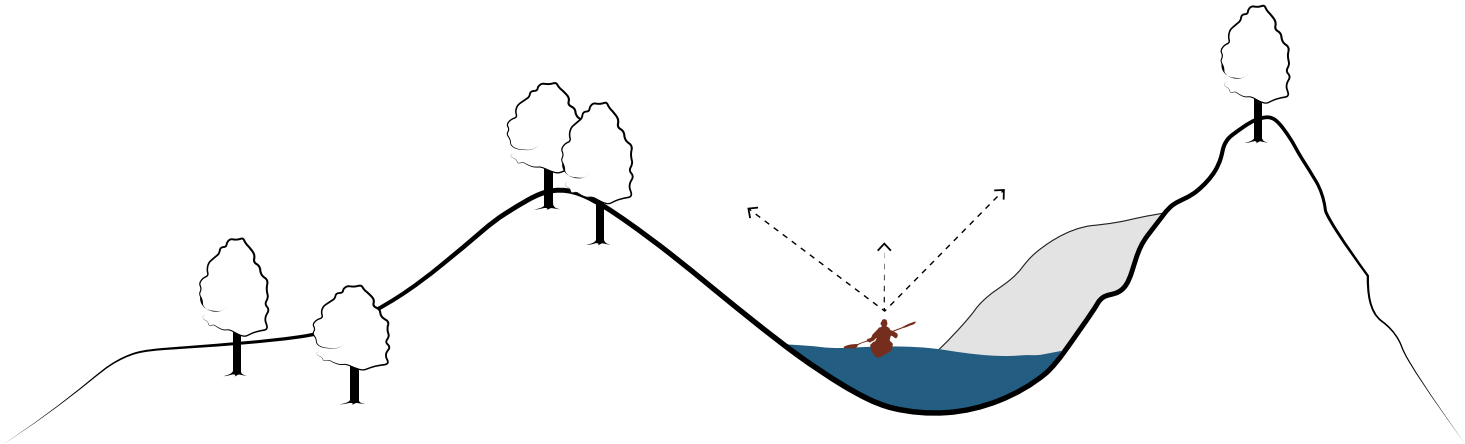
Observer Position refers to the stationing of an "observer" in relation to surrounding visible landscape features, as well as the observer's location relative to elevation. Determining one's relationship to the surrounding views is a very important step in the view creation process. It will likely inform the type of view one can create that is best suited to the site in terms of amount of vegetation removal and size of the viewshed.

There are three primary positions observers may find themselves in: Observer Below, Observer Level, and Observer Above. These positions are illustrated by the diagram below and further discussed on the following pages.



OBSERVER BELOW

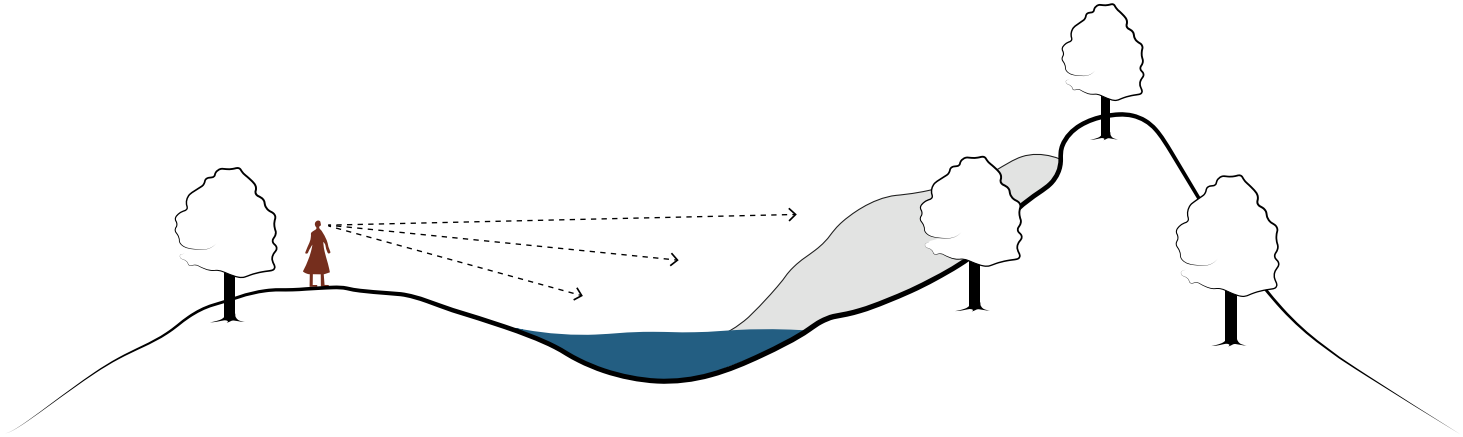
Here, the observer is positioned below the surrounding landscape features. This will likely lead to more considerations when choosing your view type. Vegetation removal will be more site specific in this instance, as landscape features obstructing river views may vary greatly. Although it is important to be aware of this observer position, the likelihood of it occuring on a property where a view is desired in the Hudson River Valley is unlikely. However, if one is boating on the River, his/her position would be from the “below” perspective, so view creation should also take into consideration views from the river into your site.



OBSERVER LEVEL

In this position, the observer maintains a line of sight that is level with the surrounding visible landscape features. Due to this relatively level vertical plane, view creation may require some taller and more obstructive vegetation to be removed in order to gain visual access to the river; however a clear-cut is rarely necessary. If removing larger amounts of vegetation is not advised for your site after following the steps listed in Section 2, then creating less obtrusive view types, like keyhole or vista views, may be better in this case. If removing more vegetation is allowable, be sure to leave as much low-growing, stabilizing vegetation as possible.

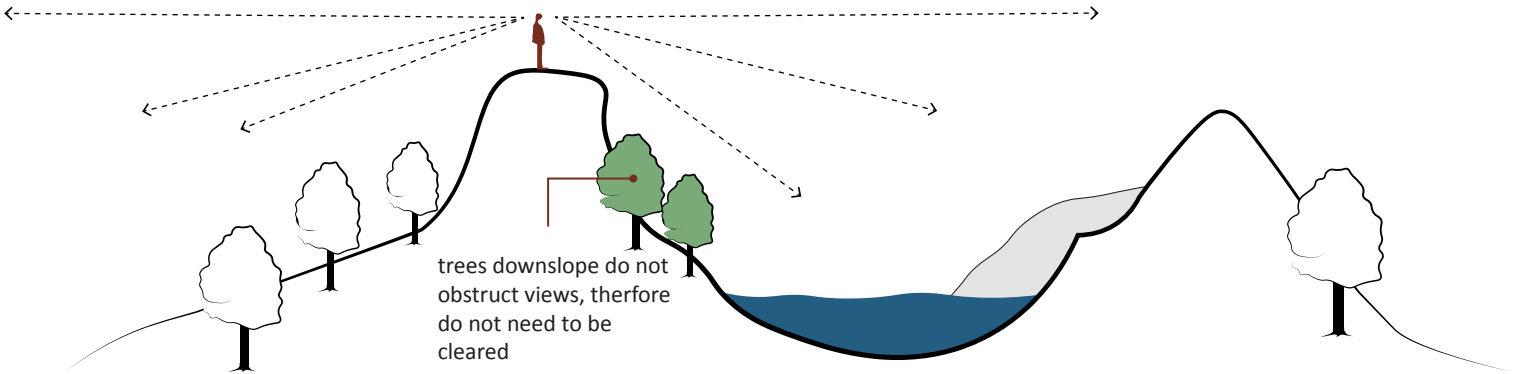
View from WIlderstein
Emily Gardner



OBSERVER ABOVE

The observer is at an advantage here, due to being placed well above visible landscape features. This position can be described as the least restrictive of all observer positions in terms of enclosure, screening, direction, or distance. All view types could be possible from this position, and it is here where creating a panoramic view is most likely. Although this position allows for the least visual blockage, the possibilities of viewing undesirable features in the landscape becomes more likely. The “Composing Your View” section of this document will provide information on view orientation and screening so as to limit undesirable objects within your viewshed.

Clearing larger vegetation up to the river edge is unnecessary in most Observer Above cases.



