



GREYLOCK GLEN

Four Seasons of Outdoor Recreation in Adams, Massachusetts

Exhibit Plan

2022



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Summary

The Greylock Glen Resort holds incredible economic and environmental potential for the Town of Adams and Berkshire County. At the resort's center sits The Outdoor Center at Greylock Glen ("the Center"). This 9.2K square-foot building, designed by Maclay Architects, will serve as a multipurpose facility and environmental education center for lay audiences while providing local colleges (e.g., MCLA) a place for naturalist and environmental research. The Center will also offer public meeting space, classroom facilities, and a programmable exhibit area.

The indoor exhibit area has been envisioned as an adaptable space that can be modified as desired by an Environmental Education Provider ("The Provider") selected through a competitive RFP. The Provider will be encouraged to use the indoor exhibit space and outdoor display areas to create innovative and interactive learning experiences that help the public quickly and easily connect with the Greylock Glen Resort's key foci, including:

- Climate Change Challenges and Solutions with a Focus on Forests
- Natural Communities and Biodiversity at Greylock Glen
- Values of Land Conservation for People and Wildlife/Science in Action
- The History of the Northern Berkshires

In the Exhibit Plan that follows, we describe these different formats -- indoor and out -- that can be deployed by an Environmental Education Provider to create short-format, visual, and multisensory exhibits at Greylock Glen; a separate and more in-depth Education Plan explores the full range of environmental education programs that can be implemented at the Glen over time.

Plan Overview & Format

Nestled on the lower eastern slope of Mount Greylock, the Greylock Glen Resort offers an unparalleled site for recreation and education amid forests, fields, and wetlands. Accompanied by stunning views in all directions, the site offers a wide range of hiking and walking trails from accessible paths, like the broad carriage roads in Acadia National Park, to meandering woodland hiking trails, purpose-built mountain biking paths, and rugged routes to the spectacular Mt. Greylock summit. This unique location in the Town of Adams offers the perfect antidote to increasingly crowded outdoor recreation sites in other parts of the County with a one-of-a-kind launching point for passive and active recreation. Whether bird watching or geocaching, hiking or mountain biking, there is a place for everyone -- and every outdoor activity -- at the Glen!

To acclimate visitors to these diverse opportunities while using outdoor recreation as a gateway into meaningful environmental educational content, we have provided this Exhibit Plan to highlight conceptual ideas for how an Environmental Education Provider can seamlessly weave experiential learning into the Glen's enviable landscape.

Within this Exhibit Plan, we present multiple formats for presenting information to the public to make it engaging and dynamic for learners of all ages, learning styles (e.g., visual, auditory, sensory), abilities, and backgrounds.

Indoor exhibits can potentially take many forms, among them videos, which have wide appeal, hands-on displays involving natural and simulated environments, and games and challenges that test visitors' knowledge. Three brief videos have already been produced for Greylock Glen to showcase the site's unique environmental features: *Birds at Greylock Glen*, *Mysteries at Greylock Glen*, and *Climate Change*. We envision more videos like these being created to support other environmental themes and are confident they can be easily repurposed for additional uses such as the Greylock Glen website, social media, and the Adams Visitor Center.

Outdoors, we have explored the idea of creating mini exhibits called "Outposts." Outposts can be installed along the Glen Meadow Loop to invite visitors to take a closer look at Greylock Glen's distinctive features or suggest additional activities for visitors to investigate. These easy, self-guided interpretative Outposts will serve as the heart of activity near the Outdoor Center and encourage forays into shorter spur trails (e.g., within and adjacent to the Glen Meadow Loop) taking visitors to secluded spots for nature observation. Outposts will draw visitors into and beyond the Glen Meadow Loop while providing passive learning opportunities regardless of time of day or year.

Educational Exhibit Plan

This Exhibit Plan provides overarching and specific ideas for future indoor and outdoor exhibits that can be implemented at Greylock Glen. The first section describes primary and secondary concepts around which exhibits can be organized. The second section provides detailed descriptions and locations for nine Outposts stationed along the Glen Meadow Loop Trail. The third section provides descriptions of the three videos already created and suggestions for three additional videos that can be made in the future.

