

MILWAUKEE URBAN TREE HOUSE

Interpretive Plan

AMERICA'S OUTDOORS

*Forest Service • National Park Service
Natural Resources Conservation Service
US Fish & Wildlife Service
Bureau of Land Management*

Milwaukee, Wisconsin
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MILWAUKEE URBAN TREE HOUSE

Interpretive Plan



A Place for Connections



PURPOSE OF THIS PLAN

The purpose of this interpretive plan is to determine partners' management goals, priorities and messages, and targeted audiences for the Milwaukee Urban Tree House (MUTH) program. This plan provides recommendations on how to deliver those messages to the targeted audiences with the most effective interpretive products and programs, including, but not limited to, thematic landscape design, environmental/conservation education programming, and orientation.

The plan serves as a filter through which to determine priorities, frame decisions, and focus efforts. It also documents the process, the analysis, and provides the sideboards for those who will be implementing the plan (architects, landscape architects, graphic designers, educators, interpreters, artists, etc.).

The plan provides a framework for developing an integrated network of interpretive opportunities at the Milwaukee Urban Tree House site. It supplements previous efforts by providing specific interpretive themes; management goals and priorities; and design guidelines. It will guide the development of products and programs to meet these goals and objectives. It integrates the United States Department of Agriculture's Forest Service and Natural Resource Conservation Service, and the Department of Interior's Bureau of Land

Management, National Park Service and US Fish & Wildlife Service environmental education and partnership goals and messages with community partner goals and messages to create a highly coordinated and well thought-out interpretive experience.

Interpretation

A communication process that forges intellectual and emotional connections between the interests of the audience and the inherent meanings in the resource (National Association for Interpretation).

Environmental Education (EE)

Educational **activities** with organized groups (schools, scouts, community groups, etc.) or seminar participants that are designed to develop understanding, appreciation, and caring for the natural environment (National Park Service).

“Plans don't make things happen. People make things happen, and a good plan makes it easier for that to take place.”

-- Lisa Brochu, “Interpretive Planning: The 5-M Model for Successful Planning Projects”

This interpretive plan contains recommendations for interpretation (including interpretive environments, such as thematic landscape settings and structures) at the Milwaukee Urban Tree House site, and implementation priorities.

BENEFITS OF THE INTERPRETIVE PLAN

This planning process has provided a filter through which to evaluate effectiveness and make decisions about the Milwaukee Urban Tree House structure and other media. The planning process has de-personalized design decisions and has already helped re-direct partners down a path that better meets their goals.

In addition, this interpretive plan will help Milwaukee Urban Tree House stakeholders and staff:

America's Outdoors

- Effectively use interpretation and education to meet management goals and priorities;
- Address the goals and objectives of the partnering agencies' national and regional plans and strategies, such as "The Recreation Agenda," the Forest Service National "Strategic Plan," the Forest Service "Conservation Education Vision to Action Strategy", the Forest Service "Conservation Education Action Plan", the "BLM-Eastern States Priorities" and "FY2005 State Director Priorities", and the Integrated Forest Service Urban Outreach in the Northeast and Midwest Vision and Strategy."¹

- Develop the most cost-effective and sustainable communication methods;
- Provide consistency throughout the site;

A New Direction

I see now that we would have been much more effective going through the interpretive planning process earlier on. We thought we had our Urban Tree House planning and design all figured out. With the help of Interpretive Arts Unlimited!, we took a step back to make sure that what we were going to build fit our management goals, messages, and themes, and met the needs of our visitors and partners. The planning process turned us around and sent us in an entirely new direction—one that all involved are happy with. The work done with IAU! was invaluable.

- Jean Claassen
Public Affairs Specialist
Urban Tree House
Milwaukee, WI

¹ Details about how this plan meets Forest Service national strategies and priorities are provided in Appendix F.



ENVIRONMENTAL EDUCATORS

- Provide key outdoor education experiences for neighborhood children and school groups while maintaining open green space, promoting community and enhancing stewardship;

COMMUNITY STAKEHOLDERS

- Meet the obligations of their lease with the city of Milwaukee through continuous environmental education programming on the site;
- Develop consensus within the Lynden Hill Partnership on long-range vision for Interpretation and Environmental Education;
- Provide direction on means to handle governing decisions, maintenance, liability, etc.;
- Provide consistent direction when the Lynden Hill Partnership stakeholders and staff change; and
- Provide an increased presence on-site.

THE PLANNING PROCESS

Development of this Interpretive Plan began in October 2004 with facilitation by *Interpretive Arts Unlimited!*, a USDA Forest Service Enterprise Unit, and was completed in April 2005. Stakeholder meetings were conducted over a one-week period in October (A stakeholder participant list is included in Appendix A). Teams of internal federal managers (FS, BLM, and NPS) and external conservation/ environmental education specialists and community partners identified goals and values important to the

MUTH, and identified key messages.

The IAU! planning team used the information gathered from the stakeholders and federal management staff to develop statements of significance for the MUTH. The Statements of Significance were then melded with the goals identified to develop interpretive themes. Management, interpretive, and visitor experience goals and recommended delivery systems were developed with the input of federal management staff and stakeholder through meetings, interviews, field trips and research conducted in October and November.



At the beginning of the planning process, a request for bids for the tree house construction had already gone out to potential construction firms. The

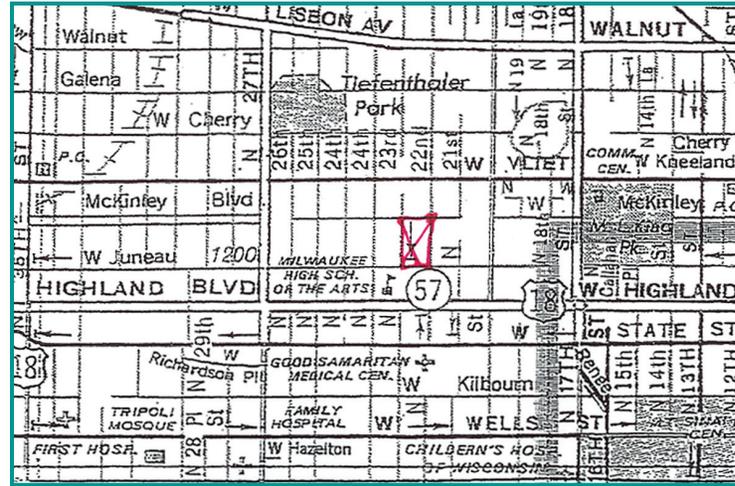
structure, as designed, was to be a large, partially roofed, wooden deck. The main feature was to be a 20-foot tall tower that people could climb.

Although much planning and forethought had gone into the design of the UTH structure by the partnership up to this point, during the interpretive planning process it was discovered that the large structure did not meet the primary target audience needs; did not have sufficient operation and maintenance resources available; and did not meet the goals of the MUTH program. In fact, the large structure overwhelmed the green space and defeated the goal to keep as much open green space as possible. The planning process guided partners to design facilities and products that better meet MUTH needs and goals.

INTRODUCTION TO THE SITE

When you arrive at Lynden Hill, you are struck by how open and grassy it is. You take a walk around the site, crossing through the open field—perfect for a game of tag. You are intrigued by the shadows and shade up on the hill, and decide to investigate. It feels so different under the trees—they are so tall and so many, you feel protected. And from up here, this place feels a lot bigger than 3 acres.

There's not another open, park-like green space like this for many blocks. The big brick buildings of the Milwaukee High School of the Arts border the site on



one side; the other three streets are lined with old houses, some under renovation.

You spot a group of kids headed across the open field down below. You watch them for a while as they take turns rolling down the steepest hill and then get up, stumbling with dizziness, and head back up the hill to do it all over again. You remember when you and your childhood friends used to like to do the same thing.

You wonder if this place has always been like this—an open space for the neighborhood to socialize, gather and play. You wonder what animals live here, and if any people have ever lived here. You try to imagine what the view would have been like before all these houses were built. It's like a breath of fresh air, a place for peace and quiet, surrounded by the hustle and bustle of the city. You take another deep



breath, make your way down a staircase back to street level, and walk towards home.

SITE BACKGROUND

The entire Milwaukee area was once a marshy environment—a mixture of open wetlands and woodlands. Wild rice and other foods were abundant here, and supported the native peoples who lived and traveled through here.

Since the mid-1850's, Lynden Hill has experienced a number of land developments. It supported one of early Milwaukee's most elaborate mansions and, later, a hospital for unwed mothers and geriatric patients. In 1977, the hospital closed its doors, and the buildings remained vacant until 1982, when the city sent in a demolition crew.

In 1993, community members rallied to protect Lynden Hill from the construction of a large housing development. They wanted to make sure it remained as open green space, a valuable asset to their urban way of life. Residents worked with the Midtown Neighborhood Association and in 2002 secured a lease from the city to keep it as open space, and promised to keep it well-maintained. Integral to the preservation of the lease is the commitment to provide ongoing environmental education programs on-site.

OVERVIEW OF THE FOREST SERVICE NATIONAL URBAN TREE HOUSE PROGRAM

The National Urban Tree House Program was conceived as a way to educate minority youth about the natural environment, and pique their interest in natural resources and potential careers. Program founder Barbara McDonald started the program as a volunteer with the Forest Service in 1989. Two years later, the first Urban Tree House—located in Atlanta, Georgia—was fully operational.

The goals of the national Urban Tree House program are:

- To cooperatively create, with interested partners, **an environment of mutual respect for and education about urban and rural natural resources**, which results in increased understanding, knowledge, and interest in these resources.
- To improve short- and long-range opportunities for creating a more culturally **diverse work force within natural resource professions** through involvement in co-creative natural resource education and recreation.
- To apply social science theories and methods in Urban Tree House settings and communities to **improve understanding of urban-natural resource interactions** and the impact of natural resource conservation education in local communities

Program elements include:

- **Partners as Teachers**

At the Urban Tree House, partners provide much of the natural resource conservation education conducted on-site. Unique in this respect from most other programs, the philosophy of partners as teachers insures a well-balanced and knowledgeable education program, provides direct contact between natural resource professionals and children, and promotes continued involvement by and interest from Urban Tree House partners.

- **Repeated Exposure**

The Urban Tree House is a community-based program, focused on the dynamics and activities of its local community partner. Children return to the Urban Tree House on a regular basis, encouraging interest and promoting a more comprehensive appreciation and understanding of natural resources.

- **Community Green Spaces**

Local common areas, including urban and local parks, urban forests, schools, and other local, green spaces are cooperatively identified as Urban Tree House locations. These spaces are available and accessible at any time, and provide a sense of focus and pride for the local community.

With a model of community-based development at its core, each of the five Urban Tree Houses around

the country is unique. In addition to the Atlanta and Milwaukee locations, Urban Tree Houses have been designated in Washington, D.C.; Salt Lake City, UT; and Portland, OR. The function of the space is emphasized over form. The shape and size of the structure count for much less than the activities that takes place within or on it. Some Urban Tree House sites have structures, others hardened landscapes, others yet remain as open green space. All, however, provide a tangible focal point of environmental education and stewardship for the community.

Management of the Urban Tree House sites around the country is accomplished through a variety of partnerships and lead agencies. Some sites are managed by FS, BLM, NPS, or other private or nonprofit organization (such as a university). Planning, constructing, implementing, and managing an Urban Tree House is best done by the partnership. All partners contribute

“Some people may think the Urban Tree House is a small stepping stone, but to us it’s a big stepping stone. For the first time we have something that can teach our children about forests and the environment.”

- Rev. James McLain,
Atlanta, GA



to funding and managing the program. This way, no one organization bears all of the costs, and visitors receive a varied environmental education program that is more reflective of the diversity of interests representing the environment and natural resources.

OVERVIEW OF THE MILWAUKEE URBAN TREE HOUSE PROGRAM

In 1997, a federal partnership called America's Outdoors (FS, BLM, and NPS) decided that developing an UTH site in Milwaukee would help them reach agency environmental education goals, and would help to improve environmental education programming in Milwaukee. The city was chosen to be a host of a national Forest Service program called the Urban Tree House. America's Outdoors staff solicited site proposals from the community. Of the six nominations that were submitted, Lynden Hill was chosen by a board of community leaders for the strong partnership, the neighborhood's potential for environmental education and community involvement in open space preservation. The open block in Milwaukee's near-west side was dedicated as the city's official Urban Tree House site in 1999.

MILWAUKEE URBAN TREE HOUSE PARTNERS

For the Milwaukee site, a unique combination of partners have come together to help make the local Urban Tree House program a success. Their

interests coalesce on a variety of levels. Some have a primary interest in maintaining the site purely as open space; others seek to enrich the neighborhood or provide a place for environmental education; still others are looking for an opportunity to improve awareness of federal land management policies and careers for urban youth. All, however, play an important role in the development, operation and maintenance of the site and program.

In 2000, a 5-year Memorandum of Understanding was signed by representatives of more than a dozen governmental and non-profit agencies with complementary interests in the operation of Lynden Hill and the Urban Tree House program.