COMPOSING YOUR VIEW

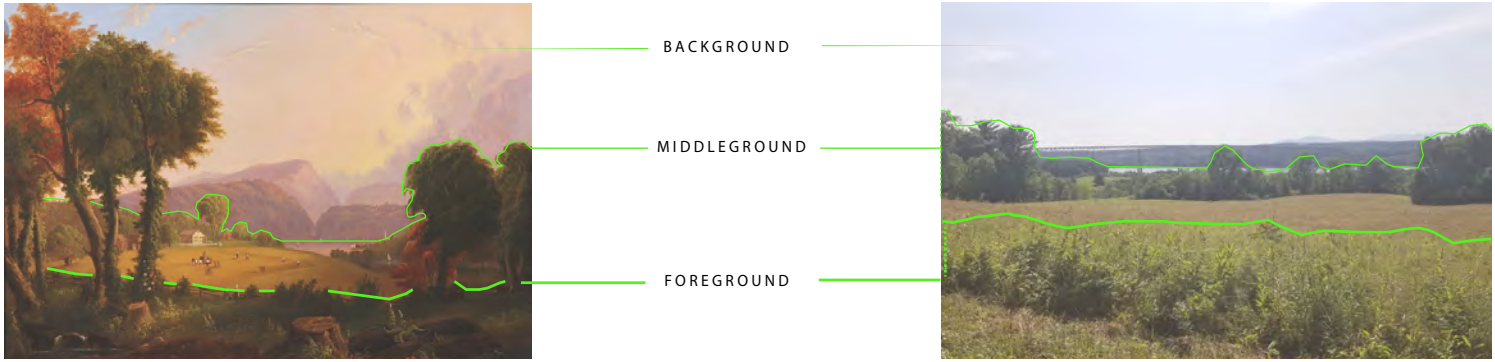
FRAMING YOUR VIEW

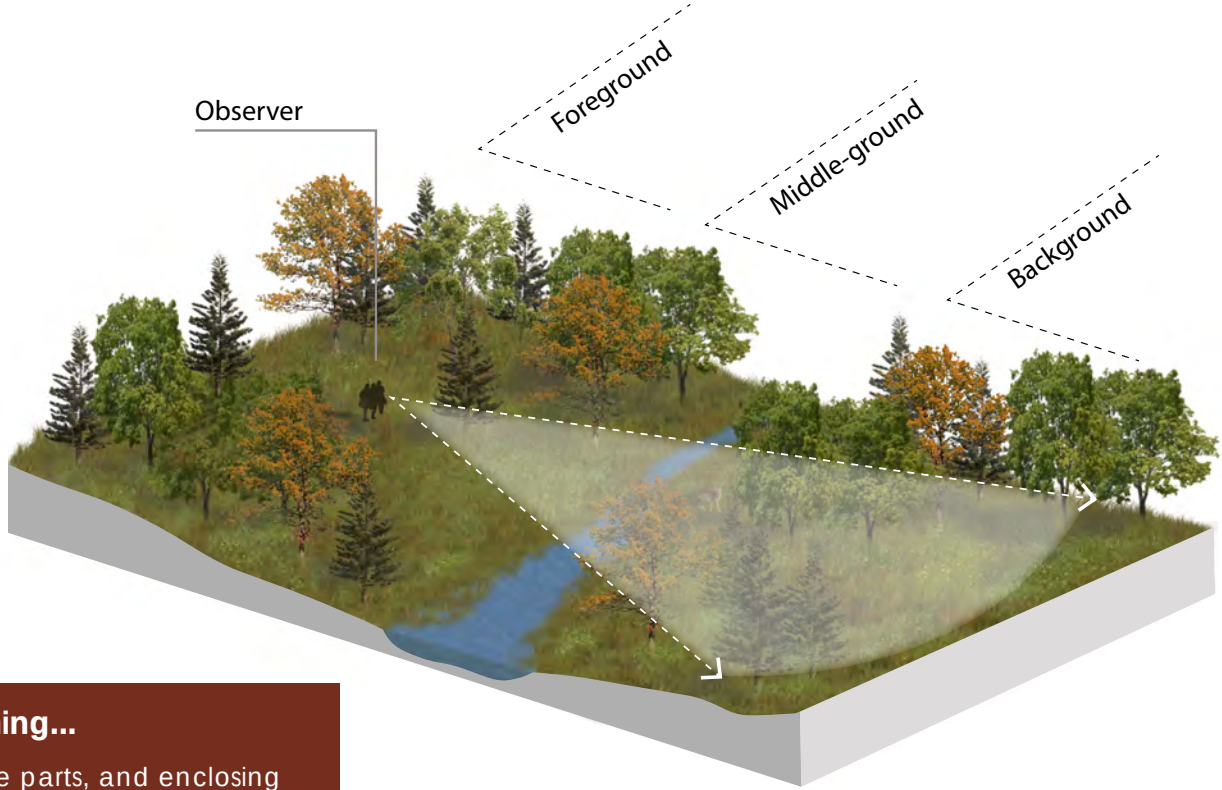
The first step in composing a view is determining the orientation - which direction will the view face? Which landscape elements do you wish to emphasize? What draws the eye, and why would someone have any desire to see through the forest? As with a painting, some objects will be more important to emphasize than others. It helps to decide what you want to emphasize in the foreground, middleground, and background of your view.

This approach will frame your view and determine which tree limbs you may wish to remove for optimization: Which limbs block your view of the river? Is there a power line you want to obscure with a new tree? Knowing your ideal orientation may answer these. Don't be afraid to hire an outside source to conduct a visual impact assessment.

THINGS TO KEEP IN MIND
IF CONSIDERING A **HISTORIC VIEW RESTORATION...**

- Identify vista points to be abandoned to forest succession due to natural processes, or which may be unusable due to safety concerns, or may otherwise be unsuitable for reestablishment.
- When possible, restore historic views, as there is likely young growth in these areas, which is preferable to remove over removing older, more established trees elsewhere.
- Remember that nature is not static, nor are the actions of your neighbors.





Notes from Downing...

"By shutting out some parts, and enclosing others, they divide the extent embraced by the eye into a hundred different landscapes, instead of one tame scene bounded by the horizon."

View Creation taking place at The Point
George Turner

STEP 3

CREATING YOUR VIEW

1. PLANNING FOR THE WORK
2. SELECTING BEST PRACTICES
3. PRACTICES TO AVOID
4. PREFERABLE METHODS
5. FEATHERING
6. PRUNING

PLANNING FOR THE WORK

Once the type of clearing has been determined, plans can be prepared for the work. Plans may be a requirement for a local or NYS DEC permit or approval, and will help to facilitate coordination with a contractor that may perform the work.

PLAN DRAWINGS

Plans should identify the type of clearing (removal, trimming, or a combination) as well as plans for site restoration. Plans should show any planting that might occur after the necessary removals or trimming. If a large area is identified for clearing, a permit may be needed for stormwater control until the site is stabilized or revegetated.

It also may be desirable to maintain some vegetation for wildlife habitat or to screen, whether on-site, which would be exposed by tree removal, or off-site, which would become visible to the viewer. The view creation plans should also allow for the creation of feathered edges, whether this is done during clearing or via revegetation after some trees are removed.

SCHEDULING AND PHASING

Planning for a view creation project also involves scheduling considerations. If a permit or municipal approval is required, that may have to occur on a schedule set by the agency or community. Some species are sensitive to disturbance during the warmer months – work in the spring and summer can negatively impact wildlife breeding - but the natural communities may be less susceptible to disturbance during the winter months. Your local NYS DEC office can provide guidance on this topic. Working in the winter, though, has additional benefits in that much of the vegetation will be dormant and soils will likely be frozen, minimizing disturbance to both. If possible, heavy machinery should be on-site during the time of year when the ground is still frozen and snow can provide some protection to the soil. Clearing in the winter is also beneficial in terms of visibility, as you will have a better idea of what the view will look like when trees are removed. It is also helpful in understanding view impacts from surrounding public view points.

Phasing a large project may benefit the budget as well as the habitat. Rather than executing all of the work at once, it may be best to clear a smaller portion of the viewshed each year, minimizing the cost per year, while also allowing the habitat to adapt as the work is performed over time. By taking this approach, you may find an acceptable view can be achieved with less cutting than anticipated. The overall width of a view corridor should be less than 150’ in order to minimize habitat disruption and allow wildlife to continue to move safely between the edges.