Primary Exhibit Concepts (Indoor and/or Outdoor)

Below are three key foci for the indoor exhibit space at Greylock Glen's Outdoor Center followed by descriptions of potential exhibits:

1. Climate Change Challenges and Solutions with a Focus on Forests:
 - a. Weather vs. Climate: This exhibit will offer an infographic that helps visitors understand the difference between weather (day-to-day) and climate (seasonal averages and long-range trends). Differentiating these two concepts is key to helping the public understand climate change.
 - b. Impacts of Climate Change in the Hoosac Valley and Mount Greylock: Content in this exhibit will incorporate results and findings of regional, sub-regional, and local projects conducted in Mohawk Trail Woodlands Partnership (MTWP) communities through a Municipal Vulnerability

Preparedness (MVP) grant conducted by the Town of Adams and partners at the Berkshire Regional Planning Commission (BRPC) and Franklin Regional Council of Governments (FRCOG). The exhibit will include ArcGIS StoryMaps covering topics such as culverts and watersheds, with the possibility of more maps being added that visitors can access by scrolling through a digital kiosk. This exhibit will address the question: How is climate change in northern Berkshire County impacting our region's plants, animals, and people and what can we do about it?

- c. Forests and Climate Change: This exhibit focuses on the importance of protecting the region's forests because of the special role trees play in capturing, storing, and sequestering human- and animal-generated carbon dioxide and methane, both of which contribute to climate change.

2. Natural Communities and Biodiversity at Greylock Glen:

- a. Inter-Connectivity of the Glen's Environmental Assets: Streams, ponds, wetlands, meadows, and forests are important natural communities that support a rich variety of wildlife and plants. In this exhibit, visitors explore the interdependence among these animal and plant features in a game- or challenge-like format.
- b. Trail Camera Secrets: An exhibit of photos and videos capturing the diverse wildlife at Greylock Glen collected through remote trail cameras and paired with narrative text that illuminate the fascinating world of the region's mammals, birds, and reptiles.
- c. Water and Aquatic Environments: Protecting the region's water quality and aquatic habitats deserves special attention because these communities are particularly vulnerable to climate change and human disturbance. In this exhibit, an indoor stream and pond-style aquarium will contrast life in warm-water and cold-water habitats and educate visitors about the importance of protecting both from over-use and climate change. This exhibit will include:
 - i. Simulated Pond: Aquatic plants, insects, crustaceans, and fish found in warm water ponds.
 - ii. Stream Cross-Section: Aquatic algae, insects, and fish found in cold water mountain streams and the importance of clean, cold water for survival.
 - iii. Hands-on Touch Tank: A warm-water aquarium filled with fish, crayfish, and macroinvertebrates for visitors to view up close.

3. Values of Land Conservation for People and Wildlife/Science in Action:

- a. Forest, Meadow, and Wetland Conservation Strategies: This exhibit explores the different strategies expert and community scientists use to protect important habitat for resident and migratory wildlife.

- b. **The Benefits of Land Conservation:** This exhibit explores how community land trusts and similar mechanisms can be used by communities to protect environmental benefits such as carbon sequestration, flood control, and erosion protection that provide a buffer against climate change.
- c. **Citizen Science:** A display of citizen science projects conducted on the Greylock Glen property, potentially in partnership with MCLA's Environmental Studies department. Future projects might include monitoring hawk and songbird migration; the lives of resident mammals; amphibian breeding; and countering invasive plants. Future programming will invite visitors to virtually or in-situ join scientists in the field to contribute observations through citizen science platforms such as eBird and iNaturalist.

Secondary Exhibit Concepts (Indoor and/or Outdoor)

Below are alternate or additional topics for exhibit topic consideration. These can be temporary exhibits located in indoor spaces in the resort's lobby or classrooms complemented by Outposts when appropriate:

1. **History of Northern Berkshire County:**
 - a. **Human History and Population Changes in Northern Berkshires:** From Native Americans to current inhabitants, human population in the Northern Berkshires has changed dramatically over time. This exhibit will help visitors visualize those changes as if time-travelling through the region's chronological eras.
 - b. **Mysteries of Greylock Glen:** Old stone walls, glacial erratic boulders, open meadows, human-made ponds, concrete structures, and rusting lift towers all offer glimpses into the fascinating and complex history of Greylock Glen's evolution in this exhibit. Corresponding Outposts will invite walkers/hikers to delve deeper into the history of Greylock Glen while exploring on their own.
2. **Respectful/Ethical Strategies for Nature Study and Recreation:**
 - a. ***Leave No Trace®* Ethics:** This exhibit will show visitors what a pack-in, pack-out policy means, why it exists, and how adhering to this policy can protect visitors and wildlife from harm. This exhibit can be further developed under the theme "mindful use and protection of sensitive ecosystems" (e.g., wetlands, streams) and species (e.g., nesting birds, rare plants).
 - b. **Appropriate Interactions with Wildlife:** The rationale for maintaining distance and not feeding wildlife will be covered in this exhibit.
 - c. **Trail Design, Maintenance and Use:** Visitors will learn in this exhibit why well-designed and maintained trails prevent and reduce soil erosion and ensure the long-term viability of woodland pathways for walkers/hikers, mountain bikers, and limited use of motorized vehicles (e.g., snowmobiles only for access to Mount Greylock Reservation).