Current partners include:

- America's Outdoors (US Department of the Interior – Bureau of Land Management, National Park Service, and US Fish and Wildlife Service; US Department of Agriculture – Forest Service, Natural Resource Conservation Service)
- Wisconsin Department of Natural Resources – Division of Forestry
- Midtown Neighborhood Association
- Neighborhood House's Outdoor and Environmental Education Program
- Boys & Girls Clubs of Greater Milwaukee
- Milwaukee High School of the Arts
- Friends of Lynden Hill Group

That MOU is set to expire in September 2005. The process of evaluating and reconfirming existing and exploring new partners'/stakeholders' interests and commitments is currently underway, with the understanding that fewer, yet more involved, partners will make management more efficient for all parties concerned. This interpretive plan will be useful in assessing how MUTH and potential partner goals overlap, and in developing a new MOU. The new MOU will be formed by stakeholders that are party to the lease, actively participate and manage the site, as well as provide the majority of the programming.

BENEFITS – INACTIVE PARTNERS

Partners that do not have the time or resources to be active in the management of the site may still benefit the program and site through increased exposure of the program, networking, and funding opportunities. Inactive, “paper” partners may benefit from association with the site and/or program as a means of furthering their own mission and/or goals.



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Our Visitors



ABOUT THE NEIGHBORHOOD

The UTH site lies within the boundaries of Milwaukee's Midtown Neighborhood. The Midtown area was once almost completely of German descent. After 30 years there is significant ethnic diversity. There is a mix of long-term homeowners and a high number of renters. The population is also diverse in terms of education and income level, as well as ethnicity. According to the 2000 Census, the area profile of the 14 Midtown Census tracts indicates:

The population is 19,604 – 8 percent lower than the 1990 Census. The neighborhood has a mixed ethnicity with 80 percent of the residents black; 10 percent white and 6 percent Hispanic and 4 percent Asian. Income is low. Most households earn less than \$20,000. Midtown's median family income is \$19,152 substantially lower than the county median of \$32,000. Attracted by recently constructed housing, the number of residents earning in excess of \$25,000 is 39 percent - a 62 percent increase. The number of persons earning more than \$50,000 has increased by 41 percent. While this represents an increase over the 1990 Census, Midtown remains one of the most economically challenged areas in Milwaukee.

There are 7,721 housing units. More than 80 percent are multi-family units. Owner-occupancy is low. Less than 20 percent of residents are owner-

occupants and the average unit occupancy is 3.22 persons per unit. Since the 1990 Census, Midtown experienced an 8 percent decline in number of households, but a significant number of households have lived here for decades. The neighborhood is dominated by younger residents. The median age is 22, but 45 percent of the population is under the age of 19—considerably higher than the City of Milwaukee as a whole. Family households make up 65 percent of the population and 42 percent are headed by females.

Educational attainment is problematic. Of residents older than 25, nearly half have not received a high school diploma—a likely contributor to the low median income. However, 29 percent have completed high school and 23 percent have attended college, graduated or received post-graduate education—a 15 percent increase since 1990.

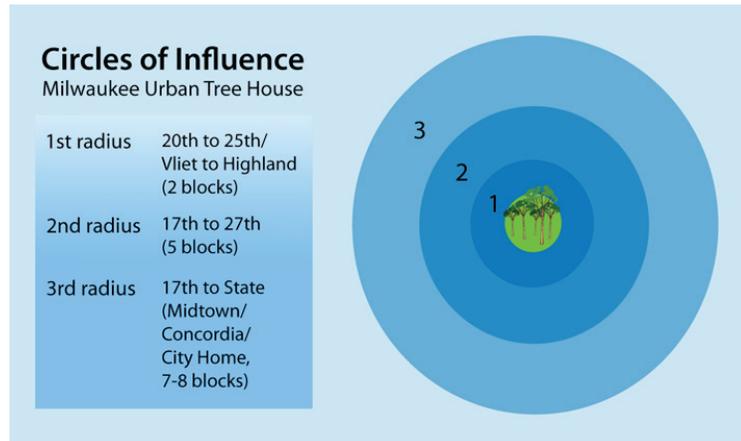
Neighborhood House, a community service agency that currently conducts the majority of environmental education programming at the MUTH, serves a large target area (I-94 to the South, I-43 to the east to I-41 to the west), encompassing and surrounding both the Urban Tree House site and the Midtown Neighborhood, including 15,647 families. Of the 2,600 program participants, African-Americans comprised 65 percent; White, 16 percent; Asian, 12 percent; Hispanic, 6 percent, and 1 percent other. Sixty-seven percent of NH's program

participants come from households with an annual income less than \$25,000, with 43 percent coming from households with total annual income less than \$12,000.

EXISTING VISITORS—PRIMARY USERS

- **Environmental Education**

The current primary visitors to Lynden Hill are students engaged in formal or organized environmental education activities. Most arrive via van or bus, and come from the area represented in the 2nd radius (see diagram below).



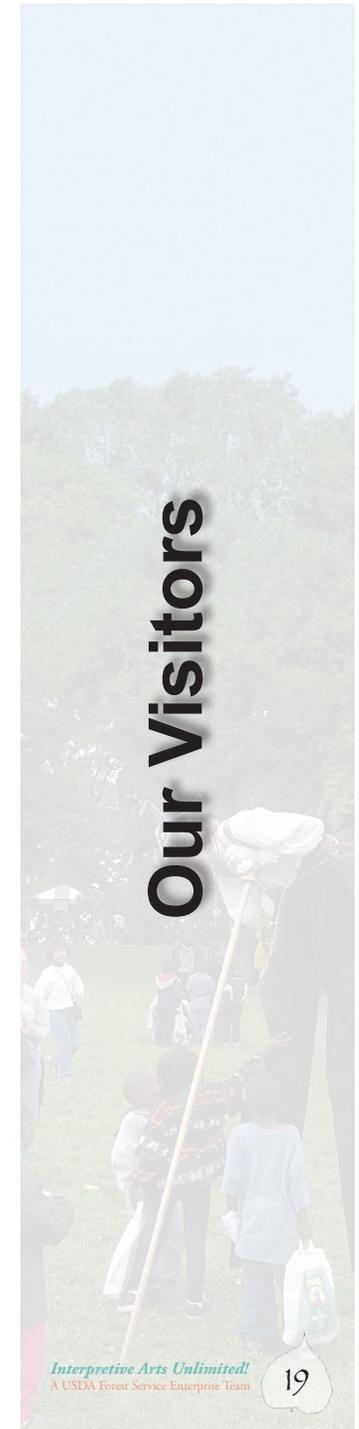
Environmental education students are repeat visitors. Although the average class size is 30-40, educators tend to divide the classes into smaller groups that rotate through the site, using different areas for different lessons and

activities. The classes are brought together at the beginning of the visit and again for lunch or other large group activity. During the school year, the average length of stay is 2.5 hours. In the summer, shorter visits are more common, averaging 1-2 hours in duration, with two to three visits to the site for each student.

Throughout the year, approximately 2,000 student visits occurred at Lynden Hill in organized groups (per Bradley Blaeser, Neighborhood House; and Jean Claassen, America's Outdoors). The majority of these student visits² occur through scheduled trips to the Hill with Neighborhood House educators.

Teacher turnover is high (~30 percent) in the schools Neighborhood House serves (according to Mike Ring, Neighborhood House), resulting in unfamiliarity with the community on the teachers' part and varying teaching modalities. Without a consistent community organization, the high turnover rate contributes to a lack in students' exposure to the environment and community green spaces, like Lynden Hill, from one year to the next—something that Neighborhood House is trying to address.

² More than two-thirds, but may become 100 percent



- **Organized Youth Groups**
Children in organized, non-school groups (e.g. Neighborhood House) are another primary user of the site. They are also repeat visitors. Although some environmental education activities occur during their use, the main focus is often recreational in nature. Most arrive by van or bus, and come from the area represented in the 2nd radius (see diagram above). Their average length of stay is one to two hours.

EXISTING VISITORS—SECONDARY USERS

- **Neighborhood Residents**
Secondary users include neighborhood residents out to walk their dog, and children in small play groups (without adult supervision). They come to enjoy the natural features and the open, park-like feeling. They arrive on foot, and come from the area represented in the 1st radius (see diagram above).

Adults and family groups from an even larger radius (see 3rd radius in diagram) have visited the site, primarily for organized social events sponsored an organization they are affiliated with, such as a church or social club.

TARGET AUDIENCES

The stakeholders³ have identified the audiences that they targeted for expansion by Lynden Hill partners.

In some instances, a particular audience may be an existing visitor and MUTH's primary target audience (e.g. environmental education students). They include:

CORE

- **EE Students (1st and 2nd radii)**
Classes want to have a nearby place to go for outdoor/environmental education lessons. The current network of schools in these radii could be expanded to include Milwaukee Science Academy, Urban Day, and Carter Charter School.
- **Neighbors (1st radius)**
Neighborhood families are interested in having a nearby place to relax, visit, and play with their children.

SECONDARY

The stakeholders have identified additional potential future audiences that could be cultivated by Lynden Hill partners. They include:

- **EE Students (3rd radius)**
Classes from more distant locations want to have a nearby place to go for outdoor/environmental education lessons. The current network of

³ "Stakeholders" is an inclusive term referring to both Lynden Hill partners and people who use the site, including neighbors.

schools participating could be expanded out to the 3rd radius.

- **Neighbors (3rd radius)**

Neighborhood families from a larger area might be interested in having a nearby place to relax, visit, and play with their children.

- **Social Groups (all)**

Churches, clubs, and other social groups are interested in a gathering place for events and meetings.

- **Youth Groups (all)**

Youth-serving groups such as scouts and Boys & Girls Club are interested in having a nearby place for outdoor recreation.

CORE PARTNERS' GOALS

The following are goals of the current core partners that are met and/or achieved by the Urban Tree House program:

- **Midtown Neighborhood Association**

Create positive change by:

- o Actively seeking the involvement of community stakeholders in community planning;
- o The implementation of programs and projects from housing, goods and services, to employment;

- o Working with all levels of government to design and implement neighborhood plans and projects;
- o Establishing and developing relationships with partners in and outside the Midtown neighborhood.

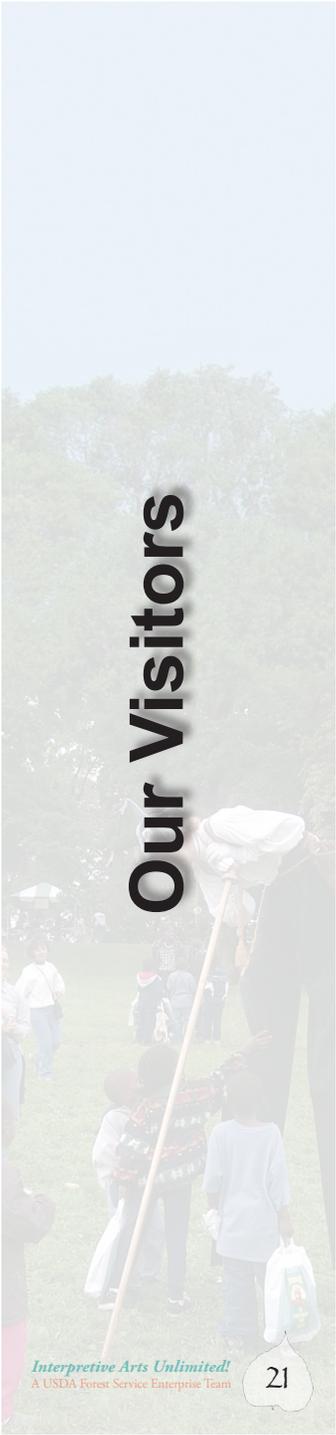
- **Neighborhood House**

Outdoor and EE Goals

- o To foster lifelong relationships between urban residents and the natural world;
- o Personal growth leading to environmentally responsible decisions;
- o Implement EE approaches that are driven by group work methodology and supported by curriculum;
- o Community collaborations as a foundation for success;
- o Integrate classroom and field learning experiences;
- o Promote positive risk-taking among program participants.

- **America's Outdoors**

- o Conservation Education: Demonstrate the value of natural resources, the role citizens have in the stewardship of those resources, and the opportunities for careers in the field of natural resources, and offer repeated hands-on outdoor experiences;
- o Help urban youth make connection between local green spaces and federal



Our Visitors



Our Visitors

- land units by first appreciating nature in their own backyard;
- o Conservation Assistance: Assist local groups in their effort to protect, preserve and/or enhance open space, trails, wetlands and rivers;
- o Recreation Information: Provide information on federal land recreation opportunities and basic outdoor ethics;
- o Offer opportunities to educate public on health and wellness benefits of outdoor recreation;
- o Reclaim vacant lots, plant trees, enhance streetscapes, and improve public spaces.

In addition to the partners represented in that MOU, community neighbors and their organization, called Friends of Lynden Hill, are also active supporters and partners in the maintenance and stewardship for the site. Their goals are to:

- o Ensure the long term preservation of Lynden Hill as an open green space;
- o Generate a larger support base for maintaining Lynden Hill as a green space;
- o Create a safe environment (through presence and design);
- o Build a sense of community in and around the Lynden Hill UTH site.

MILWAUKEE URBAN TREE HOUSE

Interpretive Plan



Goals and Themes



GOALS

Given the direction of the National Urban Tree House program and the interests of the sponsoring local organizations, the goals for the Milwaukee Urban Tree House are as follows:

Green Space

1. Ensure the long term preservation of Lynden Hill as an open green space; and
2. Maintain as much undeveloped (open/green) space as possible within Lynden Hill.