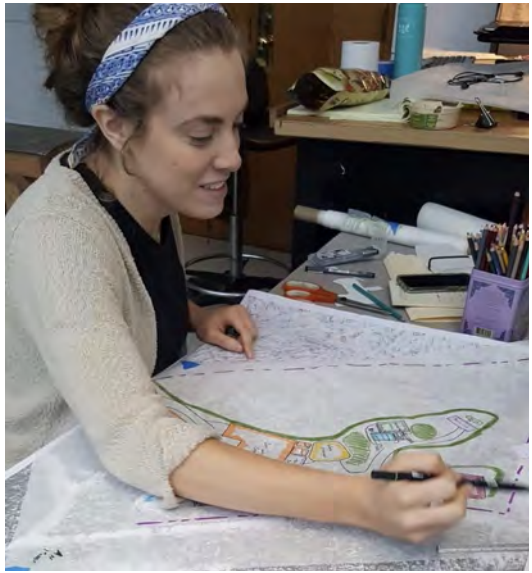
Create a sketch plan to illustrate your ideas:

- Use a base map to plan your project.
- Show cones to illustrate where the views will be (viewshed).
- Show clearing zones or limits.
- Mark individual trees to be removed.
- Show feathering or thinning areas.

Try several options or variations that could achieve your project goals and objectives. As you refine your ideas, add sufficient detail to show the improvements and ensure that the resulting view will be well-suited to your site.

- Quantify removals (trees to remove, area to clear- it's best to start small).
- Identify erosion control practices.
- Identify approaches for restoration, habitat, and stabilization plantings.
- Determine how often maintenance will be necessary, who will perform the work, and the anticipated costs.

When you have a final plan, be sure to consult your local municipality and NYS DEC for review and determination of whether permits or approvals are needed. Establish a schedule and contact contractors to identify the cost of the work. It is often best to work with a professional for tree pruning or removal operations. Make sure that the budget and schedule meet your expectations and any local or agency requirements before continuing with view creation.



Caroline Horgan creating sketch plans

SELECTING BEST PRACTICES

Once the analysis has been completed, the location and direction of the view have been determined, and the type of view has been identified, the clearing methods can be selected. The most effective methods will vary, depending on the location of the viewer and the type of view to be created.

For example, if the view will be from a hilltop high above the shoreline, it will likely not be necessary to clear down the entire slope in order to see the river. However, if the viewer will be standing close to water level, more tree removal will be necessary in order to eliminate obstructions to the sight line.

The type of view – panoramic, vista, keyhole, filtered – can dictate which tree removal practices are most appropriate.

A panoramic or vista view would require the most substantial removals, but rarely requires clear-cutting, as shown in the example, and may include a combination of meadows and forest. The creation of an unobstructed panorama view would necessitate removal of all trees, as well as much of the undergrowth.

A vista view could also require some significant tree removal or feathering practices, but if the distant view is significant, the viewpoint may be narrower and more limited.

The creation of a keyhole view may require only the removal of a few trees and trimming branches on others to open a glimpse of the landscape. The methods used could be a combination of removing a few trees and trimming branches on others.

If the goal is to create a filtered view, then some trees can remain in the viewshed, as long as glimpses of the river remain. Those trees that remain should be clustered in the view, as to not fully obstruct it, and should also be non-invasive species that add aesthetic interest (e.g., tree shape, leaf texture, fall color). It may be possible to achieve a filtered view just by clearing undergrowth or by trimming select branches from some of the trees in the viewshed, and removal of entire mature trees may not be necessary at all.

When trees are removed, care should be taken to disturb the soil and leaf litter as little as possible. Tree stumps and roots should remain in place to help stabilize the soils. Dead and downed trees can add visual interest, what Downing would have considered Picturesque.

When executing the work, care should be taken to minimize the risk of erosion, particularly in areas with steep slopes. Any heavy machinery should access the work area parallel to the contours, rather than straight down a slope, so that any ruts that may result block downhill runoff and do not facilitate erosion.

BEST MANAGEMENT PRACTICES

1. Select methods to minimize environmental impacts.
2. Retain older trees, particularly if they were elements of an historic vista, unless they present a hazard.
3. Equipment should be inspected before clearing activities to ensure that machinery is clean and free of weed seed and debris.
4. Work crews should avoid soil compaction when operating heavy equipment in wet or compactable soils by distributing machinery weight with military landing mats, snow, heavy plywood, or alternatives.
5. Work crews should follow best management practices to avoid spills, and carry containment materials at all times in case a spill occurs.

Selective tree removal to create a view from a trail within a young forest habitat at Scenic Hudson's High Banks Preserve. Work included removal of two large trees, very few small trees, and pruned branches. Branches were retained as a wildlife brush pile.

PRACTICES TO AVOID

CLEARCUTTING

This involves complete removal of trees in a given area where a view is to be created. Clearcutting can be an effective forestry approach, if the goal is to stimulate the growth of new trees and shrubs. However, because these new trees will block future views and Hudson River vistas often include sensitive slopes, this approach is generally not recommended.

clearcutting

THINNING

The removal of “smaller, weaker trees” to open up more resources to healthier ones. Keep in mind that excessive thinning will thin the overall canopy, letting in too much sun, while insufficient thinning will create minor spaces that fill back in during forest regeneration. This method is not preferable; the remaining trees will grow into the space created by the limited tree cutting, quickly obscuring the view. Thinning might, however, be used to feather the edges of a view that was created using one of the other described methods.

thinning

PREFERABLE METHODS

SELECTIVE CLEARING

Selective clearing is not a one-size-fits-all approach. Different forest ecosystems call for different methods. Some of these methods may be used in tandem depending on the given site conditions. The non-traditional method of snag retention may be used alongside any of the other listed clearing methods.

PATCH CUTTING

This is clearcutting on a smaller scale, where a specific *matrix* of trees is removed. Patch cutting is a useful means of creating clear site borders, in sometimes expanding a buffer against outside disturbances. Please note, however, that brush quickly accumulates in the area's understory, blocking your view if left unmaintained.

patch cutting

SNAG RETENTION

Snag retention cut— A "snag" is any standing tree that is dead or dying, or poses a safety risk (i.e., danger of falling in pedestrian path). The snags that you are considering leaving on site should be assesed for these potential safety risks. The primary reason for leaving snags is that they are beneficial to many species of fungi, bats, birds, and insects.

Notes from Downing...

"A broken or crooked limb, a leaning trunk, or several stems springing from the same base, are frequently peculiarities that at once stamp a tree as picturesque."

snag retention

FEATHERING

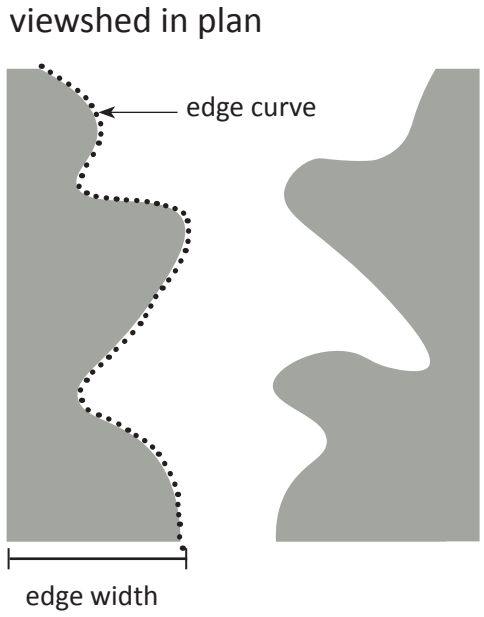
This technique ensures a gradual transition from cleared areas to the surrounding natural vegetation and removes unnatural straight lines in the landscape. Rather than preserving a landscape at a static point, feathering creates curves and edges that disguise human disturbance.