Trailside Outposts on the Glen Meadow Loop Trail

Nine trailside locations were identified for future interpretive kiosks with each offering an opportunity to view a particular natural or human feature at Greylock Glen. At each Outpost, visitors can learn about plants and animals associated with the area and explore related conservation topics. All locations are numbered and identified on the map below.



1. Meadow Overlook – A location near the future Outdoor Center offers visitors the opportunity to view and move through meadow grasses and wildflowers and view associated insects and birds up close. An interpretive panel will highlight the importance of periodically mowed (or burned) grasslands and wildflower meadows in providing habitat for insect pollinators (which are essential to ecosystem health and human agriculture) and wildlife that depend on open terrain for hunting and feeding. Species to feature include bees, butterflies, bluebirds, foxes, woodchucks, etc. *Conservation Sidebar: Eliminating or reducing pesticide use is vital to protecting insect pollinators and all the species that depend on meadows.*
2. Pond Edge Fishing/Birding Area – A location near the gazebo and at the edge of the largest pond on the Glen Meadow Loop offers an excellent location for learning about the best ways to fish or explore ponds without accidentally harming wildlife. Species to feature include Canada Geese (a nearby nesting species), red-winged blackbirds, dragonflies (larvae and adults), damselflies, diving beetles, lily pads, and cattails. *Conservation Sidebar: Highlight how to keep critters safe while fishing or catching crayfish or searching for frogs by cleaning*

fishing lines, using barbless hooks, and keeping aquatic animals cool and wet at all times. This site will feature fishing-line disposal bins, a trash receptacle to encourage cleanup, and information on what the individual can do to fish responsibly.

3. Wetland Overlook – An existing boardwalk north of the largest pond on the Glen Meadow Loop offers an ideal location to construct a high-quality wetland loop trail. The trail could follow the existing boardwalk route, bisecting the transition zone between wetland and pond, with an observation platform providing a view of both aquatic ecosystems. The trail would connect to the existing pond shoreline trail and loop back around the gazebo. An interpretive panel will highlight the importance of wetland habitats as breeding sites, nurseries, and feeding areas for insects, fish, birds, and mammals. Species to feature include dragonflies, turtles, frogs, herons, etc. *Conservation Sidebar: Protecting wetlands is particularly important in a period of climate change since wetlands absorb and slow water runoff to help reduce flooding after severe storms.*
4. Mysteries of The Glen/Forest Change – A location along the western side of the Glen Meadow Loop near the old ski lift structure. An interpretive panel will highlight the various structures around Greylock Glen that are left over from multiple eras of development. Located near one of the many “mysterious structures,” the panel will explain it and other infrastructure hidden in the landscape. In addition, this panel will feature remnants like the golf course ponds, stone walls, pipes, and conduit, and signs of even older human activity. *Conservation Sidebar: Human activity can leave more subtle evidence than iron or concrete of impact on natural forms. Other examples of forest change over time can be viewed by noticing birch and poplar regeneration, aging mature trees, and tree species that change as formerly cleared meadows return to forest through a process called succession. Also of note, the reduction of sugar maples in the landscape due to climate change.*
5. Stream Overlook – A location at the northern end of the Glen Meadow Loop is identified for a spur that provides a view (and possible access) to a cold-water stream. An interpretive panel will focus on the complex food web from tree leaves and algae to insects, fish, and birds that constitute a healthy mountain stream. *Conservation Sidebar: Healthy streams must stay cold in summer or fish and insect life will perish. Protecting sensitive insects and fish populations requires maintaining tree cover and dense shade around streams to keep the water below 65F in summer, which will be increasingly difficult due to climate change.*
6. Poplar Grove Spur/Loop – A location at the northern end of Glen Meadow Loop near the end of Thiel Road will be the site of a forest spur/loop trail. An interpretive panel will highlight the dynamic processes of tree life cycles, nutrient cycling, succession, and change over time. Species to feature include aspen and poplar trees, columbine, sapsuckers, mushrooms, and bark beetles. *Conservation Sidebar: Learning to accept messiness in forests is important. Healthy forests have trees in all stages from seedlings sprouting to death and decomposition.*