Community

1. Provide a community gathering space;
2. Foster a “sense of place” and a “sense of community” with local residents and partners;
3. Provide an area that functions as a focal point for the natural environment and environmental learning in the community;
4. Develop opportunities for natural resource and public art-related careers for neighborhood youth who participate in Urban Tree House programs;
5. Increase residents’ awareness of value and benefits (to them and the community) of open green space and increased outdoor activity; and
6. Promote sustainable “green” practices.

Environmental Education

1. Provide settings and resources for ongoing

- environmental education experiences to neighborhood children in their community;
2. Serve the same children repeatedly, so that the children’s environmental literacy and appreciation for natural resources can progress and interest in natural resource related careers increases;
3. Improve Milwaukee Public Schools students’ test scores in the natural sciences;
4. Meet Wisconsin State Education Standards;
5. Facilitate a land stewardship ethic; and
6. Help urban youth make intellectual and emotional connections between the value of nature in their own backyards and that of federal lands.

OBJECTIVES

Example Objective

The number of youth groups using the UTH site as a destination or for repeat visits will increase by 15 percent over the next year.

Objectives are more specific than goals and—to the extent possible—are measurable. They spell out what we want the visitors to feel, know, and do as a result of their visit to the site. Success of our efforts will be judged based on the accomplishment of these objectives. Objectives provide details about how goals will be accomplished.

Specific measurable objectives should be developed in the future as individual media are developed. See below for an example of a measurable objective.

Example Objective

The number of youth groups using the UTH site as a destination or for repeat visits will increase by 15 percent over the next year.

SIGNIFICANCE OF LYNDEN HILL AND THE MILWAUKEE URBAN TREE HOUSE

Statements of significance clearly define the most important things about the MUTH's resources and values. They serve as the foundation for developing primary interpretive themes and desirable visitor experiences. Participants in the federal, partner, and community meetings were asked to describe the one thing about the site that makes it special. These contributions were then combined with similar ones, and crafted into the following statements:

- **Every Tree Matters**

Lynden Hill is a microcosm, a place where the complexities of the natural world can be explored in the community's backyard. With only 86 on-site, every tree matters. The Urban Tree House is about everyday nature—a place where

you can get to know your natural and cultural communities, and where a strong and diverse community is built on more than just its people.
Developed into Sub-theme 1

- **Change Over Time**

From back then to right now, this is a place in constant transition. Nature and society continue to shift—from soil deposition and erosion, from lake to wetlands to city, from native cultures to the modern day mansion and hospital buildings, and back to open space again. Home to building up and tearing down, the Urban Tree House site is a place to watch change happen.

Developed into Sub-theme 2

- **People are Part of Nature**

The Urban Tree House is a symbol for people's commitment to save open green space in their neighborhood, and represents a tangible focal point for the interconnectedness of people and nature. People held on to and saved the site, and the site has held, and continues to hold, people through time.

Developed into Sub-theme 3

- **Green Spaces are Valuable – Both Small and Large, Local and Beyond**

Lynden Hill is a valuable green space—part of a bigger network of open, undeveloped natural areas, ranging in size from a backyard to a national park. People saved Lynden Hill, their



Goals and Themes

neighborhood green space, from development because they value open space for its natural, social, physical and spiritual renewal qualities. This green space is a valuable educational resource because it symbolizes that learning about nature is fun and playful, and can happen through leisure and structured activities. It is a community treasure connected to the larger national treasures of open, undeveloped public lands set aside by the national community.

Developed into Sub-theme 4

THEMATIC APPROACH

The Statements of Significance were melded with the Milwaukee Urban Tree House goals and developed into interpretive themes.

Themes are like the plot to the movie, or the moral of the story. They serve as the answer to the question, “So what? What’s the big deal?” The theme is the main idea we want to get across about a topic or a place, but we wouldn’t expect a visitor to be able to repeat it verbatim. Rather, it’s the gist of all communication with visitors.

CENTRAL INTERPRETIVE THEME

The Urban Tree House is a window to another world—a place where you can open your eyes and learn about the Nature that’s under your feet and over your head, and the community that surrounds you.

SUB-THEMES AND STORYLINES

1. Nature Can Be Seen Here Every Day

The Urban Tree House is a place where you can discover, learn, and appreciate the joys of everyday, ordinary nature, without ever having to leave your own neighborhood.

Storylines/Topics

1. **Insects** play an important role at Lynden Hill. They pollinate plants and provide food for songbirds and other wildlife. Some make their homes in the soil.
2. There’s **wildlife** in the city, too. Animals like the raccoon and skunk are just some of the visitors that might be seen in your backyard.
3. A great variety of **plants and trees** are present at Lynden Hill.
4. The animals, plants, and insects of Lynden Hill affect each other in many ways, and create a complex **web of life**.
5. **Daily and seasonal** changes are apparent at Lynden Hill. Notice the differences in appearances, temperatures, precipitation, and presence of species—between morning and afternoon, night and day, and summer and winter.

2. This Place Has a History

From geological formations to the people who have lived here, the history of this site is important to the neighborhood.

Storylines/Topics

1. The effects of **geological events**, including glaciers, can still be seen in and around Lynden Hill and greater Milwaukee.
2. People have lived in this area for hundreds, if not thousands, of years. **Archaeological** clues about how people utilized this area in the past may provide insights about how people can best use this land now and in the future.
3. This site was important to the people of Milwaukee for a variety of reasons. One of Milwaukee's early mayors built a **mansion** here, and another building later served as a **hospital** for unwed mothers, African Americans, and geriatric patients (underrepresented populations), and went under a number of management and ownership shifts. The mansion and hospital were demolished by the city in 1982.

3. You're Part of Something Bigger

At Lynden Hill, it's easy to see how you're related to something bigger – whether through community, or the “natural,” or physical, landscape.

Storylines/Topics

1. This open green space is one of many preserved in and around Milwaukee. Together, these open spaces form a chain of green – referred to as the **Emerald Necklace** – in the city.
2. The soil you stand upon at the Urban Tree House is part of the larger soil community of the Great Lakes region. Roots form massive underground networks.
3. **Water** at Lynden Hill can be seen in many forms – snow, rain, mist, fog, and dew. Water runs off the hill to the streets, and eventually drains to Lake Michigan. Everything that happens in this watershed affects the quality of the water we depend on to survive.
4. The **habitats** at Lynden Hill provide food, shelter, and other basic needs to a wide variety of life, including people.
5. At Lynden Hill, everything is **connected** to everything else. You can explore the ecosystem to see how you fit in.

Goals and Themes

4. Where Trees Are Planted, Communities Grow

People are attracted to Lynden Hill for the many benefits of a forested, open green space.

Storylines/Topics

1. The people in this neighborhood came together to **preserve Lynden Hill** as open green space.
2. **Forests** – like the one seen at Lynden Hill, and other public lands such as **national forests**, which are many times bigger – provide many **benefits** to people, animals, and other life.
3. **Open green spaces are beneficial** to people in many ways, and provide a balance of spiritual recharge, social opportunities, and supply for the economy.
4. **Community** is made up of cultural and natural elements.
5. Lynden Hill, and greater Milwaukee, is filled with biological and cultural **diversity**.

MILWAUKEE URBAN TREE HOUSE

Interpretive Plan



Existing Conditions

MILWAUKEE URBAN TREE HOUSE

- **Site**
Site developments include a native prairie sign and prairie plantings, a bulletin board, and two staircases.
- **Programs**
EE—A variety of environmental education programs – utilizing the Conservation Education Interns activities and the NH/AO curriculum – are presented. An extensive resource library is available through America’s Outdoors, including education “trunks” (located at Neighborhood House), CD’s and videos.
Special Events—Gatherings for special events include Public Lands Day, the Spring Fling, Farmer’s Market, church socials, Garden Club meetings, etc.
- **Web Site**
There is no web site exclusively for the Milwaukee Urban Tree House program. The America’s Outdoors web site (<http://www.americasoutdoors.gov/index.asp>) mentions the Milwaukee Urban Tree House program on its “Conservation” page, and refers people to the National UTH web site, and the Washington, D.C., UTH web site.

SURROUNDING AREA

Included here are Nature Centers or other facilities in and around Milwaukee with an environmental education focus. All of the following appear to have similar interests with differing audiences. MUTH’s audience is very focused—solely in the neighborhood. The following sites may be an extended experience for MUTH visitors, not competition. It could be very beneficial to explore the sharing of resources and training opportunities, as well as a referral service for teachers.

- **Urban Ecology Center**
This major facility exhibits sustainable building practices and serves as the home base for its environmental education program in the neighborhood schools. Located adjacent to Riverside Park on Milwaukee’s east side, this facility aims to serve the population within a 2 mile radius. The mission of the UEC is to: provide environmental education programs to neighborhood schools; promote environmental awareness in the community; preserve and enhance the natural resources of Riverside Park; and protect the Milwaukee River. The UEC has expressed a desire to develop satellite centers around Milwaukee. The UEC is located approximately 4 miles from the MUTH.

- **Havenwoods Environmental Awareness Center**

Havenwoods State Forest is a 237-acre green space in the city of Milwaukee. It features open grasslands, young woods, and a seasonal wetland area. The mission of Havenwoods is to promote awareness of interdependence, provide recreation and learning opportunities, and maintain and improve the quality of natural habitat in an urban environment. Havenwoods is located approximately 6.5 miles from the MUTH.

- **Hawthorn Glen Outdoor Education Center**

This facility is located on 25 acres, and offers hiking trails through woods, prairie, and wetland. Naturalists lead school groups, and adult and youth group programs. Hawthorn Glen serves more than 12,000 students each year.

- **Riveredge Nature Center**

Located on 350 acres forty minutes outside of Milwaukee in Newburg, WI, this sanctuary and environmental education facility offers opportunities for hiking, cross country skiing, nature programs and special events. This facility is located approximately 30 miles from the MUTH, and serves more than 10,000 elementary and middle school students annually.

- **Wehr Nature Center**

Located in Franklin, WI, this facility is a “living laboratory” designed to foster environmental

awareness. Located approximately 13.5 miles from the MUTH, it offers trails through a variety of habitats and a 20-acre lake. Since 1974, the Nature Center, in cooperation with the University of Wisconsin Extension, has operated as the Milwaukee County Park System’s source of environmental education. It serves more than 90,000 people annually—from pre-school children to senior citizens. The Center’s outreach program offers interpretive field trips throughout the county parks.

- **Schlitz Audobon Nature Center**

Located 15 minutes north of downtown Milwaukee along the shore of Lake Michigan, this facility provides public recreational and environmental education programs for children and adults of all ages, offering seven miles of trails and beach. This facility is located approximately 11 miles from the MUTH, and serves approximately 37,000 school children annually.

- **Forestry Awareness Center (DNR)**

This facility has not yet been built, but will focus on forestry and the history of forestry in WI.

- **Hawthorne Glen Nature Center**

This 23-acre nature center is run by the City of Milwaukee’s Recreation Department, and serves Milwaukee Public Schools and local families.



Existing Conditions

- **Neighborhood House Nature Center**
Located 50 minutes from Milwaukee, this 90-acre parcel of land has miles of trails, forest and prairie, and is used as the last trip in a series of EE trips with Milwaukee Public Schools to foster the urban/rural link. It is also used for seasonal programs like “Maple Sugarin’,” as well as gardening and camping.

NATIONAL URBAN TREE HOUSE PROGRAM

- **Locations**
 1. Atlanta, GA—This UTH is run by the Oakhurst Community Gardens, a nonprofit organization that coordinates summer programs. The Georgia Forestry Commission provides fiscal oversight and funding for the program. The UTH took shape as a large wooden deck built in the shape of the United States, and a raised gazebo built under the tree canopy.
 2. Washington, D.C.—This UTH is on NPS land and run by the BLM. Interns from the Student Conservation Association staff the summer program. Other partners include the Navy, Fish and Wildlife Service, and the District of Columbia. This UTH also took shape as a map of the United States. However, this map was done with colored surfacing, with large boulders interspersed throughout.
 3. Salt Lake City, UT—This public green

space is managed by the University of Utah, at the Bennion Center. This UTH took form as a roofed structure over a kiva-style pit, with two additional thematic areas overlooking the river and a marshy area.

4. Portland, OR—This location, run by an “Urban Institute,” does not have a structure. Rather, this partnership decided to focus its efforts on creating trails, settings, and gardens.

- **Web Site** - <http://www.fs.fed.us/research/rvur/urban/urbantreehouse/uthouse.htm>
This web site previously contained information on the concept of the Urban Tree House program, with instructions, or guidelines, for individuals who are interested in creating an UTH in their community. This web site currently does not exist.

ISSUES, CHALLENGES & OPPORTUNITIES

- **Open Space**
In order to keep Lynden Hill as a green space and insure the lease, consistent and on-going environmental education programming is necessary.
- **Partnerships**
In order for Lynden Hill and the Urban Tree House program to be functional, utilized, and supported, partners must feel heard

and their needs must be addressed. As the project has evolved, some partners have dropped out and others have assumed an increased amount of responsibility. The new MOU should be formed by stakeholders that collectively hold the lease, actively participate and manage the site, and provide the majority of the programming.

- **Governing Body**

No formal decision-making body currently exists. Decisions are often made by those present at the monthly meeting—a source of frustration for all.

- **Safety**

In order for Lynden Hill and the Urban Tree House site to be used, maintained and supported by neighborhood residents, safety of the site is a high priority. Residents are concerned by vagrant/homeless individuals' use of the site.

- **Liability**

As official leaseholder, Midtown Neighborhood Association must manage liability. Decisions about construction and events must consider their liability policies.