EDGE CURVE

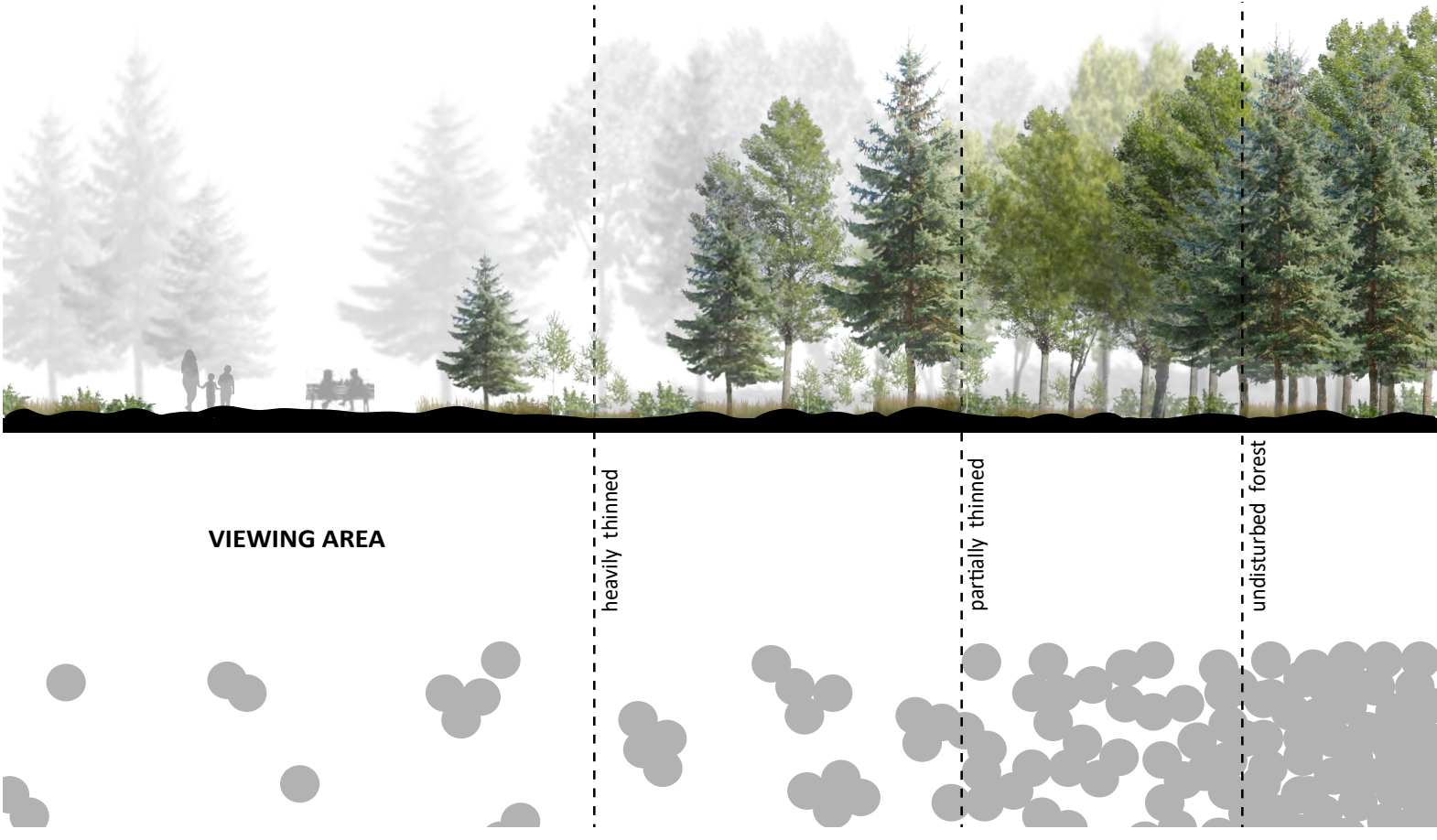
A lack of straight lines reflects a healthy and diverse ecosystem: elevations change, streams meander, and species grow at different rates. Clearing to different extents across your site buffer makes for a variety of forms and, in turn, space for processes like succession and crown expansion.

EDGE WIDTH

Varying edges gradually allows for the slow transition of plant communities. In order to maintain this through feathering, mind the physical width of your clearance zone. Typically, it helps to keep that zone 150' on either side—especially when your vista includes an open area such as a meadow.

