

**NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ADIRONDACK PARK AGENCY**

MINIMUM REQUIREMENTS APPROACH GUIDE

**Construction of Trail Bridges in
Wild Forest Areas
In the Adirondack Park**

“If there is a unifying theme to the master plan, it is that the protection and preservation of the natural resources of the state lands within the Park must be paramount. Human use and enjoyment of those lands should be permitted and encouraged, so long as the resources in their physical and biological context as well as their social or psychological aspects are not degraded.”

-- The Adirondack Park State Land Master Plan
(page 14)

On March 11, 2016, the Adirondack Park Agency approved changes to the Adirondack Park State Land Master Plan (APSLMP) Wild Forest Guidelines that allow the construction of trail bridges using non-natural materials following a Minimum Requirements Approach (MRA) in Wild Forest. The Final Supplemental Environmental Impact Statement for the APSLMP amendment states that the Agency and the Department would develop the MRA and the MRA will be added as an appendix to the MOU between APA and DEC. This document is the fulfillment of that commitment.

The MRA is a structured process to evaluate multiple criteria as part of planning for trail bridges within areas classified as Wild Forest by the APSLMP. The MRA is similar to the Minimum Requirements Decision Guide (MRDG) used by managers on Federal public lands designated as Wilderness. This MRDG is a process for land managers to identify, analyze, and select management actions that are the minimum necessary for administration of Wilderness. Like the MRDG, the MRA is designed to assist Forest Preserve planners and managers in making appropriate decisions. The guiding principle—for both decision making models—is that only the minimum tools, regulation, or force necessary to achieve established objectives are justified.

This MRA enables an objective evaluation of criteria when possible. The selection of a bridge design, however, is also based on considerations that have a varying degree of measurability. A selection will be made only after careful consideration of each alternative by APA and DEC staff of both the quantifiable and non-quantifiable criteria. A critical component of this MRA is the narrative description for each alternative, particularly to document how criteria were scored and to present information that is not captured in the decision matrix or checklist.

*This form is to be completed by DEC staff in consultation with APA staff.
The completed form will be noticed in the Environmental Notice Bulletin.*

Project Title:

Description of the Situation

The description explains the situation which requires action. Actual text from a UMP or UMP Amendment should be cited. The description will include all necessary activities necessary to construct a bridge, including access to the bridge site and staging areas. It will also describe potential long and short term impacts and associated remediation which will be carried out to address these impacts.

If an existing UMP or UMP amendment does not address the need for a bridge or if a bridge is a replacement bridge, the description will (1) identify span and location and (2) will include an evaluation of bridge or no bridge alternatives.

Description of the Situation

Description of Alternatives

Identify and describe the reasonable range of alternatives. Three to five alternatives are recommended as a range of feasible and appropriate alternatives. The range of alternatives must include a “Natural Materials”¹ option.

Each alternative must comply with the APSLMP’s Wild Forest Basic Guideline 1: The primary wild forest management guideline will be to protect the natural wild forest setting and to provide those types of outdoor recreation that will afford public enjoyment without impairing the wild forest atmosphere (APSLMP, page 35). Each alternative must be thoroughly described and include design drawings or images of similar existing bridges.

Safety and risk assessment are not analyzed in the MRA criteria because all bridge alternatives will be designed and built to adequate safety standards.

For any bridge deck that has more than a 4 foot drop, railings will be included in the design. The railings design would be essentially the same (toe kick, intermediate and top rails) for all options. The actual railing material would be selected to be compatible with the specific bridge.

1. Using the decision matrix, evaluate the following **quantifiable** criteria:
 - Tree cutting
 - Terrain alteration
 - Impacts to Natural Communities
 - Construction Duration
 - Bridge Raw Profile
 - Bridge Contrast
 - Bridge Lifespan
 - Cost

2. Using the checklist, evaluate the following **non quantifiable** criteria that show positive, negative, or no substantive difference:
 - Impacts to Species
 - Mobilization Impacts

¹ See Adirondack Park State Land Master Plan definition of Natural Materials

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- Maintenance Needs
 - Aesthetics
3. Using the narrative descriptions, elaborate on the determinations in the decision matrix and checklist (where necessary), and provide other relevant information for each alternative. This section identifies the preferred alternative and provides justification for its selection.