- **Operation & Maintenance**

There is no current operation & maintenance plan or agreement in place that addresses

staffing, site presence, vandalism repair, or the provision of water and restrooms. Funding is provided to support the program as it becomes available. This causes a sense of uncertainty for the stakeholders.

- **Visitors**

Neighborhood visitors are not sure how to use the site, and the number of these visitors is not currently very high. To overcome this, it is important to generate interest and use by making visitors feel welcome and comfortable. Neighborhood users should also be made aware that the site is available for use for organized events, with permission from MTNA, and provided contact information to do so.

- **“Urban Tree House”**

It is difficult to learn what an Urban Tree House is, or is supposed to be. Partners currently have a difficult time putting an explanation into words.

- **Native Species**

The number and health of trees on the property is an asset to the site as a natural environment. Active management of the tree population is needed to preserve and promote the integrity of the tree community as well-adapted, native species. A Forestry Management Plan for the site has been developed.



Existing Conditions

MILWAUKEE URBAN TREE HOUSE

Interpretive Plan



Recommendations

PARTNERSHIPS – EXPANDING AND DEFINING

A formal decision-making process and forum, such as a board of directors, for the Urban Tree House and Lynden Hill does not currently exist. Members of the Lynden Hill Partnership meet once a month to discuss ideas and actions for further development of the Urban Tree House structure and Lynden Hill as a whole, but it is not clear exactly how proposals are submitted, how decisions are made, or who is ultimately responsible for management of the site.

While the federal partnership America's Outdoors (BLM, FS, USFWS, NRCS, and NPS) was instrumental in the start-up of the Milwaukee Urban Tree House program and continues to provide oversight and some funding, it relies on some formal and some verbal agreements with Midtown Neighborhood Association to perpetuate its interests. Midtown Neighborhood Association, as a non-profit organization, is more readily available to solicit funding and make capital improvements on non-federal land than America's Outdoors, comprised of federal entities. Midtown Neighborhood Association legally controls the structural outcome and operation of the site (including liability).

- **Board of Directors**
“Elect” a small (4 -7), dedicated board of directors. Establish a formal decision-making process and forum for the filtering of ideas.

Give proportional voting rights to active and non-active partners. Establish how decisions will be made and acted upon.

- **Core Partners**
Identify and acknowledge the three main partners that are integral to the operation and perpetuation of the site and program. These include America's Outdoors, Neighborhood House, Midtown Neighborhood Association, and Lynden Hill Friends Group. Further redefine the roles and responsibilities of each partner, being sure to address all aspects of the operation and maintenance of the site and program.
- **Educational Partners**
Explore involving new partners whose mission, goals, and activities directly support or complement the goals of the Milwaukee Urban Tree House program, such as through delivery of environmental education activities. Educational entities emphasizing public art should also be explored as partners.

The three groups above could be one and the same, with the core partners and the “committed” educational partners making up the majority of the board members. Where a complex web of too many partners and/or stakeholders may tend towards inefficiency and inaction, a broad network

ensures high community awareness and funding potential. However, this may be a case where “less is more.” The Core partners in the MOU should be responsible for developing the roles and responsibilities of the board.

Potential new partners include:

- Milwaukee Institute of Art & Design
- Urban Ecology Center
- Existing nature centers and other purveyors of environmental education in and around Milwaukee
- Carter Charter School
- Milwaukee Academy of Science

PRESENTING THE OPTIONS—THE VISITOR EXPERIENCE MODEL

The following recommendations and media options are presented through the Visitor Experience Model, which considers all aspects of the visitor’s experience.

Consider, for example, how an environmental education student might experience the site.

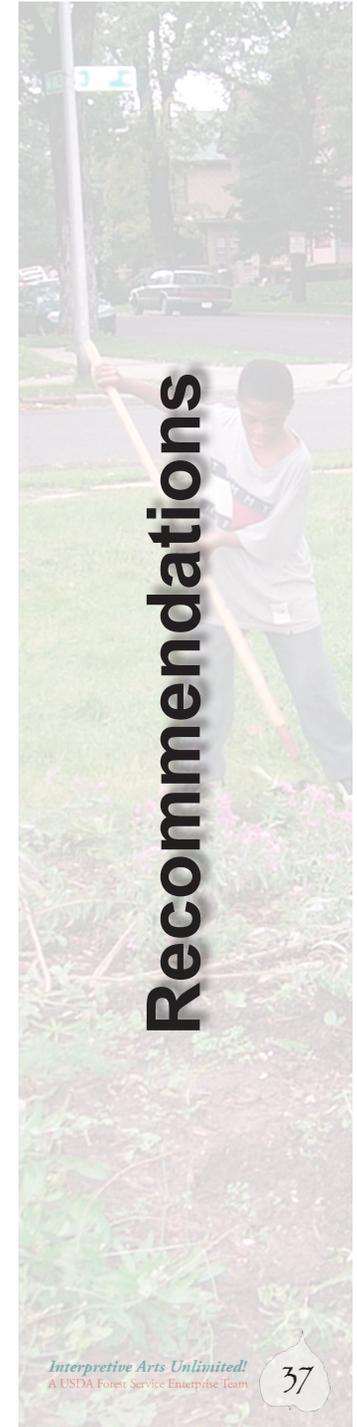
Let’s assume the teacher made the **decision** for the student and her classmates to visit the MUTH, and made arrangements to meet an environmental educator/guide on site.

The student arrives at the site in a school bus,



and passes through the arched **entry**. A variety of media—including stepping stones, bench backs, and a personal guide—**communicate the messages** about the site. The student then passes through the **exit**, and goes back to her school.

Later, she decides it’d be great to make a commitment to follow through on what she learned there by volunteering. She talks to her family about the site, and they decide to go with her.



MEDIA OPTIONS—FACILITIES, PRODUCTS AND PROGRAMS DESIRED CONDITIONS

Decision—Before Visitors Come to the Site (Phase 1)

- **Teachers** will learn about the MUTH and the Neighborhood House curriculum (correlated to state learning standards!) and resources available in one or more of the following ways:
 - o In-Service Workshop on the Neighborhood House EE program offerings
 - o Flyer/Brochure
 - o Word-of-Mouth
 - o Milwaukee Public Schools Announcement/Newsletter
 - o MUTH web site*
- **Neighbors** will learn about the MUTH as a place to walk their dog, or play with their friends, in one or more of the following ways:
 - o Children who have visited the site with their class
 - o Word-of-Mouth
 - o Special Events
 - o Walking by and feeling invited in by a welcoming entrance
- **Families** will learn about the MUTH as a place to have a picnic, volunteer, or relax with their family, in one or more of the following ways:
 - o Children who have visited the site with

their class

- o Word-of-Mouth
- o Special Events
- o Local news articles
- o Driving by
- o MUTH web site*

* A MUTH website should be developed that includes the following information:

- o Catalog of environmental education library and curriculum (with a strong connection to the existing America's Outdoors web site);
- o Community/Special events;
- o Stakeholders (emphasizing government/local partnership, and how to do this in your area);
- o About the MUTH (success story for marketing);
- o Opportunities (volunteer, learn more, etc—commitment phase).
- o Lessons learned in planning for an Urban Tree House

On-site – Communication of Message (Phase 2 & 3)

SITE DESIGN PARAMETERS

The following are parameters for how to work with development of the overall site. They are based on discussions from all of the stakeholder groups, and provide the side boards for any implementation of the interpretive themes.

Green Space

- Structures should be designed to blend into and complement the natural environment. They will not dominate the view or landscape. All design needs to **be to scale** with this small, three-acre green landscape.
- Messages will be delivered in ways that have minimal impact on the view of this natural area. **Messages will be incorporated into** the landscape design, benches, surfacing, structures, etc. No standard “interpretive signs’ are planned for.

Partnership

- All site design and development, from structures to landscape settings, must address and **support MUTH goals**, themes and messages, and provide locations for programs that address MUTH goals. All architecture and landscape design, and program development (including EE

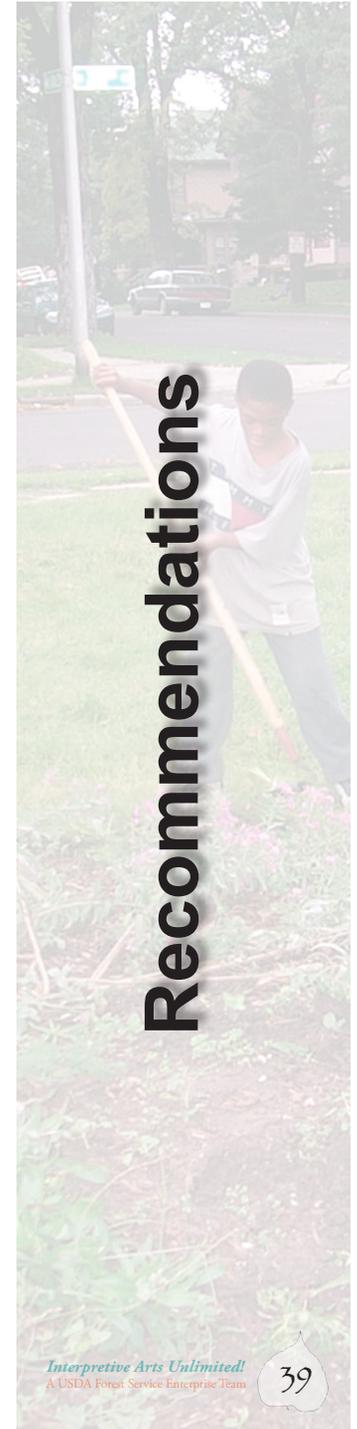
curriculum) will meet MUTH goals and themes.

- A “photo” opportunity, or focal point of the site, should be available to partners and stakeholders. This would serve as the place to hang the “banner” sign for the site.

Visitors

- The site design needs to create environments where people **feel welcome**, and create a **transition** between the city and open space. Some landscape design and development would help people feel safer and would help them to know how they can use the site. Yet, development must be balanced with the goal of **preserving as much open space as possible**.
- Meet primary and secondary **audience needs**.
 - EE – **Environmental educators** need at least two small, informal learning environments for environmental learning, with a group size of 20 students and 2 adults. Each of these learning environments/settings/hubs should be far enough apart to reduce the distraction between two learning groups. Educators also need one larger staging area with a capacity of 40 (students plus teachers). Some shelter from the rain (possibly temporary) is also desirable.

Recommendations



- o Neighbors –These learning environments would also serve the **casual visitors**, in groups of 1-10, as thematic settings. The larger staging area would function as an amphitheater for community and special events.
- Meet **ADA and safety concerns**.
- Have **open visibility** for safety

Comprehensive Site Design

- An **overall landscape design plan** that includes the locations and type of structures and thematic/landscape settings, etc. is needed. It should also include locations for future public art and sculpture. It should be developed in a way that implementation can be phased in.
- The possibilities for site development **range** from the large scale tree house that was planned for at the beginning of the interpretive planning process, to remaining with the existing site conditions.
- The level of development needs to correlate with the level of site presence, capital investment, and maintenance capability. As development increases, not only does capital investment increase, the level of funding needed for site presence and operation and maintenance also increases. The site should only be **developed to the level that the operation and maintenance resources can**

support. The amount of presence needed at the site will vary with the media selected.

- A **diversity of design** creates the diversity of habitats and niches that are integral to environmental education. There is less diversity with one large structure. A mix of smaller structures and landscape design creates the most opportunity for biological diversity, and creates a diversity of “environments,” or settings for both formal education groups and the casual visitor. Utilize a diversity index when evaluating design options.
- Design the space for **flexibility/transformability**.
- Utilize **materials** that are attractive, vandal resistant, low maintenance, and cost effective, such as:
 - Composites
 - Concrete
 - Steel
 - Wood⁴

⁴ Wood does not meet the above parameters as well, due to higher maintenance and vandalism issues. If sufficient operations and maintenance resources are present, then wood might be a viable construction material option.

One Vision for the Urban Tree House

You feel like you are stepping into a grove of trees. The structure's vertical supports mimic tree trunks with a variety of diameters. The "roof" feels like a tree canopy with open steel mesh and large metal leaves. The roof is one and a half stories tall (15 feet), and blends into the surrounding tree canopy. (The structure is taller than wide.) A ramp leads to a small low platform with railings that "appear" to be constructed with scavenged old building materials that kids found in the neighborhood (e.g. painted plywood, a variety of lumber scraps, tree branches, etc.). The platform looks like a tree house built by kids. Neighborhood children helped select the building materials and design this area. The floor is concrete, stained with the browns and greens of a forest floor. Images and words about squirrels, birds and insects are "hidden" throughout the structure.

SITE DESIGN - DESIRED CONDITIONS

The option below presents a spectrum of development, and meets the most goals, and includes recommendations for structures, settings, seating, and surfacing. Each development, whether tree house or landscape setting, will address a theme. The entrances will introduce the themes.

One tree house (may be an actual structure or a designed landscape) would serve as a focal point. In addition, three settings would accommodate both large groups (in the form of one amphitheater), and small groups (in the form of two thematic settings with seating and surfacing), with formal and informal make-up. For example, a group of neighborhood kids should feel just as comfortable using the site as a group of students as part of a lesson.