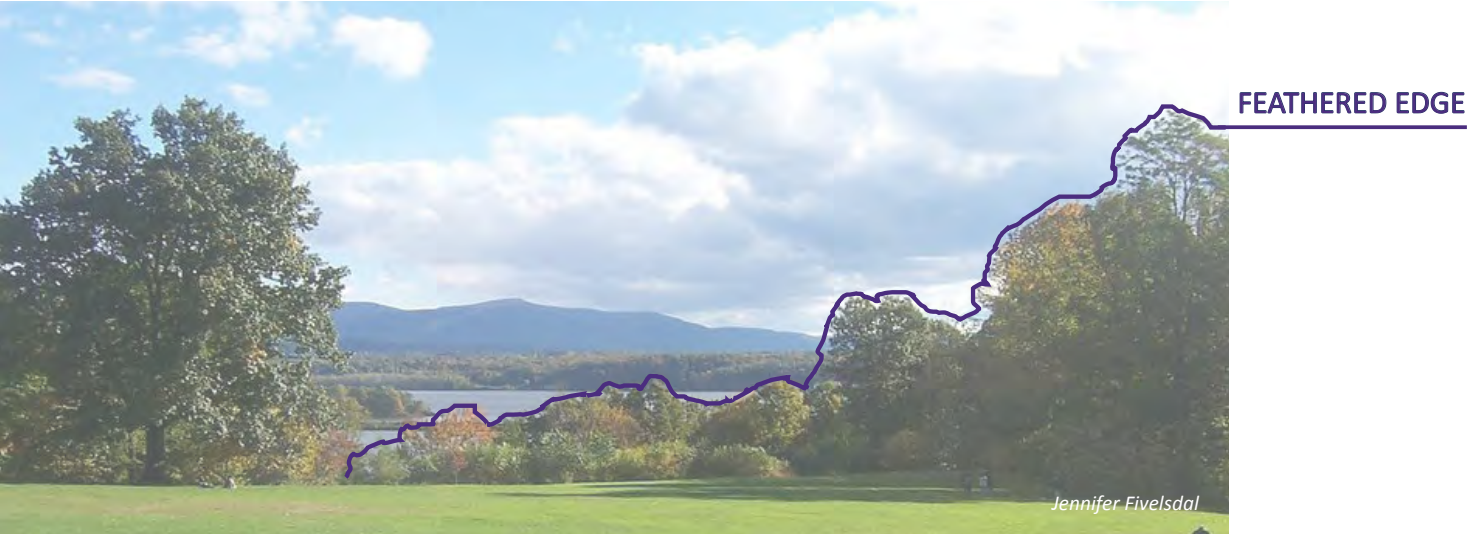


FEATHERING THROUGH GRADUAL THINNING



THE FEATHERED EDGE

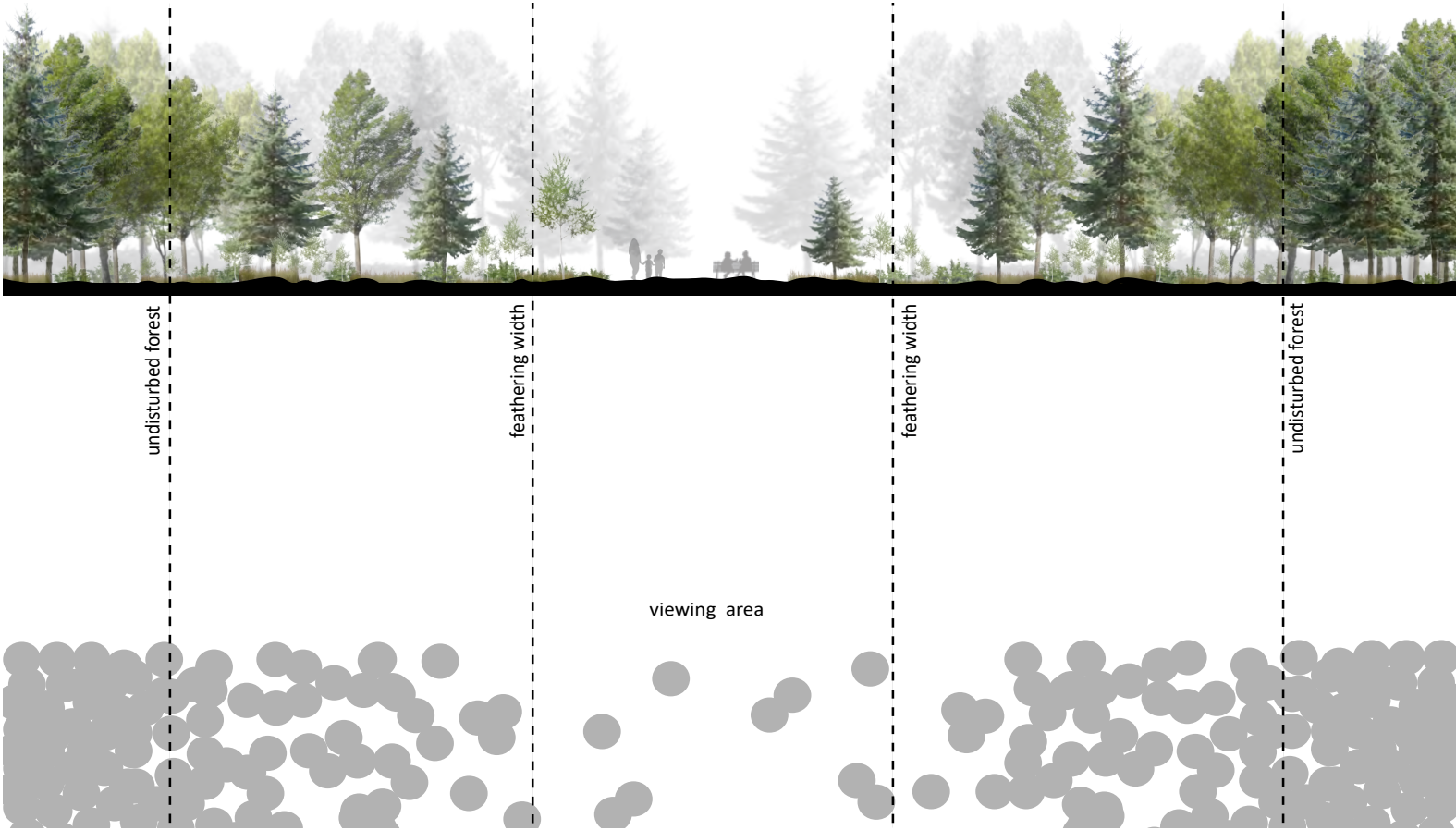
A feathered edge should mimic a natural clearing edge and should be random both vertically and horizontally, as highlighted in the diagram below. The feathering width on either side of the viewing area should be equal to or slightly less than the viewing area width, as shown in the adjacent diagram.

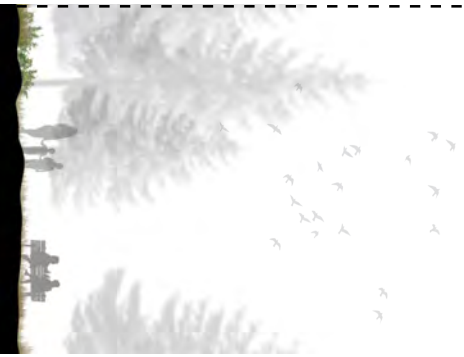


Notes from Downing...

"There should be more of the wildness of the finest and most forcible portions of natural woods or forests, in the disposition of the trees... They should often be intermixed with smaller undergrowth of a similar character... and formed into such picturesque and striking groups, as painters love to study and introduce into their pictures."

FEATHERING WIDTH





GRASS MEADOWLANDS

mostly grass and other perennial herbaceous meadow species with some young growth shrubs

SAPLINGS AND SHRUBS

sapling, shrub, and grass communities
(1-10 year growth)

YOUNG TREES

mostly young growth pines with some hardwood saplings serving as hardwood transition phase
(10-50 year growth)

SECOND GROWTH

semi-mature hardwoods with some older growth conifers
(50-150 year growth)

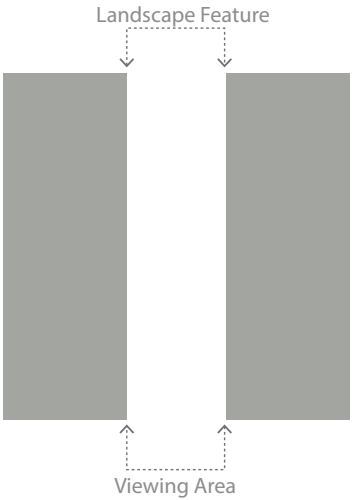
OLD GROWTH

mostly mature oak, hickory, and other hardwoods
(150+ year growth)

FEATHERING & HABITAT

Feathering can create and maintain a variety of habitats that support numerous wildlife species. This graphic illustrates the diversity of wildlife that might exist within the habitats of a single vista.

CRITERIA FOR PROPER VIEW CREATION



edge irregularity

viewshed is cone shaped

viewshed increases in width as it approaches landscape features

trees left in viewshed

edge irregularity

➡ viewshed is cone shaped

viewshed increases in width as it approaches landscape features

trees left in viewshed

edge irregularity

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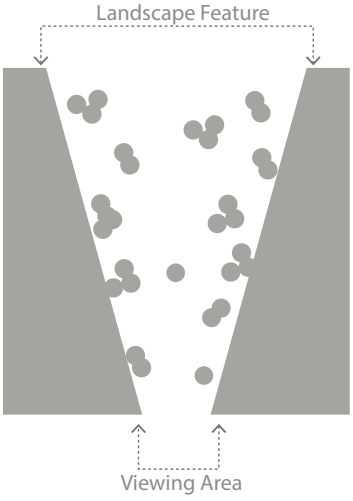
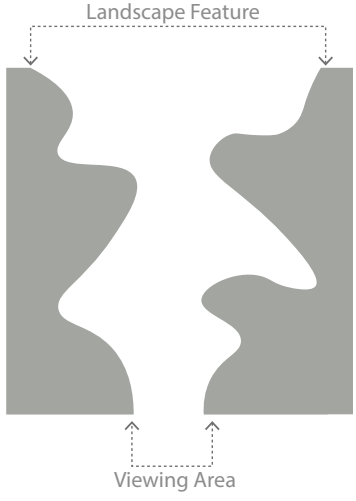
trees left in viewshed



edge irregularity

- viewshed is cone shaped
- viewshed increases in width as it approaches landscape features
- trees left in viewshed



- edge irregularity
- viewshed is cone shaped
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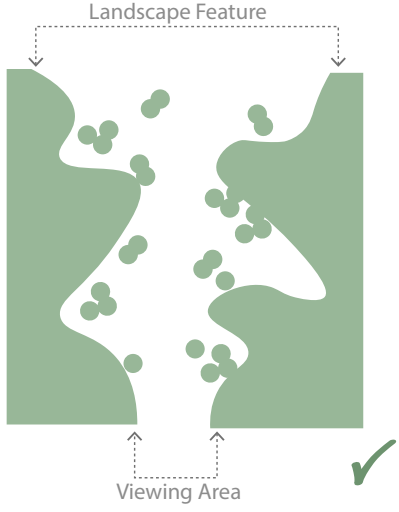
trees left in viewshed



- edge irregularity
- viewshed is cone shaped
- viewshed increases in width as it approaches landscape features
- trees left in viewshed

PRUNING

It is likely that pruning and maintenance will be part of the selected practices for view creation. Perhaps the goal is a keyhole view that can be achieved with removal of just a few tree limbs. Pruning is also an important component of feathering the edges of a view corridor. Rather than removing entire trees, a few branches can be removed to allow a sightline through while keeping a 'soft' frame around the view. Pruning can also be used to improve the appearance of a tree by removing certain fast-growing stems that seem out of proportion, or to remove unwanted growth. However, proper pruning technique and timing are critical to long-term tree health.

PRUNING TYPES

Just as there are different reasons for pruning, there are different types. The site inventory might reveal small trees whose branching structure could be improved. Trees may be present that have dead, dying, diseased, broken, or poorly attached branches or branches that are crossing or rubbing against one another. Pruning early in a tree's life cycle can facilitate proper structure and crown development.

Crown cleaning - removal of these types of branches - can reduce the risk of pest or disease spread and can increase the vitality of the tree. This practice can also reduce the risk of failing branches, as well as damage or injury should these limbs fall.

Crown reduction decreases the overall size of the tree and is usually an attempt at making a tree that is too large fit into its location. If there is a risk of wind damage, properly lowering a tree's crown density can reduce the overall mass and thereby reduce the motion of limbs due to the wind.

Crown raising elevates the crown of the tree by removing some of the lower branches. The lowest branches remaining will be the lowest branches on the tree as it matures. This may be done to accommodate traffic or a line of sight. It is possible to frame a view using this technique, particularly if the viewer position is "viewer superior" and it is possible to look under the canopy of a large mature tree to see the focal point.