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Alternative 1:

Description of the “Natural Materials” Alternative

Alternative 2:

Description of the Alternative

Alternative 3:

Description of the Alternative

Alternative 4:

Description of the Alternative

Alternative 5:

Description of the Alternative

Alternative Comparison Criteria Quantifiable Criteria

As part of the alternative comparison, reviewers will work their way down the alternative's column and evaluate each alternative against the criteria listed in the corresponding row. Each option will be scored on a 10-point scale from 0 (very poor) to 10 (very good). Scores are based on impacts as they relate to the alternatives considered. Ties may occur. Examples of scoring are in Appendix A.

Tree cutting

This criterion compares alternatives with respect to how many trees are being removed for construction of the trail bridge. The minimum number of zero (0) trees is given a score of ten (10), and a score of zero (0) will be given to the alternative with the maximum number of trees expected to be removed. The alternatives that have expected tree removal that fall between these numbers will be scored proportionately.

Terrain alteration

This criterion compares alternatives with respect to the area of the terrain, in square feet, expected to be permanently altered for construction of the trail bridge. The minimum area of zero (0) square feet is given a score of ten (10), and a score of zero (0) will be given to the alternative with the maximum area of altered square feet. The alternatives that have terrain alteration square footage that fall between these values will be scored proportionately.

Impacts to Significant Natural Communities

This criterion compares alternatives with respect to the square footage of Significant Natural Community(s) (as State ranked A or B by the New York Natural Heritage Program) is impacted by the construction of the trail bridge. The minimum area of zero (0) square feet is given a score of ten (10), and a score of zero (0) will be given to the alternative with the maximum area of square feet expected to impact these communities. The alternatives that have Significant Natural Community impacts that fall between these values will be scored proportionately.

Construction Duration

This criterion compares alternatives with respect to the duration, in days, it is expected to take to build the trail bridge. The minimum value of zero (0) days is given a score of ten (10), and a score of zero (0) will be given to the alternative with the maximum number of construction days. The alternatives that have a number of construction days that fall between these values will be scored proportionately.

Bridge Raw Profile

This criterion compares alternatives with respect to the area of the vertical profile (side-view) of the trail bridge structure. This is the raw profile, or maximum length (span) times the maximum height, in square feet. The minimum area of zero (0) square feet is given a score of ten (10), and a score of zero (0) will be given to the alternative with the maximum number of raw profile square footage. The alternatives that have a raw profile square footage that fall between these values will be scored proportionately. The methodology for measuring bridges is in Appendix B.

Bridge Contrast

Since the raw profile calculation does not account for how much of the bridge structure obstructs the view of the landscape beyond it (contrast of bridge versus landscape beyond it), this criterion compares the alternatives with respect to how much of the bridge profile, by percentage, obstructs the view of the landscape beyond the bridge. The minimum score of zero (0) is given to the alternative with 100% obstructed view, and the maximum score of ten (10) is assigned to the minimum obstructed view of 0% (an 'invisible' bridge). The alternatives that have a percentage of obstructed view that fall between these values will be scored proportionately.

Bridge Lifespan

This criterion compares alternatives with respect to how long, in years, the trail bridge is expected to last until it needs to be replaced. The minimum lifespan of zero (0) years is given a score of zero (0), and a score of ten (10) will be given to the alternative with the maximum lifespan. The alternatives that have a lifespan that fall between these values will be scored proportionately.

Cost

This criterion compares alternatives with respect to how much the trail bridge is expected to cost. The minimum cost of zero (0) dollars is given a score of ten (10), and a score of zero (0) will be given to the alternative with the maximum cost. The alternatives that have a cost that fall between these values will be scored proportionately.