Recommendations

Entry

Landscape design will be used to create entrances to Lynden Hill—one primary entrance and two secondary entrances (the stairs). These entrances should be designed to also introduce the interpretive themes. For example, on one of the stair entrances, artistic step risers may have images and words that visually convey that the community saved this special place. The other stair entrance could use the same techniques to show benefits of green spaces. The main entrance may use an artistic (non-climbable) arch. The entry could be a creatively landscaped set of trees and boulders that draw you in and welcome you to the site, and that also visually conveys the theme.

Themes Addressed:

Sub-theme 4 - Where Trees Are Planted, Communities Grow (Storylines 1, 5 - Lynden Hill preservation, Community) (see pages 16-17)

Goals addressed:

Community (2, 3, 5, 6 - Sense of place, Focal point, Value and benefits, Connections)
EE (1 - Settings and resources) (see page 11)

Target Audience: All

Tree House

If a structure is built, it should be one small structure located on top of the hill among the trees. It should offer the feeling of being in a tree house and feel like it is for kids. A site “banner” sign, should be mounted

on the tree house.

- The structure should accommodate 20 students.
- The structure could be roofed, partially roofed, or best yet, intermittently roofed.
- Vertical supports could reflect tree trunks (can be as simple as concrete that is painted, concrete that is cast to look like bark, or round steel beams).
- Roof could reflect tree canopy (may be painted like leaves, or be open metal mesh with large metal leaves, etc.). A partial “open” roof will increase the feeling of a tree canopy and reduce vagrancy.
- Part, or all, of the structure could represent a tree house constructed by children.

Themes addressed:

Sub-theme1 - Nature Can Be Seen Here Every Day (Storylines 1, 2, 3, 5 - Insects, Wildlife, Plants and trees, Daily and seasonal changes) (see pages 16-17)

Goals addressed:

Community (1, 2, 3, 4, 6 - Gathering space, Sense of place, Focal point, Careers, Green practices)
EE (1 - Settings and resources) (see page 11)

Target Audience: All

Amphitheater

- The amphitheater acts as a connector/ transition from wooded hilltop to open, flat “grassland” at the bottom.
- The amphitheater functions as staging area for formal school groups (40 students at a time) and as setting for community events like musical performances.
- The “natural grass bowl” is used as is, or is sculpted for further enhancement, for casual seating.
- The staging area is flush with the ground (this is a sledding and rolling hill too!).

It is designed to accommodate and support transportable stage set-up. It is designed to be attractive and functional when the site is not used as a stage (transformable/multi-functional/ multi-audience).

Themes addressed:

Central theme - The Urban Tree House is a window to another world—a place where you can open your eyes and learn about the Nature that’s under your feet and you’re your head, and the community that surrounds you (see pages 16-17).

Goals addressed:

Green space (1, 2 - Long term preservation, Maintain open green space)

Community (1, 2, 3, 4 - Gathering space,

Sense of place, Focal point, Careers)
EE (1, 2 - Settings and resources, Serve same children) (see page 11)

Target Audience: All

Recommendations

Thematic Landscape Settings

- Landscape design will be used to create settings where organized groups of up to 20 people (mostly 15 students and two adults) can gather. These settings should also feel comfortable/to scale for just a couple of visitors. Two settings, in addition to the amphitheater, are optimal:

1. One wooded hilltop setting

This setting is on top of the hill among the trees and should be less developed than the prairie setting (below). This setting should “nestle” into the trees and not be visible from a distance. It should be a pleasant surprise—a discovery.

Themes addressed:

Sub-theme 3 - You're Part of Something Bigger (see pages 16-17)

Goals addressed:

Community (1, 2, 3, 5, 6 - Gathering space, Sense of place, Focal point, Value and benefits, Green practices)
EE (1 - Settings and resources) (see page 11)

Target Audience: All

2. One prairie setting

This setting is closer to the streets and is flatter, making access easier; therefore,

this setting would be more developed. Low earthen walls could reflect the geologic past and earthen “effigy” mounds could reflect the archaeological history. A sculpture or other public art may represent the recent history of the site as a hospital or mansion.

Themes addressed:

Sub-theme 2 - This Place Has a History (see pages 16-17)

Goals addressed:

Community (1, 2, 3, 5, 6 - Gathering space, Sense of place, Focal point, Value and benefits)
EE (1 - Settings and resources) (see page 11)

Target Audience: All

All Settings

- Vary in complexity of development.
 - Settings may include: plantings, low earthen walls and mounds, boulders and low rock walls, benches, surfacing, public art/sculpture. Settings will be thematic and will address MUTH goals.
- Settings may vary from very limited development—defined only by a low earthen wall, or more developed with thematic benches and stained concrete (or other) surfacing. A variety of levels of development on the site will increase visual interest, diversity and variety (visual variety and diverse habitats for study).
- Settings should be in each of the Lynden Hills environments—on the hilltop, at the transition zone, and in the open grassy area.
- A variety of habitats, environments and opportunities should be created. Landscape design, thematic settings and structures will all add to this variety.
- Settings will be designed to present one or more MUTH themes and goals.

Seating with messages

- Seating could be: low earthen walls with varying heights, like glacier moraines (or snake-like) that disappear into the ground; or “scattered” boulders or low rock walls.
- Thematic Bench backs could be

made of steel, phenolic resin panels, concrete, etc. Bench backs and arm rests can be made as interpretive panels using the high pressure laminate (phenolic resin) sign material.

Surfacing of trails and settings with messages embedded

- Concrete staining/stamps
- Tiles/pavers – metal (bronze), flagstone, mosaic, or concrete (should be low maintenance and vandal resistant)
- Embedded objects
- Replaceable stepping stones (needs to be slip-resistant)
- Grass

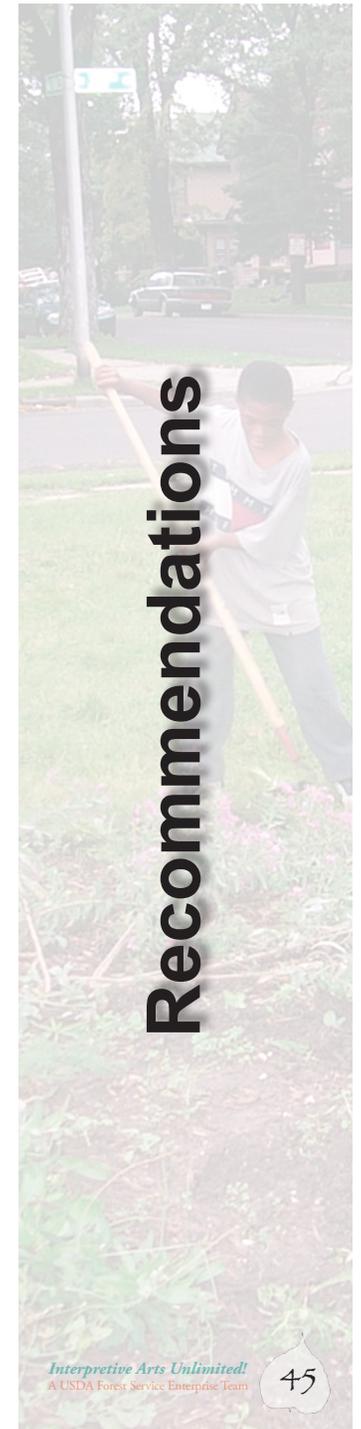
Landforms and plantings as messages

- Clumps and/or circles of tall native prairie grasses (for the open grassy area) can illustrate natural ecology.
- Earthen walls that mimic glacier moraines could introduce the geology story, while earthen walls shaped as effigy mounds could introduce the pre-history story.

Maintenance Structures as messages

- Composting toilets, composting bins, and garbage cans can be designed to help tell stories and “deliver messages.”

Recommendations



Design Elements

- The repeated use (but not over-use) of thematic visual icons will help to establish consistency and recognition for the MUTH. Suggestions for thematic icons include:
 - o Tree house
 - o Recycle symbol (universal)
 - o Trees
 - o Houses
 - o Sun
 - o Concentric circles (tree rings, expanding your awareness, ripples, universal symbol)
 - o Vocabulary words from Neighborhood House curriculum

Themes addressed:

Sub-theme 1 - Nature Can Be Seen Here Every Day (Storylines 3, 5 - Plants and trees, Daily and seasonal changes)
Sub-theme 2 - This Place Has a History (Storylines 2, 3 - Archaeological clues, Mansion and hospital)
Sub-theme 3 - You're Part of Something Bigger (Storylines 1 - Emerald necklace) (see pages 16-17)

Goals addressed:

Community (2, 6 - Sense of place, Green practices) (see page 11)

Target Audience: All

Other Options

The following options meet many of the goals, but reflect varying levels of presence and operation and maintenance resources. All of the options below build off of the preferred option presented above.

Option 2—No structures

This option may be the most appropriate with minimal site presence. The risk of vandalism will be low, as will maintenance needs.

Themes addressed:

Central theme - The Urban Tree House is a window to another world—a place where you can open your eyes and learn about the Nature that's under your feet and over your head, and the community that surrounds you (see pages 16-17).

Goals addressed:

Green space (2 - Maintain open green space)
Community (1, 2, 3, 4, 5, 6 - Gathering space, Sense of place, Focal point, Careers, Value and benefits, Green practices)
EE (1 - Settings and resources) (see page 11)

Target Audience: All

Option 3—One additional structure (in addition to the tree house and settings)

If another structure is desired, it should be a low-key, open roofed structure located in the open, grassy area. This structure may be associated with or replace the thematic prairie setting, or may be separate. It should introduce a theme or meet goals identified for the MUTH. A natural fit would be for it to represent a shelter used by native people who lived here. It could also “tell the site’s history.” Ideally, it would have an open, artistic roof that could be covered when needed. The structure could be designed so that organized groups could add a custom tarp (or sail) roof—available to be checked out through one of the partners.

Themes addressed:

Sub-theme 1 - Nature Can Be Seen Here Every Day (Storylines 1, 2, 3, 5 - Insects, Wildlife, Plants and trees, Daily and seasonal changes)

Sub-theme 2 - This Place Has a History (Storylines 1 - Geological events)

Sub-theme 3 - You’re Part of Something Bigger (Storylines 2, 3, 4, 5 - Soil, Water, Habitats, and Interconnectedness)

Sub-theme 4 - Where Trees Are Planted, Communities Grow (Storylines 4, 5 - Community, Diversity) (see pages 16-17)

Goals addressed:

Community (1, 2, 3, 4, 6 - Gathering space, Sense of place, Focal point, Careers, Green practices)
EE (1 - Settings and resources) (see page 11)

Target Audience: All

Option 4—Additional thematic settings

This option would add additional thematic settings through the site.

Themes addressed:

Sub-theme 1 - Nature Can Be Seen Here Every Day (Storylines 1, 2, 3, 5 - Insects, Wildlife, Plants and trees, Daily and seasonal changes)

Sub-theme 2 - This Place Has a History (Storylines 1 - Geological events)

Sub-theme 3 - You’re Part of Something Bigger (Storylines 2, 3, 4, 5 - Soil, Water, Habitats, and Interconnectedness)

Sub-theme 4 - Where Trees Are Planted, Communities Grow (Storylines 4, 5 - Community, Diversity) (see pages 16-17)

Goals addressed:

Community (1, 2, 3, 4, 6 - Gathering space, Sense of place, Focal point, Careers, Green practices)
EE (1 - Settings and resources) (see page 11)

Target Audience: All



Recommendations

PROGRAMS - DESIRED CONDITIONS

Programs are an important aspect to message delivery on-site, and will be designed to meet MUTH goals. Programs can address the themes and goals that are difficult to address with structures or landscaping, and brings the personal, community-building element to the forefront.

When designing programs, it is important to keep the interests of the target audience in mind, and best of all, be interactive!

Community Programs

In addition to the existing offerings, a great variety of programs will be available to the community. The Milwaukee School of Arts could present evening concerts, plays, performances and art exhibits. Guest speakers, demonstrations and presentations that meet MUTH goals would be scheduled regularly, and would be of interest to the visitors.

Themes addressed:

TBD (see pages 16-17)

Goals addressed:

Community (1, 2, 3, 4, 5, 6 - Gathering space, Sense of place, Focal point, Careers, Values and benefits, Connections) (see page 11)

Target Audience: All

Environmental Education

Curriculum and tools would be available through the web site, and by contacting Neighborhood House.

Themes addressed:

TBD (see pages 16-17)

Goals addressed:

Green space (1 - Long term preservation)
Community (2, 3, 4 - Sense of place, Focal point, Careers)
EE (1, 2, 3, 4, 5 - Settings and resources, Serve same children, Improve MPS scores, Meet state standards, Stewardship ethic)
(see page 11)

Target Audience: All

Exit (Phase 4)

Visitors exit the same way they entered—via the primary entrance or either of the two stairways. Thematic visual icons, images, and words remind them of the interpretive themes (see Design Elements on page 28) and encourage them to come back. Upcoming event schedules are posted so that visitors will be encouraged to participate.

Themes addressed:

Sub-theme 4 - Where Trees Are Planted, Communities Grow (Storylines 1, 3 - Lynden Hill preservation, Benefits of open green spaces)
(see pages 16-17)

Goals addressed:

Community (3, 5 - Focal point, Value and benefits) (see page 11)

Target Audience: All

Commitment (Phase 5)

Visitors would find out ways they can volunteer, gain other outdoor experiences, and become involved in the ongoing operation and maintenance of the site on the MUTH web site*, or on signboards located at entrance/exit points.