7. Mount Greylock View – A location on the east side of the Glen Meadow Loop near the future environmental sculpture park offers the best vantage points for viewing the larger landscape. An interpretive panel will highlight large-scale conservation discussions such as ecosystem biodiversity, forest composition, connectivity/contiguity of the larger forested landscape, and forest carbon sequestration. Species to feature include older varieties such as maples, oaks, and hemlocks noting the visual differences among species and forest communities. *Conservation Sidebar: Focus on habitat fragmentation, climate resiliency, and carbon sequestration in New England forests. A “what can you do” section will discuss climate change and actions to help forest communities remain resilient for the future.* An optional trail extension could connect this meadow with the smaller pond and wetland loop, allowing visitors a shorter option with high-quality wildlife viewing opportunities.
8. Pond Exploration Station – A location near the south side of the smaller pond close to the future Outdoor Center offers easy shoreline access, allowing for pond side exploration of vegetation, invertebrates, fish, and waterbirds. An interpretive panel at this site will provide an opportunity to explore water stewardship and protection and discuss responsible behaviors when observing pond creatures. Natural features to highlight include warm-water fish, frogs, crayfish, aquatic insects, and pondside shrubbery that help hold the bank in place while providing habitat for birds and insects. *Conservation Sidebar: Highlight how to keep critters safe while catching crayfish or searching for frogs by keeping aquatic animals cool and wet.*
9. Peck’s Falls – The area near Peck’s Falls provides a view of a waterfall, pool, and rugged gorge. An interpretive panel will highlight characteristics studied by climatologists to assess mountain stream resiliency. Species of focus include the brook trout, aquatic macroinvertebrates, hemlock, and streamside mosses. *Conservation Sidebar: Waterfalls create deep pools at their base and raise the dissolved oxygen content of water, creating important summer refuge for cold-water species such as brook trout. Retaining trees and shrubs around streams helps keep water cool and prevents erosion and disturbance from disrupting the waterfall’s role as a cold-water refuge, which becomes ever-more important with a warming climate. This location could also focus on the “mysterious” stone wall structure below the dam that may have been part of a former mill at this site.*

Sample Videos for Exhibits and Website

Below are descriptions of six short videos that will introduce visitors to the wonders of Greylock Glen. Three have already been developed into two- to five-minute shorts to illustrate the type of media that can be used at the Outdoor Center and on the Greylock Glen website to invite locals and visitors to explore the property. These videos also serve as resources to introduce viewers to climate change discussions. The concluding section of the Exhibit Plan provides more detailed descriptions of the sample videos including:

- A summary of video content and corresponding materials that connect to broader Greylock Glen educational themes and, when possible, the Outdoor Center's net-zero construction.
 - Recommendations regarding exhibit text, artifacts, photographs, and/or ephemera as well as climate messaging that can accompany videos in the Outdoor Center's exhibit space.
1. Birding at Greylock Glen (sample video): Greylock Glen offers prime nesting and feeding habitat for a wide variety of resident and migratory birds. This video shares some of the best birding locations at Greylock Glen from the hillside of Mount Greylock to secretive streams, meadows, and wetlands. The video explores Greylock Glen through the eyes of birds and birdwatchers.
 2. Mysterious Structures at Greylock Glen (sample video): The forests and fields of Greylock Glen hold stories of the property's past. Visitors might stumble upon the rusting hulk of an old ski lift while hiking or biking on forest trails, towers which harken back to an earlier attempt to bring downhill skiing to Adams. Meadows and ponds along the Glen Meadow Loop Trail similarly provide glimpses of a proposed golf course project in the distant past that was fortunately abandoned.
 3. Climate Change in the Hoosac Valley (sample video): Black-capped chickadees and brook trout are two important species within the ecosystem of the Berkshires that face threats to their survival due to climate change. This video introduces viewers to the challenges facing these species and the actions viewers can take in their own lives to combat climate change.
 4. Nature-Based Climate Change Solutions (future video)" Forests and meadows are reservoirs of stored carbon captured by photosynthesis in the cells of living plants. Wetlands offer ecosystem services such as flood control, water filtration, and biodiversity retention. Collecting solar energy is a more sustainable way to power homes, businesses, and even electric vehicles, while minimizing our carbon footprint.
 5. Exploring Greylock Glen's Natural Communities (future video): Many vantage points along the Glen Meadow Loop Trail offer views of diverse natural communities. A mixture of forest, meadow, wetland, pond, and streams provide habitat to a variety of plants and wildlife, including nearly two dozen trees, 100 breeding birds, and dozens of mammals from tiny shrews to lumbering bears.
 6. Wildlife at the Glen (future video)" Greylock Glen is a fantastic place to view wildlife ranging from butterflies and dragonflies to black bears and porcupines. This video will explore the wide array of places to search for these secretive and charismatic animals and insects at the Glen.