Alternative Comparison Criteria Non- Quantifiable Criteria

As part of the alternative comparison, reviewers will review the criteria and determine if there is a negative effect, positive effect or no substantive difference.

Impacts to Species

Does the action impact a population or individuals of any threatened or endangered species, as listed by New York State or the Federal Government?

Mobilization Impacts

How does the transportation of materials to the bridge site impact the natural resources? Many of these impacts may be temporary and will be remediated, including tree cutting for a staging area and construction and removal of an access road.

Maintenance Needs

How often in a bridge's lifespan is maintenance, including routine maintenance and inspections, required?

Aesthetics

On the Forest Preserve, structures should blend in and be compatible with their surroundings. Designs should minimize the visual conflict with the landscape. The principles of aesthetics that stimulate the senses in most viewers are proportion, order, simplicity, balance, color, and texture². How much of the bridge profile is in contrast to its setting? Are natural materials integrated as much as possible?

² <http://www.dot.state.mn.us/bridge/pdf/aestheticguidelinesforbridgedesign.pdf>

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Decision matrix for evaluating **quantifiable** criteria:

Quantifiable Criteria		Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Tree Cutting	Number					
	Score*					
Terrain Alteration (Area)	Sq. Ft.					
	Score*					
Impacts to Natural Communities (Area)	Sq. Ft.					
	Score*					
Construction Duration (Days)	Days					
	Score*					
Bridge Raw Profile (Area)	Sq. Ft.					
	Score*					
Bridge Contrast (Percent)	Percent					
	Score*					
Bridge Lifespan (Years)	Years					
	Score*					
Cost (\$)	Dollars					
	Score*					
Total Scores						

*Score calculated by staff

Checklist for evaluating non quantifiable criteria (positive, negative, or no substantive difference):

Non-quantifiable Criteria	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Impacts to Species					
Mobilization Impacts					
Maintenance needs					
Aesthetics					
Total					

Alternatives Not Analyzed

Alternatives that are not feasible or are otherwise not acceptable to implement should be identified and the reason for not considering the alternative explained. For example, alternatives that would incur unacceptable negative impacts such as excessive tree cutting.

Alternatives Not Analyzed

What alternatives were considered but not analyzed, and why?



Determination of Preferred Alternative

Explain Rationale for Selection

Selected Alternative

Explain why the selected alternative is the minimum necessary for the construction of a trail bridge in Wild Forest. The explanation should discuss why other alternatives do not meet the minimum requirements. An alternative may not be chosen based primarily on cost of implementation.

Approvals

Refer to agency policies for the following review and decision authorities:

Prepared by DEC	Name	Position	
	Signature	Date	

Approved by APA	Name	Position	
	Signature	Date	

Appendix A Alternative Comparison Criteria Quantifiable Criteria Example Calculations

Tree cutting

Example Calculation:

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Tree Cutting (Number of Trees)	107	150	200	100
Score	4.7	2.5	0	5.0

Scoring Formula:

$$\text{Score} = 10 - ((\# \text{ trees} * 10) / \text{Maximum \# trees})$$

Example:

Tree Cutting Maximum # of 200 trees = Score of **0**

Tree Cutting Value of 0 trees = Score of 10

Therefore:

Tree Cutting Value of 107:

$$\text{Score} = 10 - ((107 * 10) / 200) = \mathbf{4.7}$$

Tree Cutting Value of 150:

$$\text{Score} = 10 - ((150 * 10) / 200) = \mathbf{2.5}$$

Tree Cutting Value of 100:

$$\text{Score} = 10 - ((100 * 10) / 200) = \mathbf{5.0}$$

Terrain alteration

Example Calculation:

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Terrain Alteration (Square Feet)	16,177	17,000	15,000	15,799
Score	0.5	0	1.2	0.7