Themes Addressed:

Sub-theme 4 - Where Trees Are Planted, Communities Grow (Storylines 1, 3 - Lynden Hill preservation, Benefits of open green spaces) (see pages 16-17)

Goals addressed:

Green space (1 - Long term preservation) Community (1, 3, 4, 5, 6 - Gathering space, Focal point, Careers, Value and benefits, Green practices)

EE (1, 5 - Settings and resources, Stewardship ethic) (see page 11)

Target Audience: All

* The MUTH web site would include the following information:

- o Catalog of environmental education library and curriculum (with a strong connection to the existing America’s Outdoors web site);

- o Community/Special events;
- o Stakeholders (emphasizing government/local partnership, and how to do this in your area);
- o About the MUTH (success story for marketing);
- o Opportunities (volunteer, learn more, etc— commitment phase).

OPTIMAL STAFFING/VOLUNTEER ORGANIZATION – DESIRED CONDITIONS

A staffing plan would include the number and type of “staff” positions.

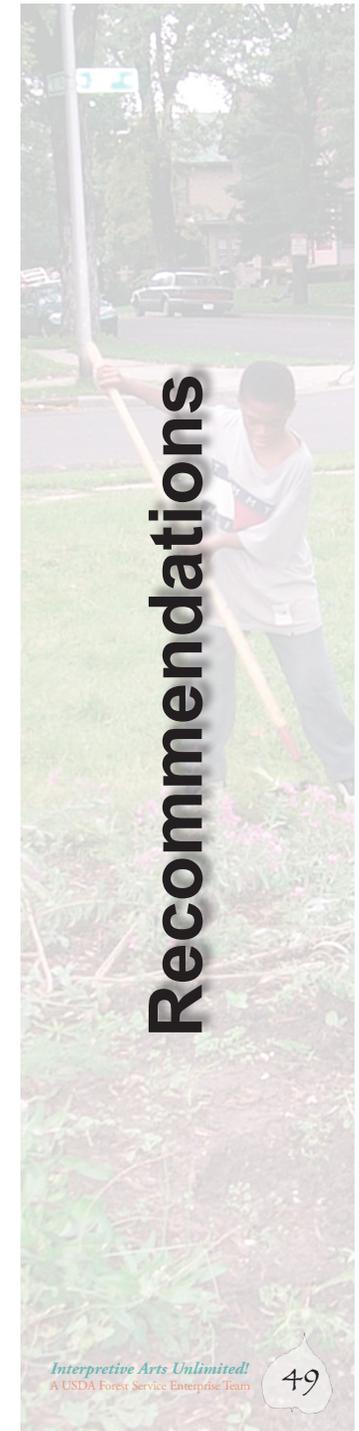
Program Oversight Level

- **Board of Directors**—The board of directors is the decision-making body. They support the MUTH by soliciting appropriate new partnerships and funding sources. See page ____ for related recommendations.
- **Executive Director/Agency Liaison**—This person coordinates the overall program, including partnership management. Recommend that this be a paid position.
Minimal level—one unpaid position
Optimal level—one paid position

Program/Site Level

Minimal level—one year-round, part-time person, not on-site
Optimal level—two year-round, full-time people, on-site

- **Education Specialist**
 - o Develop outreach materials



- o announcing the availability of the program
 - o Schedule and coordinate site visits
 - o Conduct teacher in-services
 - o Deliver education programs on site
 - o Revise and update education curricula
 - **Site Coordinator**
 - o **Coordinate Volunteers**
 - Recruit, train and supervise volunteers and interns
 - o **Coordinate Maintenance**
 - Coordinate site operations and maintenance
 - **Volunteers**
 - o Education and community program delivery
- Minimal level—3-5
Optimal level—15-20

IMPLEMENTATION

How to use this plan to get the work done Landscape and Architectural Designs

Address MUTH's goals, themes and messages with all development—from structures to thematic landscape settings, to public art. Provide and review this plan with contractors. Determine how their designs will meet MUTH goals and messages. Use this plan as a “filter.”

In early 2005, the MUTH partners began the landscape and architectural design and construction phase. Drawings, based on the recommendations in this plan, were developed by Voss Jorgensen Schueler Company, Inc., and Zimmerman Design Group and appear in Appendix I.

Art Students

MUTH representatives work with the school counselors, administrators, and teachers to determine which school goals can be met with the MUTH. Some of the school's goals are most likely to prepare students for future business in the arts. Emphasize how MUTH can promote career development in public arts careers, as well as natural science careers.

MUTH representatives present the MUTH program to teachers who are interested in having their students be involved at the site. Their students would submit proposals and develop public art at the MUTH. This plan is used to develop student art proposal packets that include MUTH goals, themes, messages, targeted audience, and media parameters. Using the interpretive plan's goals, messages and themes, and parameters, art students then submit professional proposals for both permanent and temporary public art installations (as defined by the MUTH board of directors).

Milwaukee School of Arts students will learn real world skills about working with public art installations, from presenting a proposal and portfolio, to addressing parameters such as safety, vandal resistance, maintenance needs and cost effectiveness.

Local Artists and Art Museums

Also make a call for local artist proposals that meet MUTH goals, messages, and targeted audiences. They should work with the construction team.

Programs

Volunteers, interpreters and educators use the plan to develop their programs to meet the MUTH goals and themes. Future partners use the plan to determine if their goals overlap with MUTH. Funding sources can be sought whose goals overlap with MUTH.

Phasing Options with Timeline

The following schedule is based on priorities for implementation and the realistic time it takes to accomplish given each project's duration, scale, and funding.

Phase I: 6 months to 1 year

- Establish **governing body**
- **Revise MOU**/redefine partner roles and responsibilities
- Begin expanding **outreach to schools**
- Develop **Web site**

- Finalize **site design**
- **Site construction**
- **Interpretive media:** development
- Establish **landscape plantings**
- **EE curriculum & teacher training:** continue programs for students & teachers
- Installation of **interpretive media** (main components)

Phase II: 1 to 3 years

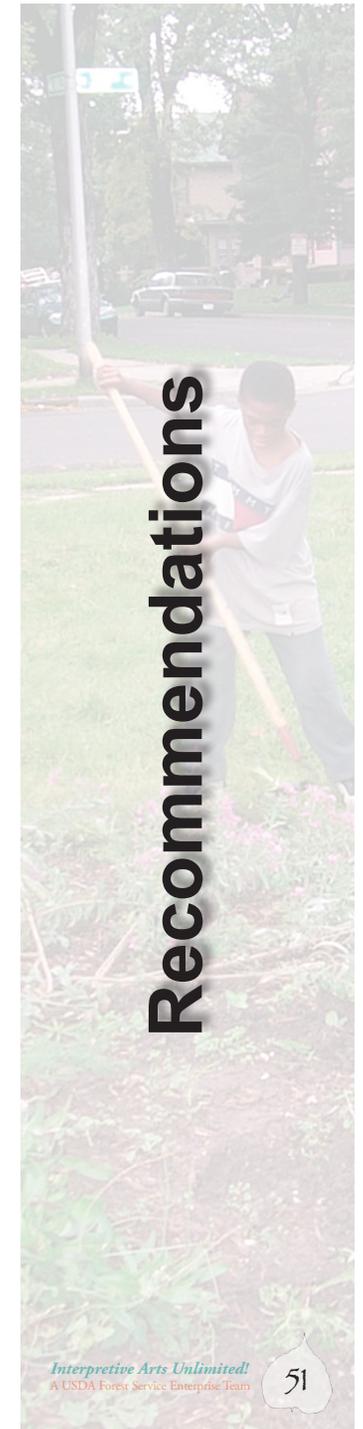
- **Partnerships:** Continue to develop/expand
- **Pursue funding opportunities:** establish adjacent work site/offices
- **Staff:** Recruit and hire Program Coordinator, Volunteer Coordinator
- **Interpretive media:** installation of additional art components
- Update **environmental education curriculum and tools**
- **EE curriculum & teacher training:** update programs for students & teachers
- **Outreach to community:** advertise venue availability, volunteer opportunities

Phase III: 3 to 5 years

- Review and update **Interpretive Plan**
- **EE curriculum & teacher training:** implement programs for students & teachers

Phase IV: 5 to 10 years

- **Expand personal services**, off-site and on-site interpretation and environmental education.



Strategies for Implementation

Interpretive development is largely dependent on the resources available, and particularly at the Urban Tree House site, the need for such development.

This interpretive plan can serve as a budgeting and prioritization tool for site managers and stakeholders. The products and programs recommended in this plan can be reviewed periodically and selection of projects made with consideration of the following criteria for prioritization:

1. How well does this project meet established goals as stated in this plan?
2. What targeted audience does the project reach? Does the benefit justify the expense?
3. How well will the project function under existing parameters?
4. Is the project coordinated with timetables for other development?
5. What are funding and cost considerations?
6. What is the sensitivity of the site or resource?
7. Does visitor behavior need to be modified in any way? Do you want to increase, or decrease visitation?
8. Will this project increase or strengthen partnerships?

MILWAUKEE URBAN TREE HOUSE

Interpretive Plan



Appendices



APPENDIX A: MEASURES OF SUCCESS

(Recommendations for monitoring and evaluation to determine whether objectives are being met)

Purpose of Evaluation and Monitoring

While evaluation of any program is a critical factor to its ongoing success, this component is often overlooked. Evaluation of exhibits, programs or any interpretive/educational endeavor provides a venue for restructuring effective program planning and opportunity for growth.

The evaluation and monitoring information for existing efforts could support proposals and/or decisions to expand offerings and the request for additional staffing to do so.

To successfully implement the planned interpretive program, the interpretive/EE team should include three main variables when developing the monitoring and evaluation stage:

1. **Monitoring and implementation of the plan:** determines if the plan is implemented on schedule and possible reasons for deviation from the schedule;
2. **Evaluation of the effectiveness of the interpretive program:** determines if the planned programs meet the desired outcomes or objectives specified in the plan. Evaluation methods could include visitor questionnaires, formal/informal interviews, observations of visitor behavior, and suggestion boxes); and
3. **Plan revision:** should be undertaken if those who conduct the monitoring and evaluation process detect weaknesses in the interpretive program and/or certain objectives are

not being met. The revision should suggest corrective measures that will improve the interpretive plan.

The results of site-specific evaluation and monitoring programs should be documented. Based on this information, any need for further action will be determined and recommended. These recommendations could include:

- no action needed (goals and objectives are achieved);
- modifications should be implemented (goals and objectives are not being achieved);
- project should be discontinued (for example, the project is no longer significant);
- plan should be updated to include additional goals and objectives.

The methods suggested below provide several alternatives for evaluation and can be adapted to use for diverse projects and programs. They can be done informally on an annual basis.

Monitoring and Assessment of Interpretive Programs and Media

The important thing to keep in mind when evaluating is that the assessment of behavior, mood, or response to environmental conditions should be as unobtrusive as possible. The following are some methods employed by environmental psychologists to study and record visitors' responses to stimuli.

Unobtrusive Methods

The goal is to apply measurement techniques that address the questions you are asking, while disturbing the setting as little as possible, allowing you to study real people in real environments.

The disadvantage of using this technique is that it may entail a perceived invasion of privacy and a lack of informed consent on the visitor's part.

1. **Observational Techniques:** The best way to do this is to watch others and report their behavior and interactions in the setting by using recorded narratives, video cameras, photography, or written notes. The advantage to this method is the recorded results can be reviewed at a later date when more time is available to log the data.
2. **Behavior Mapping:** This technique requires you to accurately record visitors' actions in a particular place at a specific time. The area is defined and a coded form is filled out stating what happened and where. Variables can include the time of day, age groups observed, backgrounds of visitors, utilization of equipment and facilities, etc. This technique can be used to predict the success or failure of new facilities.
3. **Accretion:** This data collection method measures the physical evidence removed or left behind at a specific location. It can be a mapping of trails formed by visitors when no trails are present (for future planning of trail locations), tracking the use of recycling drop-off stations, trash or litter left behind, or numerous other physical remnants of visitors.

Obtrusive Methods

The most obvious and sometimes accurate way of measuring visitors' moods, thoughts, attitudes and behavior is to directly ask visitors what they are thinking, how they feel, and what they would like to see or feel at a specific location.

1. **Self-report measures:** This method involves interviews on-site or mail-back questionnaires given to them when they leave the site.
 - o **Questionnaires:** The advantage of this method is that if given to the visitor upon leaving the site, a questionnaire can be mailed back anonymously, or filled out at the end of the visit and dropped anonymously in a collection spot. Questionnaires can also be given to a large group at one time, with little skill needed to perform the data collection. The disadvantage is that an interviewer is not available to answer questions once the visitor has left the site, and visitors may interpret the questions inaccurately.
 - o **Interviews:** Interviews can be given only to a few people at a time since it is an individual process. The interviewer may need some level of skill in interpreting the visitor's response and in answering their questions.
2. **Cognitive Mapping:** This exercise can be fun and challenging. The visitor is asked to draw a map in one minute showing the site they just visited. This is done in a red pencil. Then they are given another color pencil to continue the map for another minute, and so on. At the end of five minutes, they are done. The map shows the importance of certain areas to them, and lists them in order of value.

Direct feedback and behavioral observations:

Informal interviews or discussions, questionnaires, or suggestion boxes can offer immediate information regarding visitors' response to the interpretation. Observing the behavior of visitors

allows staff to record a change in patterns or behavior. All these observations and feedback should be recorded for analysis.