TIMING

Proper pruning entails consideration of timing and extent. Care should be taken to allow a tree time to heal over from any previous pruning or damage, in order to minimize the risk of pest and disease damage. Larger cuts require more time and resources to recover. Also, pruning should not be done during a time that the tree is under stress, such as during drought conditions. Pruning affects the canopy, as well as the

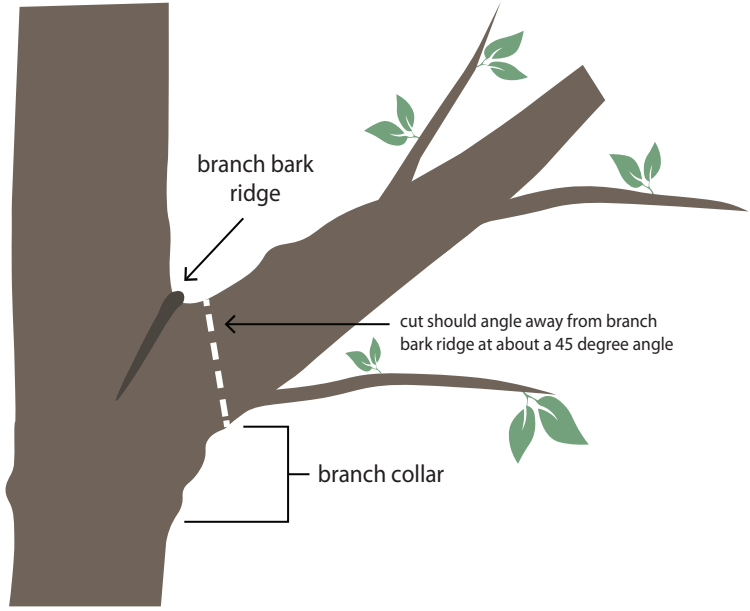
roots of a tree. The foliage produces food that is stored in the roots. Excessing pruning can lead to nutrient deprivation and recession of roots, which can jeopardize soil and slope stability.

STAGING

The extent of pruning appropriate for a given tree varies with its size and age. A young, fast-growing tree can recover quickly and may tolerate pruning of up to 50% of its foliage, while a medium-aged tree might only tolerate 25% and a mature tree as little as 10% of its foliage. Extensive pruning operations should potentially be staged over months or years to minimize stress to the tree and allow the resulting 'wounds' to heal. At any one time, the overall size of any tree should be reduced by no more than a quarter. If a situation arises that requires excessive or severe pruning, this may overly stress a tree; the best solution may be to remove the tree and replace it with a species more appropriate for the site.

POINT OF ORIGIN

Proper pruning entails removal of a branch or limb "back to a point of origin," such as where branches meet, while leaving the *branch collar* intact (see illustration). Improper pruning can result in stubs and wounds that don't heal properly, a higher chance of disease and decay, and the growth of sprouts that are poorly attached and prone to weather damage.



Harrier Hill Park, Hudson, NY
Emily Gardner

STEP 4

AFTER VIEW CREATION

1. MANAGING DOWNED TREES
2. REVEGETATION TECHNIQUES
3. SLOPE STABILITY & INVASIVE SPECIES

MANAGING DOWNED TREES

As trees and other vegetation are cleared or trimmed to create a view, plans should be in place for what to do with the cut material that results. The downed trees, limbs, and brush may be referred to as *slash.* Material may be kept on site, hauled off site, used as firewood, or a combination of the three.

KEEPING MATERIAL ON SITE

Keeping material on site when possible is important as it provides soil nutrient regeneration, habitat maintenance, and slope stabilization.

Chip & mulch: Vegetation is chipped, then distributed throughout the site as mulch.

Lop & scatter: Vegetation is cut and dispersed on-site in order to maximize soil contact and allow it to decay. The depth of scattered material should not exceed 24 inches. Additionally, it is important not to leave large slash in meadows (where this type of material would not naturally be present) or areas with slow decay rates.

Brush Piles: Downed vegetatIon is piled together to create a berm on site. This method can provide shelter for small wildlife and can slow and dissipate stormwater runoff and minimize erosion if placed on a slope. Several strategically placed medium-size piles (roughly 15' in diameter and 6' high) are better than one large one. Larger logs should be placed on the bottom, with 6"-12" spaces between to act as "tunnels" under the finished pile. Slightly smaller logs should be placed on top of the larger logs, perpendicular to the first layer. Small limbs and brush should be placed on top, with the overall pile being denser in the middle and looser on the edges. Piles can be placed strategically down a slope so as to not interfere with the view, while still enhancing habitat and helping to stabilize slopes and soils.

SLASH WALLS

Slash walls are long linear brush piles that are built to exclude deer from a site. In the case of view clearing, slash walls can be built to protect planted shrubs from deer browse. By the time the pile decomposes, the shrubs will be established and will not need the additional protection.

Cornell Cooperative Extension slash wall project at Cornell's Arnot Forest in 2017. Over 400 acres have been successfully protected here.

REVEGETATION TECHNIQUES

Vista sites should be revegetated if necessary after tree removal is complete by seeding or planting native plants that will not obscure the view in the future. Low shrubs and groundcover can be used to support preservation of views.

While unmanaged growth may be what obscured the view of the river, it is necessary to revegetate the site when trees are removed. Vegetative functions like soil stabilization and water filtration depend on sufficient plant density. Proper stewardship is not at odds with view maintenance. There are benefical revegetation techniques, such as spreading native seeds obtained from companies that specialize in restoration practices.

GOALS FOR REVEGETATION

1. Decrease negative visual impacts due to site management activities.
2. Choose plantings that blend with surrounding existing vegetation.
3. Establish self-sustaining native vegetation that would not obscure the view.
4. Sustain weed-free project sites.
5. Provide erosion control.
6. Screen existing structures.
7. Treat invasive non-native plants.
8. Protect plantings from deer using fencing, tree tubes, or slash walls.

SLOPE STABILITY & INVASIVE SPECIES

Plants may be added to inhibit regrowth of tall trees. Herbaceous plants, shrubs, and smaller trees that spread by runners can be used for soil stability and provide low-stature wildlife habitat without obstructing views.

Plants chosen for the top of the slope should be herbaceous, while those placed mid-slope should be small shrubs, and those along the bottom of the slope should be larger shrubs and small trees – as tall as allowable to stabilize and buffer the Hudson River. Deer-resistant shrubs should be chosen since overbrowsing will occur. **Suggested plants include: hop-hornbeam; flowering and shrubby dogwoods; sumacs; all native willow shrubs; spicebush; mountain laurel; fragrant sumac; blueberries; huckleberries; brambles; grasses or sedges; wild grapes; and Virginia creeper.** It is important to note that even if specified as "deer-resistant," nearly all trees and shrubs are susceptible to browse and protective measures should be taken.

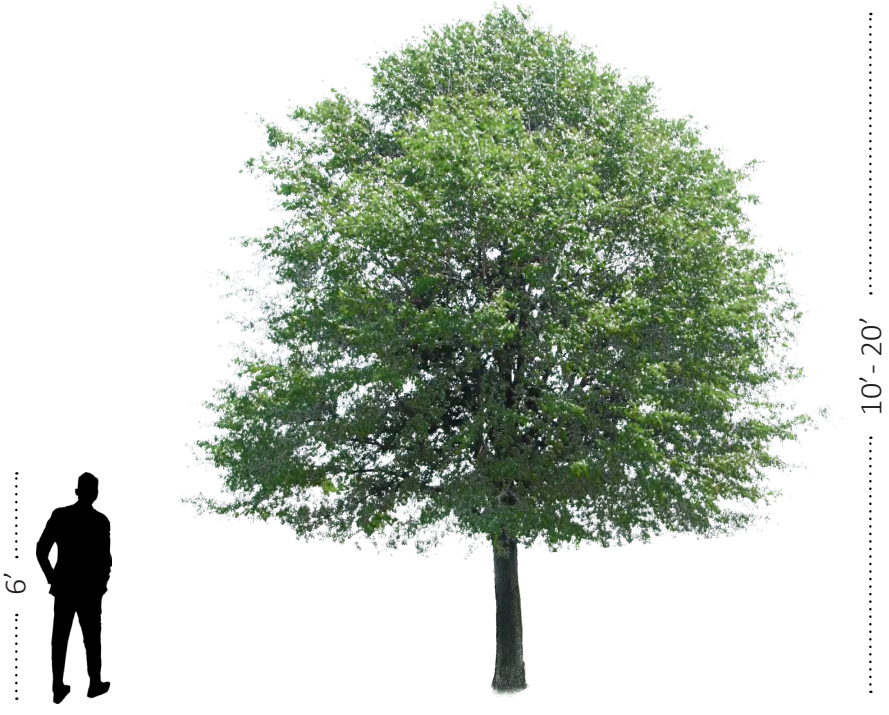
Erosion control blankets stabilizing a slope

EROSION CONTROL BLANKETS

While removal of vegetation on steep slopes should be avoided, if it must be done, revegetation practices may occur in tandem with erosion control blanket placement. The erosion control mats will serve as a slope stabilizer, giving the newly planted vegetation time to mature. Once established, the mats will serve as the primary slope stabilizer. The adjacent photograph is an example of how these two methods can be used together.