Sample Videos & Potential Exhibit Connections

Birding at Greylock Glen: The wetlands, meadows, and forests at Greylock Glen create a beautiful patchwork of ecosystems and the perfect setting for birding. These diverse landscapes also facilitate plant and insect varieties, which together provide a critical energy source for New England songbirds as they make their long migration from the Northern to the Southern hemisphere and back; one reason birds chose the Glen for inter-continental stopovers. This web of ecosystems and species strengthens the resiliency of Greylock Glen's young forests, shrubs, and meadows, particularly as we enter an unknown future due to climate change.

With that as background, this video directs viewers to the key locations at Greylock Glen best suited to birdwatching, while celebrating the diverse ecosystem benefits the Glen provides. The video explores the Glen's unique bird life (e.g., the State-listed American Bittern), bird migration (the most exciting time for viewing) and breeding habitats. The video also explains why the Glen's forests, wetlands, and meadows -- along with the insects they attract -- are fundamental to bird survival and the region's climate resiliency.

We envision multiple exhibits being designed to correspond with this video. Birds are a charismatic group of animals that captivate audiences with their ability to fly and fill the air with song. Exhibits can range from photos and videos to indoor soundscapes. Beginning simply, a daily list of bird sightings can keep visitors engaged and curious, while an eBird kiosk can let visitors share bird sightings; eBird is the world's largest natural history citizen science project. eBird kiosks let people submit bird sightings from anywhere and promote the use of citizen science tools. Kiosks can also be customized to the Glen's unique features (e.g., ponds, trails, vista points, boardwalks, observation platforms, etc.), creating a virtual map of where to find birds at the Glen.

A birding exhibit can include other materials to enhance the visitor experience. Cut-out silhouettes can help people learn to identify birds by shape and be displayed on windows to provide the added benefit of preventing window strikes, turning the net-zero facility into a bird-friendly building as well. A bird feeding station and viewing platform located near the Outdoor Center can offer a bird-friendly zone for viewers. Bird mounts, feathers, nests, and eggs can be used to bring the bird world into audiences' hands. Bird song, available to listen to through headsets, played on request at interactive displays or at a bird "jukebox," can create an auditory surround sound to bring birding to life indoors and out.

Another exhibit that can capture multiple features at the Glen are small walk-in alcove stations, each featuring a unique ecosystem (e.g., forest, field, shrub, meadow, wetland) with visuals and specimens from that location available to explore. Within each alcove, recordings can let visitors sample soundscapes they can enjoy more fully outdoors and additional videos that can change on a rotating or seasonal basis.

Mysterious Structures of Greylock Glen: Human use of the Greylock Glen landscape exists in many forms, from the tall T-shaped pillars of an incomplete ski resort to long-forgotten, moss-covered rock features evidencing buildings once alive with life. Past uses can also be seen in physical artifacts such as the ski lift tower and cable house and in documentation of earlier proposals such as a golf course, which would have changed the Glen's landscape in ways that would have harmed the natural community.

Re-examining these human impacts and past uses naturally leads to discussion of the rationale behind the net-zero Outdoor Center that will soon reside on the site. The Outdoor Center exemplifies alternative infrastructure that *supports* natural community, provides environmental education, and leaves a minimal impact on the landscape and climate. Both the past mysterious structures and the evolution of thinking about the Glen's highest and best use today is what led to the creation of the Outdoor Center. That story will be told in a video that features some of the more notable historic human relics on the landscape around the Glen Meadow Loop and its trails. While the video primarily discusses large-scale outdoor features, supplemental materials such as historic photos can offer a timeline of activity and a longer-term perspective on human use and impact. At least one Outpost will correspond with this video, pointing out building remnants and discussing how the choices humans make – sustainable or destructive – impact our shared climate resiliency. Another exhibit, conveyed via a wall mural or similar large-scale graphic, can similarly show the relationship between forest succession (e.g., aspen and birch) and bird species.