On an annual basis, the MUTH partners and personnel should evaluate each project by answering the following questions:

- Are the objectives of the total program being met?
- Are the objectives of interpretive services for the specific project being met?
- Is the interpretive method/media fulfilling the objectives?
- Are the visitors satisfied with their experience?

Monitoring of Visitor Positive Behavior Changes

Monitoring of visitor compliance and positive behavior changes should be conducted to evaluate attitude changes, management incidences, safety concerns, and reduction of negative impacts to resources.

Evaluate visitor performance objectives to provide measures of the effectiveness of the visitor experience.

- o Interpretive media should be designed to meet performance objectives identified in the interpretive plan.
 - o Performance objectives should be written BEFORE media are developed!
- o Quantitative evaluative methods may include: the response card, observation of behavior, and visitor questionnaires.

Evaluating visitor enjoyment, perceptions & attitudes

Qualitative evaluations provide information about what people liked or learned about the interpretive program from their perspective.

- Can provide insight into visitors' experiences and provide

valuable information about the overall program.

- Focus on what the visitor learned from interpretive programs and displays by asking about a major theme.
- Methods can include: suggestion boxes, public comment forms, visitor registration books, individual interviews, group interviews.

Evaluation of Message and Media Effectiveness

Monitoring and assessment of interpretive/environmental education programs

- How well are interpreters communicating messages to visitors? Interpreters should have performance objectives on which they are evaluated regularly.
- Performance of volunteers and partners should be measured by the site managers regularly to ensure they are meeting program goals and objectives.

APPENDIX B: REFERENCES AND RESOURCES CITED

Web sites

- America's Outdoors - www.americasoutdoors.gov
- Urban Ecology Center – www.urbanecologycenter.org
- Milwaukee High School of the Arts – www2.milwaukee.k12.wi.us/mhsa
- Milwaukee Academy of Science – www.ksixteen.com/portfolio/milwport.cfm
- Boys & Girls Club of Greater Milwaukee – www.boysgirlsclubs.org/howeare/facts.html
- National Urban Tree House program – www.fs.fed.us/research/rvur/urban/urbantreehouse/uthouse.htm

Management

- Forestry Management Plan for Lynden Hill – Midtown Neighborhood Assn., 2004
- Photos of other Urban Tree House sites
- Memorandum Of Understanding – Lynden Hill Partnership, 2000
- Conservation Education Task Force Report and Recommendations: Vision-to-Action Strategy, 1998
- Conservation Education in the Forest Service, 1999
- Strategic Plan for America's Outdoors, 2002
- Map – Milwaukee's near west side (black and white)
- Conceptual architectural drawings – Milwaukee UTH
- Concept Plan – Portland UTH site
- Lynden Hill Master Concept Plan, 2003
- Lynden Hill Urban Tree House architectural drawings, 2004
- Lynden Hill vote results

- Providing Public Lands Information: A Study of Federal Partnerships, 2003

Partners

- MTNA Overview handout
- Neighborhood House handout
- Nature Time: Activities for Early Childhood, Classroom and After School Nature Exploration (2004, Neighborhood House)
- Personal communication with Bradley Blaeser, Neighborhood House
- Brochure – Neighborhood House of Milwaukee's Outdoor and Environmental Education Program
- Brochure – Neighborhood House
- Havenwoods Interpretive Plan (DRAFT)
- Boys & Girls Club of Greater Milwaukee 2003 Annual Report
- Brochure – Urban Ecology Center
- Brochure – Neighborhood House in Collaboration With America's Outdoors: Environmental Education

Media

- Lynden Hill video
- Voss Jorgensen Schueler CO., Inc. Construction proposal packet
- America's Outdoors Environmental Education Library inventory
- Brochure – National Urban Tree House program
- Milwaukee Official Visitors Guide, 2004
- Brochure – Success Stories: America's Outdoors
- Brochure – The Future of Our Nation's Forests and Grasslands, USDA Forest Service, 2001

APPENDIX C: GENERAL DESIGN/STYLE GUIDES FOR INTERPRETIVE MEDIA

Following are criteria which should be considered as interpretative media is planned, developed and provided. These standards are defined here to help ensure quality visitor experiences. It becomes the responsibility of planners, developers and providers of these services to meet the intent of these criteria.

General design criteria for interpretation and other visitor services:

- o Should conform to standards of the Americans with Disabilities Act and other related legislation to provide for universal accessibility.
- o Services should be maximized, while potential impacts to the environment are minimized.
- o Services should be designed and marketed to specific user groups to take advantage of diverse audience interests and activities.
- o All facilities and other development should be designed for ease of use and maintenance and to minimize vandalism.
- o Graphics and text for interpretive panels and printed media should be developed to ensure the most effective communication of messages.

General publication design guidelines:

- o Use performance objectives to guide the development of publications.
- o Use thematic design.
- o Write text that is readable at no higher than 8th grade level.

- o Text should be easy to read, simple and descriptive.
- o Use only professional quality photos and graphics.
- o Written text should tell a story, develop the theme.
- o High quality, recycled paper should be used.
- o Brochures and other printed media should conform to a common graphic design, and where appropriate, be coordinated with signage or other design elements on the ground.

General sign design guidelines:

- o Use performance objectives to guide the development of signs
- o Exhibits and information boards should attract attention, yet not detract from the setting.
- o Signs should have consistent design (material, color palette, fonts, etc.)
- o Use of colors, engaging graphics, and text messages should appeal to all learning styles and consciously apply professionally acknowledged principles of interpretation.
- o Text should meet visual accessibility standards (font selection, color/contrast, size, set in upper and lower case)
- o Only professional quality graphics and photos should be used.
- o Writing should be simple, descriptive, and readable at the 8th grade level. (Check grade recommendations.)
- o Text should not exceed approximately 100-200 words per panel.

Information boards:

- o Should include information about upcoming community events, how to reserve the site, and who to contact for

more information.

- o Should be creatively designed for visual appeal and ease of use by visitors.
- o Graphic design should avoid cluttered “bulletin board” appearance, yet allow for current (changing) community and event information to be posted as needed.

APPENDIX D: WHAT IS INTERPRETATION?

Most people think of it as the process through which a person translates one language into another, like Spanish into English. At its most basic level, that's what it is – translating. Environmental interpretation involves translating the technical language of a natural science or related field into terms and ideas that people who aren't scientists can readily understand. Cultural interpretation involves making historical objects and significant places relevant to the lives of people today. And it involves doing it in a way that's entertaining and interesting to these people.

Interpretation is different from environmental education per se, in that interpretation is often defined as being “informal instruction” with volunteer participants. Environmental education is something more like “formal instruction”, either in a classroom or in the field, but with a captive audience. Both have underlying structure – environmental education has learning standards; interpretation is guided by themes, goals and objectives.

Principles of Interpretation

In 1998, Larry Beck and Ted Cable expanded upon Freeman Tilden's original six principles of interpretation, and proposed a total of fifteen. In short, they are:

1. Relate subjects to peoples' lives;
2. Go beyond information – reveal deeper meaning and truth;
3. Design a story that informs, entertains, and enlightens;
4. Inspire and provoke people to broaden horizons;
5. Develop a complete theme or thesis and address the whole person;
6. Use different approaches for children, teens, and seniors;
7. Bring the past alive, make the present more enjoyable & the future more meaningful;
8. Incorporate technology with care;
9. Give focused, well-researched presentations;
10. Use basic communication techniques, and develop knowledge and skills;
11. Write what readers want to know, with wisdom, humility and care;
12. Attract support – financial, volunteer, political or administrative;
13. Instill a desire to sense beauty – provide spiritual uplift and encourage resource protection;
14. Optimize experience through intentional and thoughtful program and facility design;
15. Exude passion –for the resource and the people inspired by it.

APPENDIX E: ACCESSIBILITY STANDARDS FOR FACILITIES, PRODUCTS AND PROGRAMS

- Include captioning on all films/videos. Captioning must be visible when video is shown in public.
- Make brochures available in alternate formats upon request (such as large print (18 point) audio, and computer disc).
- Make Web sites fully accessible in compliance with Section 508 of the Rehabilitation Act.
- Offer an accessibility guide, available in alternative formats, and include the guide on your web site.
- Make sure all signage related to accessibility are appropriately posted and use appropriate language and terminology (i.e. “Accessible Parking” instead of “Handicap Parking,” etc.).
- Involve people with disabilities in planning, design, etc.
- Provide written scripts wherever audio information is presented.
- Create accessible routes to exhibits.
- Display content of information redundantly or in part – aurally, tactually, and visually when appropriate.
- Eliminate obstructions to viewing exhibits (i.e. high pedestals, railings, etc.)
- 11 million people are visually impaired, 5 percent are blind, and only 0.25 percent -0.35 percent actually read Braille. The 95 percent with low vision would benefit most from large print **(18 point)**.
- All materials for distribution are to be within the reach ranges stated in the accessibility guidelines—maximum forward reach of 48”, maximum side reach of 54”. All controls must operable with one closed fist and force of no greater than 5 lbs.
- Use Braille only where it counts (restrooms, elevators, etc.).

Wayside Exhibit (a.k.a. bench backs) Accessibility Notes

The following notes are compiled from a variety of sources, including the National Park Service, and miscellaneous texts on interpretation and design.

Guidelines affecting mobility-impaired visitors—wayside panels should be:

- Installed at accessible locations wherever possible
- Installed at heights and angles favorable for viewing by most visitors, including those in wheelchairs.
 - For standard NPS low-profile units, the recommended height is 30-34” from the bottom of the exhibit panel to finished grade;
 - For vertical exhibits and bulletin boards the height is 24-28”, depending on panel size.

Guidelines affecting visually-impaired visitors

- Exhibit type will be as legible and readable as possible.
- Panel colors will be selected to reduce eye strain and glare, and to provide excellent readability under field conditions. White should not be used for a background color.
- **Line of vision**
 - **Eye level** (dimension NOT shown in Uniform Federal Accessibility Standards or UFAS): Eye level for people in a wheel chair is 3’7” to 4’3” (43-51”) – important consideration for exhibit design.
 - **Eye level for adults in a wheelchair** is about 1½’ below that for the average standing adult. Labels, exhibit viewing, lighting, etc. should take this into consideration. There can be conflicting elements

to consider here, as reflections on cases differ for standing and seated people, as well.

- o Text above eye level is also difficult for people wearing **bifocals** to read. Also consider the **eye level of children** when they are part of the target audience.

- **Recommended type sizes**

- o Titles: 72 to 60 point minimum
- o Subtitles: 48 to 40 point minimum
- o Body text: 24 point minimum
- o Captions: 18 point minimum

OR

Vertical measurement of type	Viewing distance
1/2"	4'
5/8"	6'
2 1/2"	30'
4"	60'

- **Font styles for signs for best legibility**

- o Avoid script and fancy fonts where letters are hard to distinguish from one another.
- o Remember that fonts at the same point size actually vary widely in their size and legibility (24 points in one typeface or font can look radically different than 24 points in another typeface or font).

Accessibility Web Sites

The following Web sites will provide the information that contractors and stakeholders will need to develop ADA-accessible interpretive environments, products and programs. Each contract should address accessibility needs.

- Smithsonian Institute Accessible Exhibits Checklist and other accessibility information: www.fs.fed.us/recreation/programs/accessibility
- NPS Harpers Ferry Design Center, Accessibility for Interpretive Media: www.nps.gov/hfc/pdf/access.pdf
- National Center on Accessibility: www.indiana.edu/~nca/nca.html
- U.S. Architectural & Transport. Barriers Compliance Board: www.access-board.gov
- U.S. Census Bureau: www.census.gov/hhes/www/disable.html
- Abledata: www.abledata.com
- International Disability Access Symbols: www.gag.org/das/
- Center for Universal Design: www.design.ncsu.edu:8120/cud/
- National Institute on Disability & Rehabilitation Research (NIDRR): www.ed.gov/offices/OSERS/NIDRR/index.html
- Trace Research & Development Center: www.trace.wisc.edu/index.html
- Project Action: www.projectaction.org
- Wilderness Inquiry: www.wildernessinquiry.org
- Beneficial Designs: www.beneficialdesigns.com/
- National Center on Accessible Media: www.wgbh.org/wgbh/index.html
- Disability & Business Tech. Assist. Centers: www.ncddr.org/urlist/adatech.html
- U.S. Department of Justice: www.usdoj.gov/crt/ada/homl.htm

APPENDIX F: BENEFITS TO THE AGENCY

This plan addresses the USDA Forest Service and USDI Bureau of Land Management's national and regional strategies and priorities in the following ways:

The Recreation Agenda provides focus for programs and activities essential to the recreation program, including the improvement of settings for outdoor recreation, visitor satisfaction with facilities and services, and educational opportunities for the public about the values of conservation, land stewardship, and responsible recreation.

- This plan provides recommendations for the development of the Milwaukee Urban Tree House site as a collection of settings and resources for environmental education activities, which focus on the values of conservation and land stewardship through understanding of the interrelationships in natural systems and between people and the land.
- One of the MUTH goals is to facilitate a land stewardship ethic.

The Recreation Agenda promotes community collaboration for planning recreational programs, facilities, and services that contribute to the economic health of communities.