SAMPLE HEIGHTS OF NATIVE SPECIES FOR REVEGETATION

Hophornbeam
Ostrya virginiana



Staghorn Sumac
Rhus typhina

Red Twig Dogwood
Cornus sericea

5’ - 10’

Highbush Blueberry
Vaccinium corymbosum

3’-5’

Little Bluestem
Andropogon gerardii

1’ - 3’

Pennsylvania Sedge
Carex pensylvanica

1’

View from Storm King
Kristin Sullivan

STEP 5

MAINTAINING THE VIEW

1. MAINTENANCE & MANAGEMENT PLANS

MAINTENANCE & MANAGEMENT PLANS

Maintaining a view will involve determining the type of maintenance, as well as the frequency and costs.

All plant materials should be allowed to grow and develop in a natural organic state in terms of shape, size, and character. Once vegetation is initially established, the general maintenance to be performed should be limited to minor pruning for visual safety at road intersections or similar areas, and for trail and pathway clearances. Seasonal checks should be performed for invasive species, with prompt removal as appropriate. Viewshed maintenance should be incorporated to any existing site master plans. This will likely include limbing, invasive species mitigation, and revegetation when necessary, and may include annual/biannual mowing practices for meadow areas. In areas that are difficult for human or equipment access, an innovative maintenance strategy may include grazing by animals to limit vegetation growth. Determine how often maintenance will be necessary, who will perform the work, and the anticipated costs.

NYS DEC

Goats maintaining the Wilderstein Historic Site vista

It will likely be necessary to do more maintenance closer to the viewpoint and in areas with younger vegetation, than in more mature areas. For example, for a viewpoint at the top of a forested hillside, a meadow may have been created closest to the viewer, with a few mature trees framing the viewshed. As the slope drops away from the viewer, there may be shrubs, then small trees, then some large trees that are below the line of sight.

MANAGEMENT PLANS

It is important after view creation takes place to set up a clear management plan of guidelines detailing how this view will be maintained. Some items on this management plan may include..

- annual pruning of a few branches that enter the edges of the viewshed
- winter removal of competing trees from the shrub and young-growth area every two years
- occasional winter cutting of one tree at a time in the mature area to maintain or refine the view
- leaving the shoreline natural

Notes from Downing...

"the surface and grass, in parts of the scene not immediately in the neighborhood of the mansion, may be kept short by the cropping of animals, or allowed to grow in a more careless and loose state, like that of tangled dells and natural woods."

"Most of our native woods, too, have grown so closely, and the trees are consequently so much drawn up, that should the improver thin out any portion, at once, to single trees, he will be greatly disappointed if he expects them to stand long; for the first severe autumnal gale will almost certainly prostrate them. The only method, therefore, is to allow them to remain in groups of considerable size at first, and to thin them out as is finally desired, when they have made stronger roots and become more inured to the influence of the sun and air."

Finished View from The Point
Hudson River Estuary Program

EXAMPLE PROJECT

The Point at Mills-Norrie State Park

THE POINT AT MILLS-NORRIE STATE PARK

PROPERTY HISTORY

The Point is a property located within Mills-Norrie State Park in Staatsburg, NY. Calvert Vaux, the architect of the site in 1855, designed five view corridors through the wooded slope along the river, visible from the porches and interior rooms of the main house, once home to the Hoyt family. Hoyt House and its setting within the Hudson River Valley provide an example of the approach to picturesque landscapes that Vaux and Frederick Law Olmsted would later develop in partnership while designing Central Park in New York City.

With a lack of maintenance over the years, tree regrowth substantially blocked these once open vistas. It was decided by the project team and the Calvert Vaux Preservation Alliance (CVPA) that at this time, one view would be restored, but CVPA, in partnership with New York State Parks Taconic Region, intends to re-create at least three of the other Vaux view corridors as time and funding allow.

Hoyt House, designed by Calvert Vaux in 1855

CREATING THE VIEW FROM THE POINT

The selected corridor, within an area of approximately 0.44 acres, establishes a filtered view of the Hudson River and a keyhole view of the Catskill Mountains in proximity to two of the property's historic vistas to the north/northwest of the Hoyt House.

View creation goals included:

- a subtle and aesthetically engaging view to the river, distant shoreline, and Catskill Mountains beyond
- a minimally disturbed shrubland that provides wildlife habitat and erosion control without blocking the view

The example project took place in late winter to minimize impacts to declining bat species which are known to roost in trees from April to October before migrating south or hibernating locally in caves. The first step was to conduct an inventory of all trees in the corridor, which included identifying the size, species, and health and safety of each specimen.

To create the view, select trees were tagged in the field for removal. No clearing was undertaken at the bottom of the slope, in an area approximately 50' from the existing trail. This will help to maintain and protect habitat and slope stability and avoid negative impacts to the trail route.

The edges of the clearing were "**feathered**" – maintaining mature trees and branches along the edges of the view corridor for a natural effect, which was a favored method utilized by landscape designers during the Romantic Picturesque period.

Aerial map of historic views and the new view location

THE PROCESS

1

Ribbons mark the approximate view corridor.

2

As work begins, some brush material was piled to the side. Invasive shrubs and vines were also cleared.

3

Felled trees were chipped and spread on site. All tree roots and leaf litter were left in place for slope maintenance.

4

Natural logs and fiber logs were installed parallel to the slope to help prevent erosion.

5

Final clearing efforts involved piling and chipping downed materials.

AFTER CLEARING

Restoration plans include establishment of lawn areas and planting of native, low-growing shrubs to provide further erosion control and habitat, while not impacting the view. The area for new planting was protected with brush piles created from cleared materials.

FINAL VIEW OPENING

Feathered Edges: Gradual transition of vegetation density from uncleared areas to cleared viewshed.

Vegetation along the bottom of the slope was left in place to help maintain soil stability and protect rare species habitat along the Hudson River shoreline.

Keyhole View: View is properly framed by surrounding vegetation to create a small opening to the surrounding landscape features.

Large trees left in viewshed for both visual interest and slope stability, which was a common technique used for **“picturesque”** landscape designs of the late 19th century.

CONCLUSION

The Hudson River Valley landscape is a combination of working and natural areas that have supported industry, inspired artists, and continue to serve as home for both humans and wildlife alike. Nineteenth century designers such as Andrew Jackson Downing and artists like Frederic Church and Thomas Cole captured iconic views of the valley landscape and inspired an aesthetic that still resonates today.

As we look forward to the future of this living landscape, we seek to identify ways to balance aesthetic goals, ecological considerations, regulatory requirements, and overall best management practices. From “beautiful” manicured estate lawns to “picturesque” wild stream corridors, creating and managing views of the romantic Hudson River Valley can enhance vistas and the natural environment.

Proper site analysis and planning for views, strategic execution, and thoughtful revegetation and maintenance can help property owners achieve their visual goals – such as highlighting a desirable focal point and screening nearby undesirable elements – while also protecting soil stability, water quality, and sensitive species, enhancing habitat and biodiversity, and minimizing the spread of invasive species.

Blithewood Gardens at Bard College in Annandale-on-Hudson, NY
Emily Gardner

GLOSSARY

Beautiful— One of two primary theories of landscape design (see *Picturesque*) developed by Andrew Jackson Downing. A "beautiful" space is characterized by gently flowing lines; regularity and roundness; balance and symmetry.