Climate Change in the Hoosac Valley: The future of natural communities – plants, animals, fungi, protists, archaea, and bacteria – depends on the steps we take today to combat climate change locally and globally. This video introduces climate change's impacts to our regional environment, the threats it poses to biodiversity, and the mitigation strategies humans can take to reverse that trajectory. These impacts (e.g., increased frequency of extreme weather events, worsening human health) are discussed through the context of Greylock Glen with an additional focus on how the Greylock Glen's natural landscape can reduce negative climate impacts through carbon sequestration occurring through plant photosynthesis in the forests, grasslands, and shrubs around the property. By protecting these natural resources, they will continue to sequester carbon and prevent release into the atmosphere.

Drawing from this video, climate change themes can be woven into exhibit topics from birds and climate change to landscape use and protection. The net-zero Outdoor Center epitomizes positive choices that better the earth and community. Many of the net-zero features will become mini-exhibits within the Outdoor Center. Sources of building materials like stone and lumber will be noted with subtle descriptors around the building. Appliances, lighting, windows, and other net-zero design features can be woven into exhibits at the Outdoor Center as well.

This primary climate change exhibit will be presented in an interactive, innovative, and accessible manner. Often climate exhibits or discussions fail to communicate to lay viewers, but this one will be different by accurately and holistically communicating the threats, impacts, and mitigative actions surrounding climate change. Videos or dioramas of a changing landscape will illustrate this topic with exhibits that allow visitors to take part in modeling, landscape planning, and design. Birds provide a great resource for modeling and demonstrating climate change impacts. Citizen science puts people at the heart of research. Participating in citizen science or partnering with a higher education institution (e.g., MCLA or Williams College) to monitor species at Greylock Glen brings climate change to life across the Hoosac Valley broadly and Greylock Glen specifically.

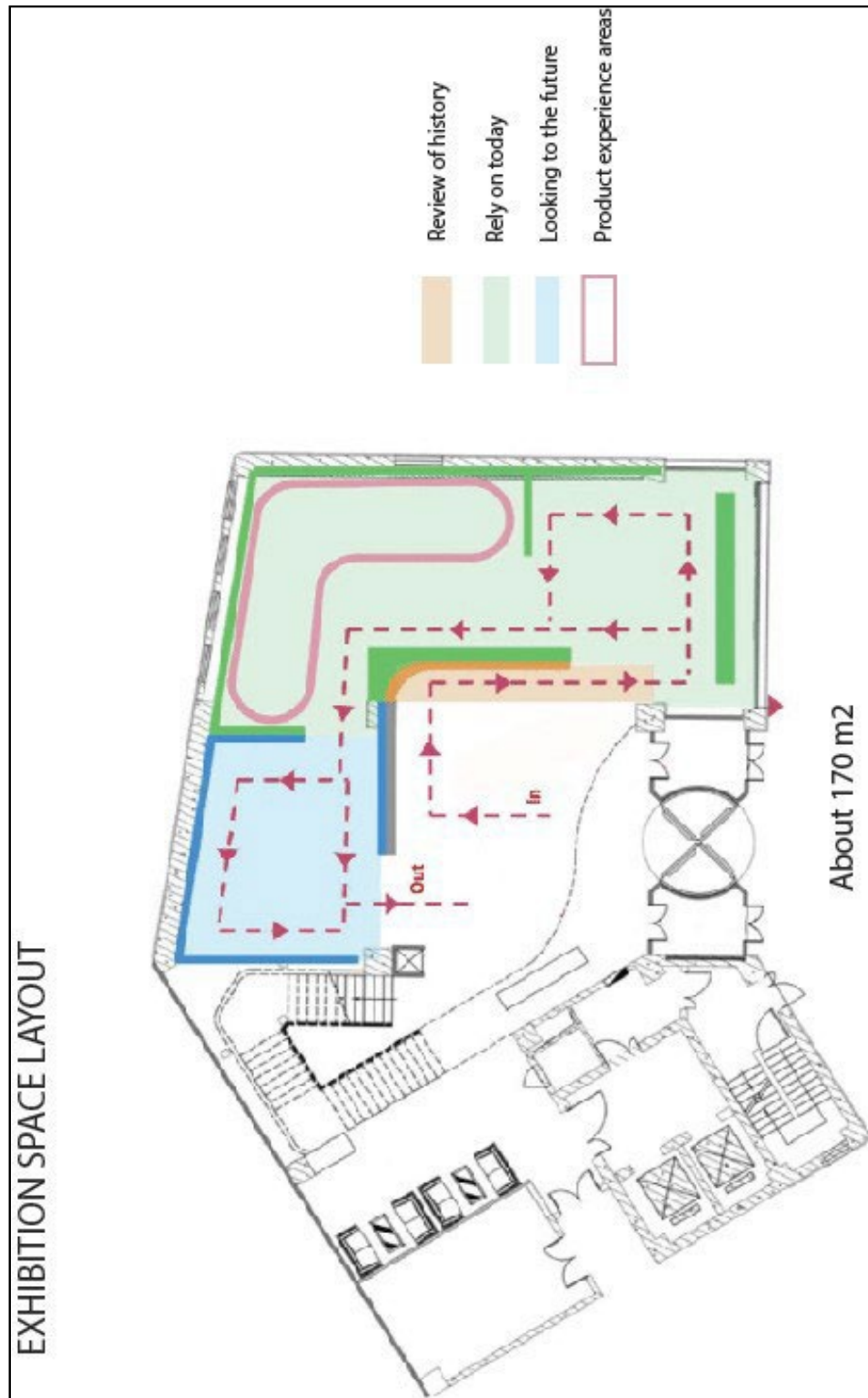
Information on actions visitors can take in their own lives to combat climate change should be a major exhibit feature. This can include relevant data on environmental policy, legislation, advocacy, and guidance for strategic action such as letter-writing, voting, and outreach. Climate change is not just an environmental issue but a public health crisis that requires urgent action. Designing exhibit elements focused on people and the future of communities will connect the dots between our own human survival and that of the animals, plants, and other life forms on which we collectively depend. Information on public health risks due to climate change is important to convey the unintended consequence of a warming planet. Showing actions people can take to combat climate change puts the future in our hands and helps dispel a sense of powerlessness. Water-bottle filling stations, recycling, reusable plastics, compostable materials, and other similar lifestyle behavior changes can be featured in mini exhibits so that people are inspired to care and act. These exhibits will not just educate but empower and inspire.