- This planning process incorporated input from more than 20 representatives of federal, state and local governmental agencies, non-profit organizations, and private entities. Input was solicited from a wide range of stakeholders to develop goals and statements of significance for the MUTH, which were in turn used to guide the interpretive and educational recommendations. The involvement of volunteers, agencies,

and partners will be critical to the implementation of those recommendations.

The Recreation Agenda calls for improving the availability of information, so that visitors can select the appropriate experience and know what to expect before they get there.

- This plan includes recommendations for improving the decision-making phase of the visitor experience so that visitors will know how to use the site and about opportunities available, and will thus be able to better plan their experiences.

The Recreation Agenda calls for increased educational opportunities about user ethics that promote acceptable levels of impact in natural settings.

- Environmental education and interpretation at the MUTH site will provide messages and products aimed at increasing people's respect and appreciation for natural and cultural resources, and understanding of the interrelationships in natural systems and between people and the land. High quality, thematically designed interpretation will help foster public understanding of these concepts.

The Recreation Agenda identifies the need to provide access to recreation opportunities for all people.

- Accessibility guidelines as set forth by the Americans with Disabilities Act will be implemented in all site and media design recommended by this plan.

The Forest Service National Strategic Plan Update places emphasis on providing opportunities for outdoor health-enhancing activities (USDA Objective 5.1).

- Development of the Milwaukee Urban Tree House site provides the infrastructure for outdoor environmental education activities and opportunities for families and neighbors to participate in outdoor, health-enhancing activities.
- One of the MUTH goals is to increase residents' awareness of value and benefits (to them and the community) of open green space and increased outdoor activity.

The Forest Service “Conservation Education Vision-to-Action Strategy” identifies the two core themes that Forest Service conservation education programs should focus on as: sustainability of natural and cultural resources in forest, grassland, and aquatic systems; and awareness and understanding of interrelationships in natural systems and between people and the land.

- Interrelationships and the web of life are storylines that will be told at the MUTH site and in MUTH programs.

The Forest Service “Conservation Education Vision-to-Action Strategy” identifies visitors, youth, and urban communities as target audiences for the nation conservation program emphasis.

- This plan identifies Milwaukee students as the primary target audience for education and interpretation efforts.

The Forest Service “Conservation Education Vision-to-Action Strategy” identifies partners as critical to any

conservation education venture.

- The MUTH program and site development has been a community- and partner-based effort from the start. Fourteen partners signed an official Memorandum of Understanding for the development and operation of the MUTH site and program.

The Forest Service “Conservation Education Action Plan (1999)” identifies six main activities of the national conservation education program: developing and providing educational materials; delivering conservation education; conducting education research; providing natural resource and conservation education training; building and using partnerships; and providing program management.

- The MUTH program develops and provides educational materials in the form of the environmental education library; delivers conservation education through seasonal staffing and partnerships with other education providers; provides training in the form of teacher workshops; and builds and uses partnerships to aid the development, operation, and maintenance of the MUTH program and site.

The U.S. Department of the Interior acknowledges partnerships as a supporting pillar of its mission areas and outcome goals.

- The MUTH program involves many federal, state, and local partnerships.

The State BLM Director shows Outreach and Partnerships as a major priority area for FY2005.

- The Urban Tree House program and implementation of

environmental education programs via Neighborhood House are considered specific focal points for achieving the agency's outreach and partnership goals.

APPENDIX G: A BRIEF HISTORY OF MILWAUKEE

The place that is now Milwaukee has been the site of nearly continuous settlement for thousands of years, but when Europeans began visiting the area in the late eighteenth century, Winnebago, Potawatomi, and other native Americans were living in and near the marshy land where the Milwaukee River joined Lake Michigan.

White traders and trappers operating out of Green Bay -- including the founder of Milwaukee, Solomon Juneau -- visited the site frequently for the next century and a half; serious settlement of Milwaukee by whites did not begin until the 1830s, when Indian title to the land was finally broken.

Milwaukee's fortunes over the next several decades were tied closely to the booms and busts of western land speculation, changes in transportation technology, and the development of cash crops in the vast farm lands to the west. Incorporated by the territorial legislature in 1836, Milwaukee's population hit 20,000 in 1850, 55,000 in 1865, and 200,000 in 1890, when it was one of the country's largest twenty cities. The number of residents in the city of Milwaukee reached a peak of 740,000 in 1960 before falling to 630,000 in 1990; the metropolitan area rose to around a million-and-a-half during that same time. By the latter date, the city of Milwaukee made up something like three-fourths of that population.

By the late nineteenth-century Milwaukee was a major industrial and transportation center, with tens of thousands of workers employed by the tanneries, foundries, packing plants, breweries, and other world famous manufacturers, such as Allis Chalmers, Allen-Bradley, Harley Davidson, and Miller Brewing. Linked to

the eastern United States by the Great Lakes and to the west by ten different rail lines, Milwaukee could claim, as one turn-of-the-century poster did, to "Feed and Supply the World."

Although the city reached its economic peak after World War II, by the 1970s Milwaukee was a "rustbelt" city that underwent the same wrenching economic dislocation as dozens of other northern metropolitan areas. Although it failed to recapture its former glory as a manufacturing center, the economic upturn in the 1990s returned prosperity to Milwaukee, despite a serious gap between the employment opportunities and subsequent socio-economic standing of white and African American residents of the county.

From a demographic standpoint, the city's mix of German, Irish, and "Yankee" residents before the Civil War -- half of its 45,000 residents were foreign-born in 1860 -- and the arrival afterwards of Slovaks, Russian Jews, Italians, and Poles (for instance, Milwaukee boasted 70,000 Polish-born residents by 1910) created a diversity still reflected in summertime ethnic festivals that each attract up to a hundred thousand people annually. The rapid growth of the African American and Hispanic populations after the Second World War and of the Asian population since the 1980s reflects the population shifts in many other cities; about 70 percent of students in the Milwaukee Public Schools are now children of color.

Politically, Milwaukee experienced a typical period of corruption and bossism in the Gilded Age that ended in 1910 with the election of the first of several Socialist administrations that would govern the city until the Second World War. It remains a Democratic stronghold in a Republican state. Finally, Milwaukee shares with most major urban areas economic and social

problems all too common at the turn of the twenty-first century, with a rising (if temporarily plateaued) crime rate, deteriorating infrastructure, and strained race relations.

The city's political traditions, ethnic and racial developments, and economic rise and fall have deeply affected the experiences of the children growing up in Milwaukee. To cite one example, the appalling child mortality characteristic of industrializing cities of the nineteenth and early twentieth-centuries also plagued Milwaukee. When the first socialist mayor, Emil Seidel, entered office in 1910, one of his first priorities was the establishment of the Child Welfare Commission, which hired public nurses, conducted public education, and distributed vaccines. Partly as a result of this program, the life expectancy for the average Milwaukeean nearly doubled to over fifty-three years by 1932. In the years since, and especially in the 1990s and early twenty-first century, Milwaukee has been at the forefront of such nationally prominent child-related controversies as school choice, charter schools, and welfare reform.

APPENDIX H: INTERPRETIVE MEDIA COSTS

The architect and construction firm would be able to best estimate the costs of structures, landscape settings, concrete or otherwise surfaced pathways, etc. Interpretive contractors can estimate publications, Web site development, and layout and design for bench backs.

Estimating media cost without specific designs and material is a hazardous guess at best. However, as a rough rule of thumb, some low to average range media costs are presented below. Please note that these are highly variable.

Product	Avg. cost
Interpretive benches - design <ul style="list-style-type: none"> ○ Backs made with interpretive panels ○ Backs made with metal or wood panels with designs 	~\$3,500-\$5,000 each ~\$500 - \$2,000 each
Bench backs – fabrication only <ul style="list-style-type: none"> ○ Digital, high pressure laminate panel (5'w x 18"h, 1/2" thick) ○ Wood or metal 	~\$700-\$900 each ~\$500 -\$1,000 each
Interpretive stair risers (writing and design, not including research)	~\$1,000-\$4,000 per set (6-8 risers)
Stair risers – fabrication only <ul style="list-style-type: none"> ○ Digital, high pressure laminate panel (4'w x 12"h, 1/4" thick) ○ Metal, concrete, or treated wood 	~\$3,000-\$4,000 per set (6-8 risers) prices vary

Interpretive stair risers can be also fabricated from embedded fiberglass or other material (see table below). Development costs – including writing, acquiring photos, and graphic design – can be similar to interpretive panel development, but would most likely be less involved. Development and design costs per unit decrease when multiples are ordered. Other media costs can be provided as requested.

Material Comparison

The following comparison table is courtesy of the USDA Forest Service Rocky Mountain Region's Center for Design and Interpretation.

Type	Advantages	Disadvantages	Cost of a 2' x 3' **
Foam Board (Gatorfoam or Fomecor)	Good for temporary, indoor displays. Can be constructed in-house.	Not very durable – has a short (1-season) lifespan.	\$50
Vinyl (usually 3M products)	Can be made very large (up to 52" x over 100 feet long. Is thin and lightweight, so can be laminated in plastic, and then mounted on plywood, metal, acrylic, or other substrates.	Not very durable. Best for temporary displays (2-3 years, although some warranties are for 5). May bubble in very hot climates.	\$165-200 (1/8" thick)
Fiberglass Embedment (digital output encapsulated in clear fiberglass)	Resistant to shattering, weathering, fading, and graffiti. Excellent colors and resolution. Warranties are generally for 10 years.	May need to occasionally buff with sandpaper or car polish. Edges not as attractive as high pressure laminate.	\$200-300 (1/8" thick)
High Pressure Laminate (digital output encapsulated in clear plastic resin)	Resistant to shattering, weathering, fading, and graffiti. Excellent colors and resolution. Warranties come anywhere from 10-20 years.	Can be scratched or damaged, but takes a lot of effort. Panels .5" thick can be mounted without frames.	\$300-400 (1/8" thick)
Anodized Aluminum (gold, bronze, or silver-toned etched metal)	Very durable, low maintenance, impervious to harsh weather. Attractive for recognition plaques, and designs with line drawings.	Can be scratched. Colors are very limited (can't easily do photographs or illustrations.) Can't do really large signs.	\$450-600 (1/8" thick, color)
Engraved Stone	Very durable, impervious to harsh weather. Can be very compatible with outdoor settings. Can incorporate color and photographs.	Can be broken with heavy objects. Engraved details can collect dirt and debris so require periodic washing.	\$900 - \$1,500 (\$125 - \$250 per sq. ft.)
Porcelain Enamel (ceramic coating on metal)	Outstanding color and resolution. Often guaranteed for 25 years. Extremely weather and vandal resistant. Requires very little maintenance.	Can be chipped or shattered by bullets, tire irons, or other heavy objects. Blowing sand can mar the surface.	\$1,500 for black and white; \$2,500 for 4-color; \$3700 for full color.

DISCLAIMER: Costs are shown as fabrication estimates only. Actual costs can vary widely depending on the quality of signs ordered, freight charges, size and thickness of signs, industry innovations and market competition. Cost estimates are current as of 1/05. (Costs do not include design, mounting structures, and installation.)

APPENDIX I: ARCHITECTURAL DRAWINGS



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APPENDIX J: GLOSSARY OF TERMS

Project team: The collection of individuals working under the umbrella of *Interpretive Arts Unlimited!*

Project manager: The individual designated as the sole point of contact and coordinator of the project. This person should be the only one in contact with client or subcontractors to avoid confusion on the part of client or co-workers. The Project Manager is responsible for completing the project on schedule and within budget.

Oversight committee: The group (if considered necessary) of Forest representatives that will review the plan at various stages of completion.

Community committee: The group of community members who will work with the Forest oversight committee and team.

Interpretive planning: The process of determining the most appropriate media to communicate the most appropriate messages to the most appropriate audiences for a specific site within its operational and physical parameters.

Interpretive/concept plan: Documentation of the planning process. A concept plan usually includes: a project introduction, description and analysis of site conditions, resource analysis, audience analysis, mission/goals/objectives of the agency for this project, theme/sub-themes/storylines, and narrative description of interpretive media matched to message and audience.

Interpretive master plan: A plan which includes all the elements of a concept plan, but also includes detailed analysis of facilities, landscape (site), and operations issues that relate to or will affect interpretation at the site.

Concept sketch: Prepared by exhibit designer to convey a visual image of an exhibit description. Details are not expected to be exact as long as the client receives a reasonable facsimile of what the planner has suggested.

Conceptual design: Development of concept sketches and preliminary options for materials.

Central theme statement: The central idea that links individual stories together. This can be written as a complete sentence or as a phrase that may also serve as a slogan.

Sub-theme: Organizational tool used in the planning process to group common storylines in a physical or conceptual context. Sub-themes should directly relate to the central theme statement.

Goals: Expression, in broad terms, of the skills or knowledge that the visitors will be able to demonstrate upon completion of an interpretive visit or experience.

Objectives: Statement of measurable behavioral or management goals for the interpretive site. Goals may be expressed in qualitative or quantitative terms.

Interpretive Media: The methods used to convey the themes, goals and objectives to the targeted audience. These include,

but are not limited to, panels, exhibits, brochures and other publications, Web sites, auto-tours, audio-visual programs, special events, demonstrations, and “ranger” talks.

Interpretive Panels: Alone or in conjunction with other media, thematically designed panels can be an effective form of interpretation. Interpretive panels incorporate text and graphics to communicate a message . They can be fabricated in many ways in a variety of materials, including high pressure laminates, fiberglass embedments, porcelain enamel, anodized aluminum, etc.