Clearcut— The complete removal of all trees in a given area. Typically, a clearcut forest will regenerate with even-aged trees.

Crown Expansion— Crown *cover* is the portion of a site that is covered with canopy and, in turn, is subject to a certain level of light penetration. Crown *expansion* is the growth of that canopy.

Dynamic [Site Access]—A view from a vehicle moving (A) in front of or (B) perpendicular to the lane of travel.

Feathering— Means of creating a gradual transition from cleared areas to the surrounding vegetation or riverbank; results often evoke non-human clearing scenarios.

Filtered View— Can be of any width, but are partially obstructed by trees within the view. As a result, the viewshed can offer multiple glimpses of the distant landscape.

Intactness—The extent to which a landscape is unaffected by external forces. This quality applies to the area being viewed rather than the viewpoint.

Keyhole View— This is the most narrow view type, offering small glimpses of distant landscape features rather than a vast sweeping view.

Limbing— Process of removing branches from a trunk.

Log Check—Created when a felled tree is placed in a shallow trench on a clearing zone's given contour. This is a useful method for intercepting storm runoff in areas of decreased forestry.

Line-of-sight— The line / extent between the observer's eye and a given point.

Observer Below— In which the viewer is station below their surrounding landscape features. Arranging for this view by a river takes special care, due to range of possible view barriers.

Observer Level— In which the viewer's immediate line of sight is level with the surrounding visible landscape features.

Observer Above— In which the viewer is either above or at level with the surrounding features.

Panoramic View— Can be described as *unobstructed* in all directions.

Patch-cut—Clearance method similar to clear-cutting (see definition above), but on a smaller scale: A specific matrix of trees is removed, sometimes in the interest of creating habitat borders within the broader forest system.

Picturesque— The second primary landscape design theory, characterized by irregularity and rough, broken shapes in a landscape. Picturesque is the aesthetic opposite of Beautiful, although the "superior" mode varies by site.

PRISM — Partnerships for Regional Invasive Species Management, coordinate invasive species management functions including coordinating partner efforts, recruiting and training citizen volunteers, identifying and delivering education and outreach, establishing early detection and monitoring networks and implementing direct eradication and control efforts.

Riparian—Transition from upland to river habitat, characterized by plant communities that prefer or tolerate high water quantities.

Romantic— A sensibility which prioritized sites that were irregular and dynamic. Romantic philosophers considered these site more "natural" and, in turn, superior to unchanging, overly manicured areas.

Slash— Logs, branches, or other vegetation that is cut or trimmed.

Snag— Any standing tree that is dead or dying,often missing a top or most of the smaller branches. When located in areas away from trails or other saftey concerns, snags can provide birds and mammals with shelter to raise young, serve as vantage points for raptors, and host insects, lichens, mosses, and fungi which provide food for other species.

Static [Site Access]—Viewed while in a stationary position, such as standing in front of a given viewpoint (see “”Dynamic Site Access”).

Succession— The long-term process of change within an ecological community. Thinning may also involve the removal of small saplings or other understory growth, leaving larger trees in place.

Thinning— The removal of dead or ailing trees to provide space for healthier ones.

Uniqueness—The quality of [a vista] containing a feature that does not appear in other viewsheds.

Viewshed— The view of an area from a given point.

Vista View— A distant view through an avenue or opening.

Vividness—The extent to which a site’s scale; borders; and focal point make that site memorable. This quality applies to the condition of the vista point.

APPENDICES

MAPPING TOOLS

Environmental Assessment Form Mapper http://www.dec.ny.gov/eafmapper/
This tool evaluates environmental, cultural, and historic features. The Environmental Assessment Form is completed if a project is subject to SEQR— State Environmental Quality Review.

Hudson Valley Natural Resource Mapper https://gisservices.dec.ny.gov/gis/hvnrm/
An interactive tool designed to help identify and understand important habitat and water resources, the connections between them, and their broader regional context.

Web Soil Survey https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm
Offered through the USDA Natural Resources Conservation Service, this tool will map and identify soil types within an area of interest, while also providing slopes and information about soil suitability.

Cultural Resource Information Service (CRIS) https://cris.parks.ny.gov/
Through the NYS Historic Preservation Office (SHPO), CRIS provides access to NYS historic and cultural resource databases and mapping, as well as National Register documents, building and archaeological inventory forms and survey reports, and other data.

Discover GIS Data NY https://orthos.dhses.ny.gov/
This website provides detailed aerial photography of New York State.

AGENCIES AND REFERENCES

New York State Arborists https://nysarborists.com/
Arborists specialize in the care of trees. This website can help you find a certified arborist and learn about their services.

New York State Department of Environmental Conservation (NYS DEC) www.dec.ny.gov
State agency created to protect and enhance the environment, whose work includes promoting outdoor recreation; preserving, restoring, and enhancing, nature; pollution prevention and control; regulatory items; and environmental education.

NYS DEC Cooperating Forester Program https://www.dec.ny.gov/lands/5230.html
Foresters provide professional services and advice to landowners and can provide in-depth technical assessments and planning.

NEIWPCC www.neiwpcc.org
A regional commission that helps the states of the Northeast preserve and advance water quality, and provides education, training, and leadership in water management and protection. NEIWPCC engages and convenes water quality professionals and other interested parties from New England and New York to collaborate on water, wastewater, and environmental science challenges across shared regions, ecosystems, and areas of expertise.

Hudson River Estuary Program https://www.dec.ny.gov/lands/4920.html
Focuses on clean water; resilient communities; a vital estuary ecosystem; estuary fish, wildlife, and habitats; natural scenery; and education, river access, recreation, and inspiration within the Hudson River Valley.

Army Corps of Engineers https://www.nan.usace.army.mil/
Work includes wetlands identification, permitting, and conservation easements.

National Parks Service www.nps.gov
The National Park Service is an agency of the United States federal government that manages all national parks, many national monuments, and other conservation and historic properties with various title designations.

Lower Hudson Partnership for Regional Invasive Species Management (PRISM) https://www.lhprism.org/
The Lower Hudson Partnership for Regional Invasive Species Management protects biodiversity and ecosystems of the Lower Hudson region through partnerships and collaborations that focus on controlling the introduction, spread, and harmful impact of invasive species.

Capital Region PRISM http://www.capitalmohawkprism.org/
The Capital Region PRISM works to limit the spread of invasive species throughout New York State. It provides services in Albany, Columbia, Montgomery, Rensselaer, Schenectady, Fulton, Herkimer, Saratoga, Warren, and Washington counties.

SITE INVENTORY CHECKLIST

Site Name _____

Type of Property _____ Owner _____
Property Address _____
Parcel/Tax ID Number _____._____ - _____ - _____

Site Accessibility for Heavy Equipment: _____ Good _____ Limited _____ Poor
Viewpoint Accessibility for Users of All Abilities: _____ Good _____ Limited _____ Poor

Notes for Improvement: _____

Ecological & Environmental Considerations

Invasive Species Present _____
Endangered Species Present _____
Identify _____

Slope (flat, gentle slope, steep slope)
Soil Type: _____
Soil Stability: _____ Stable _____ Slightly Erodible _____Erosion Risk

Distance to nearest waterbody/wetland area _____ feet
Are buffer plantings present between the project area and water or wetlands?
Need to screen undesirable features on/adjacent to the site? (Consider view back into the property)

Type of View

_____ Filtered _____ Panorama
_____ Keyhole _____ Vista
_____ Creation of new view
_____ Maintenance of existing view
_____ Restoration of historical view

Regulatory Items

_____ Site has a Management Plan in place _____ View creation is consistent with Management Plan

Zoning District: _____

_____ Site is within an overlay district (e.g., scenic, waterfront) If so, type: _____

_____ Site is within a watershed protection area

Any ridgeline protection?

_____ Project is within an area identified in an Open Space Plan

_____ Municipality has an adopted Local Waterfront Revitalization Plan that includes the site.

_____ Easements exist on property (utilities, access, conservation) If so, identify: _____

Additional Municipal Regulations or Permits needed:

_____ Site Plan Review

_____ Special Use Permit

_____ Tree Clearing Permit

_____ Other:

Goals for View Creation:

Additional Notes:

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Etching of "Blythewood" from A.J. Downing's *Treatise on the Theory and Practice of Landscape Gardening.*