Conclusion

Exhibits provide opportunities for passive and interactive environmental education that can be incorporated into every stage of the Greylock Glen development plan. Indoor and Outdoor exhibits will together help fulfill on Greylock Glen's vision of providing climate change education to visitors of all ages and knowledge levels will be realized through these distinct exhibits, thereby increasing understanding of and appreciation for climate change impacts and what we can each do in our own lives to reverse course and, like the Glen itself, choose a path forward that enhances rather than destroys.

APPENDICES

Appendix 1: EXHIBIT SPACE LAYOUTS







Appendix 2: EXHIBIT SPACE CONCEPTUAL BUDGET

Item	Number	Rate/Price	Total	Sample Links
Outposts along Glen Meadow Loop	9	\$23,500.00	\$211,500.00	Estimate provided to Ray Gargan during Task 1 of MTWP 2021 research
Videos/Video Production	6	\$5,000.00	\$30,000.00	Includes rate for videographer/editor consultant to produce museum-quality videos.
Exhibit Room Painting per sf	1	\$1.75	\$5,800.00	Includes two coats on drywall based on 1,362/sf + \$3.50/lf of door + window frames
Wall Murals on Fabric (Soft-Stic) for Forest Sensory Immersion Entry (1,250/sf)	1	\$11.50	\$14,375.00	Wall Murals Soft-Stic Fabric: Full-color print on Phototex Opaque \$11.50/sf + Installation
Modular Display Walls	11	\$2,500.00	\$27,500.00	Estimate based on these websites: https://www.mbawalls.com/mila-wall.html + https://www.mbawalls.com/images/brochures/pdf/
Cut Vinyl Letters for Display / Est. @ 30/sf	30	\$12.00	\$360.00	Cut vinyl design, however a rough estimate for single color is \$11-13/sf. This is more accurate with large letters.
Museum Labels / Est. @ 50 labels	50	\$10.00	\$500.00	Museum labels on glass with text matte over-laminate on 2 mm PVC backing. Min. \$10 each or \$21/sf.
Digital/Online ArcGIS StoryMaps on Culverts + Watersheds Displayed on Digital Touch Screen or Kiosks* <i>Does not include fee for graphic designer to create StoryMaps</i>	4	\$3,000.00	\$12,000.00	https://www.google.com/search?q=digital+touch+screen+pricing&newwindow=1&sa=X&biw=1353&bih=587&tbm=shop&sxsrf=ALiCzsY5bEdqEmYXfSe4O8HWIvGwRQ_MaQ%3A1656331409136&ei=kZy5Yt-oB4eGptQPjaWfQAw&ved=0ahUKEwiftZWqy834AhUHg4kEHY3SB8UQ4dUDCAY&uact=5&oq=digital+touch+screen+pricing&gs_lcp=Cgtwcm9kdWN0cy1jYxADSgQIQRgBUNgEWNgEYIsZaAFwAHgAgAFeiAFekgEBMzgBAKABAcABAQ&sclicnt=products-cc
Additional StoryMaps @Digital Touch Screen or Kiosk in Main Exhibit Space	1	\$3,000.00	\$3,000.00	See above
Headphones— Individual Units Given to Visitors for Digital Displays or Audio Tours. Headphones covered with Protective Material	100	\$320.00	\$320.00	https://www.encoredataproductions.com/multi-packs/hamiltonbuhl-personal-economical-headphones-100-pack/
Disposable Headphone Covers- Sold in Packs of 600	1200	\$160.00	\$320.00	https://www.amazon.com/Non-Woven-Headphone-Disposable-Deodorizing-Headphones/dp/B07X2RLPC8/ref=asc_df_B07X2RLPC8/ or https://www.encoredataproductions.com/small-2.5-for-on-ear-headphones/hamilton-hygenxwr25-sanitary-headphone-covers-for-on-ear-headsets-600-pair-

Photos and Videos of Wildlife at Greylock Glen Changing with Season Projected on Walls. <i>Includes Fee for Photographer</i>	1	\$75/hr.	\$7,500.00	Estimated hours for photographer's time or purchase of photographs through Getty Images or similar image licensing service.
Trail Cameras	3	\$200.00	\$600.00	https://www.popularmechanics.com/adventure/outdoor-gear/g37679766/best-trail-cameras/
Drones	1	\$900.00	\$900.00	https://www.adorama.com/AD/Drones-and-Sport/Drones-and-Accessories/Drones?sel=Price-Range_-dollar-750-to-dollar-1000
Glass Exhibit Cases	10	\$2,600.00	\$26,000.00	https://www.modernofficefurniture.com/ispedica.html or https://www.modernofficefurniture.com/cedica.html
Museum Panels (3) 3' x 4' = 36 sf 5' x 8' = 40 sf 4' x 4' = 16 sf 5' x 4' = 20 sf Total = 112 sf	112	\$24.00	\$2,688.00	Full-color print with matte over-laminate on .5" Ultra-foam backing. Single sided- Min \$15 each or \$24/sf.
Exhibit Panels – 10 total / Graphic: 48" x 96" full color printed panel. Hp Opt / Matte over-laminate on 4 mm smooth coroplast priced at \$576.00 per panel/Fabricated Panel: 48" x 96" cart for graphics panels with casters priced at \$1,237.50 per unit	10	\$1,813.50	\$18,135.00	See quote provided by GVH Studio to Emily Lange on 6/28/21
Projector w/Built-In Speaker for Video Screening Room	1	\$3,500.00	\$3,500.00	https://www.audiogeneral.com/store/products/view/0601-3768 or https://www.optomausa.com/products/projectors
Aquarium - 4'11" x 5'2"	1	\$6,500.00	\$6,500.00	https://fishtanksdirect.com/fish-tanks/fish-tanks-by-shape/rectangle/5-feet-long-60/5-feet-glass-rectangle-aquariums/

Chairs for Video Screening Room	50	\$80.00	\$4,000.00	https://www.nationalbusinessfurniture.com/extreme-duty-polypropylene-stack-chair-51413 or https://www.instockchairs.com/mobile-stacking-guest-chair-c11770.html
Display Objects: Plant, Tree, and Leaf Samples, Insects, Live or Taxidermized Animals, etc.	20	\$500.00	\$10,000.00	Estimated at \$500 per display case for museum-quality items. Does not include labels, climate control protection, etc.
Citizen Science Interactive Display Area-Changing Exhibits - See Examples on Website. Estimated Price.	1	\$5,000.00	\$5,000.00	https://www.breezecreative.com/?glide=Cj0KCQIAzfuNBhCGARIsAD1nu--brBU4JP5-p-wLRrtarXqCvXkzyNihMFTvOPfpURXiqE03P8QAKlgaAl44EALw_wcB - Estimated rate not yet confirmed
TOTAL COST:			\$390,498.00	
Background Links: <ul style="list-style-type: none"> https://www.si.edu/content/opanda/docs/rpts2002/02.08.costsfundingexhibitions.final.pdf https://www.aam-us.org/category/financial-sustainability/ https://www.aam-us.org/programs/about-museums/museum-facts-data/ https://www.aam-us.org/2021/07/21/microclimates-a-greener-future-for-collection-care/ 				