Scoring Formula:

$$\text{Score} = 10 - ((\text{Area} * 10) / \text{Maximum Area})$$

Example:

Terrain Alteration Maximum Area of 17,000 square feet = Score of **0**

Terrain Alteration Value of 0 square feet = Score of 10

Therefore:

Terrain Alteration Value of 16,177:

$$\text{Score} = 10 - ((16,177 * 10) / 17,000) = \mathbf{0.5}$$

Terrain Alteration Value of 15,000:

$$\text{Score} = 10 - ((15,000 * 10)/17,000) = \mathbf{1.2}$$

Terrain Alteration Value of 15,799:

$$\text{Score} = 10 - ((15,799 * 10)/17,000) = \mathbf{0.7}$$

Impacts to Significant Natural Communities

Example Calculation:

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Impact to S.N.C. (Square Feet)	50	75	200	10
Score	7.5	6.3	0	9.5

Scoring Formula:

$$\text{Score} = 10 - ((\text{Area} * 10)/\text{Maximum Area})$$

Example:

Impact to S.N.C. Maximum Area of 200 square feet = Score of **0**

Impact to S.N.C Value of 0 square feet = Score of 10

Therefore:

Impact to S.N.C Value of 50:

$$\text{Score} = 10 - ((50 * 10)/200) = \mathbf{7.5}$$

Impact to S.N.C Value of 75:

$$\text{Score} = 10 - ((75 * 10)/200) = \mathbf{6.3}$$

Impact to S.N.C Value of 10:

$$\text{Score} = 10 - ((10 * 10)/200) = \mathbf{9.5}$$

Construction Duration

Example Calculation:

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Construction Duration (Days)	277	297	250	317
Score	1.3	0.6	2.1	0

Scoring Formula:

$$\text{Score} = 10 - ((\text{Duration} * 10)/\text{Maximum Duration})$$

Example:

Construction Duration Maximum Value of 317 days = Score of **0**

Construction Duration Value of 0 days = Score of 10

Therefore:

Construction Duration Value of 277:

$$\text{Score} = 10 - ((277 * 10)/317) = \mathbf{1.3}$$

Construction Duration Value of 297:

$$\text{Score} = 10 - ((297 * 10)/317) = \mathbf{0.6}$$

Construction Duration Value of 250:

$$\text{Score} = 10 - ((250 * 10)/317) = \mathbf{2.1}$$

Bridge Raw Profile

Example Calculation:

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Bridge Raw Profile (sq. ft.)	1,274	1,744	879	2,122
Score	4.0	1.8	5.9	0

Scoring Formula:

$$\text{Score} = 10 - ((\text{Area} * 10) / \text{Maximum Area})$$

Example:

Bridge Raw Profile Maximum Value of 2,122 sq. ft. = Score of **0**

Bridge Raw Profile Value of 0 sq. ft. = Score of 10

Therefore:

Bridge Raw Profile Value of 1,274:

$$\text{Score} = 10 - ((1,274 * 10) / 2,122) = \mathbf{4.0}$$

Bridge Raw Profile Value of 1,744:

$$\text{Score} = 10 - ((1,744 * 10) / 2,122) = \mathbf{1.8}$$

Bridge Raw Profile Value of 879:

$$\text{Score} = 10 - ((879 * 10) / 2,122) = \mathbf{5.9}$$

Bridge Contrast

Example Calculation:

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Raw Profile (sq. ft.)	1274	1744	879	2122
Obstructed Profile (sq. ft.)	706	1013	835	659
Obstructed (%)	55.4%	58.1%	95.0%	31.1%
Score	4.5	4.2	0.5	6.9

Scoring Formula:

$$\text{Score} = 10 - ((\text{Percent contrast} * 10) / 100)$$

Example:

Bridge Contrast Maximum Value of 100% = Score of **0**

Bridge Contrast Value of 0% = Score of 10

Therefore:

Bridge Contrast Value of 55.4:

$$\text{Score} = 10 - ((55.4 * 10) / 100) = \mathbf{4.5}$$

Bridge Contrast Value of 58.1:

$$\text{Score} = 10 - ((58.1 * 10) / 100) = \mathbf{4.2}$$

Bridge Contrast Value of 95.0:

$$\text{Score} = 10 - ((95.0 * 10) / 100) = \mathbf{0.5}$$

Bridge Contrast Value of 31.1:

$$\text{Score} = 10 - ((31.1 * 10) / 100) = \mathbf{6.9}$$

Bridge Lifespan

Example Calculation:

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Bridge Lifespan (Years)	100	40	75	50
Score	10	4.0	7.5	5.0

Scoring Formula:

$$\text{Score} = (\text{Lifespan} * 10) / \text{Maximum Lifespan}$$

Example:

Bridge Lifespan Maximum Value of 100 years = Score of **10**

Bridge Lifespan Value of 0 days = Score of 0

Therefore:

Bridge Lifespan Value of 40:

$$\text{Score} = (40 * 10) / 100 = \mathbf{4.0}$$

Bridge Lifespan Value of 75:

$$\text{Score} = (75 * 10) / 100 = \mathbf{7.5}$$

Bridge Lifespan Value of 50:

$$\text{Score} = (50 * 10) / 100 = \mathbf{5.0}$$

Cost

Example Calculation:

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Cost (\$)	1,026,000	950,000	1,183,000	1,792,000
Score	4.3	4.7	3.4	0

Scoring Formula:

$$\text{Score} = (10 - (\text{Cost} * 10) / \text{Maximum Value})$$

Example:

Bridge Cost Maximum Value of \$1,792,000 = Score of **0**

Bridge Cost Value of \$0 = Score of 10

Therefore:

Bridge Cost Value of \$1,026,000:

$$\text{Score} = 10 - ((1,026,000 * 10) / 1,792,000) = \mathbf{4.3}$$

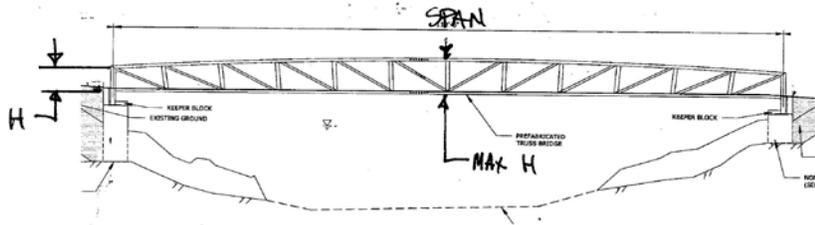
Bridge Cost Value of \$950,000:

$$\text{Score} = 10 - ((950,000 * 10) / 1,792,000) = \mathbf{4.7}$$

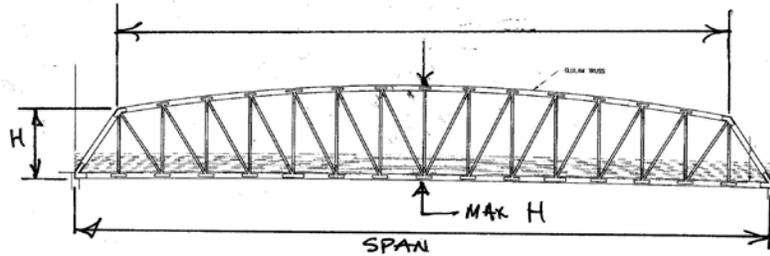
Bridge Cost Value of \$1,183,000:

$$\text{Score} = 10 - ((1,183,000 * 10) / 1,792,000) = \mathbf{3.4}$$

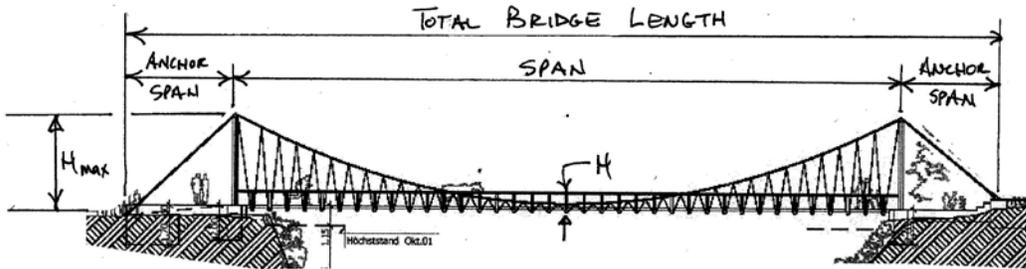
Appendix B: Bridge Profile Measurement Guidelines



STEEL TRUSS BRIDGE



WOOD TRUSS BRIDGE



SUSPENSION BRIDGE

APPENDICES

- Appendix A Division of Lands and Forests Direction LF-91-2: Cutting, Removal or Destruction of Trees and Endangered, Threatened or Rare Plants on Forest Preserve Lands: FINAL POLICY.
- Appendix B 1993 Policy on All-Terrain Bicycles.
- Appendix C 1992 Policy on Fisheries Management.
- Appendix D Standard Snowmobile Trail Bridge Design and Use of Natural Materials for Design and Construction, APA State Land Master Plan Interpretation and Staff Guidance, June, 2006.
- Appendix E Management Guidance: Snowmobile Trail Siting, Construction and Maintenance on Forest Preserve Lands in the Adirondack Park, 2009.
- Appendix F Inter-Agency Guidelines for Implementing Best Management Practices to Control Terrestrial and Aquatic Invasive Species on DEC Administered Lands of the Adirondack Park, June 2015.
- Appendix G Minimum Requirements Approach Guide for Construction of Trail Bridges in Wild Forest Areas in the Adirondack Park, May 2017.



SHERMAN CRAIG
Chairman

TERRY MARTINO
Executive Director

**DRAFT RESOLUTION PROPOSED FOR ADOPTION BY
THE ADIRONDACK PARK AGENCY
WITH RESPECT TO AN INTERPRETATION OF
THE STATE LAND MASTER PLAN
INVOLVING A MINIMUM REQUIREMENTS APPROACH FOR
THE USE OF NON-NATURAL MATERIALS IN THE CONSTRUCTION OF BRIDGES
IN WILD FOREST AREAS OF THE ADIRONDACK PARK**

May 12, 2017

WHEREAS, the Adirondack Park State Land Master Plan (Master Plan) recognizes the responsibility of the Adirondack Park Agency (Agency) for long-range planning and the establishment of basic policy for state lands in the Adirondack Park in consultation with the Department of Environmental Conservation (Department), including the need to interpret, address corrections and make clarifications of the Master Plan; and

WHEREAS, Section 816 of the Adirondack Park Agency Act requires unit management plans developed by the Department to be consistent with the Master Plan; and

WHEREAS, the Agency has the authority to establish general guidelines and criteria for the management of state lands, and under the State Administrative Procedure Act guidelines, Section 102(2)(b)(iv), to provide direction and guidance to Agency and Department staff on how to implement the guidelines of the Master Plan; and

WHEREAS, the Department has responsibility for the care and custody of state lands governed by the Master Plan and state lands within the Adirondack Park must be managed in compliance with the guidelines and criteria of the Master Plan; and

WHEREAS, the Agency is responsible for general interpretation and revisions of the Master Plan either on its own initiative or at the request of the Department, and the Agency and the Department entered into a "Memorandum of Understanding on the Implementation of the State Land Master Plan," (APA/DEC MOU) most recently revised in March 2010, which defines a process for interpreting the Master Plan; and

WHEREAS, the Department adopted a unit management plan for the Essex Chain Lakes Management Complex which contained the Agency's commitment to consider amending the Master Plan Wild Forest Guideline to allow a bridge containing non-natural materials at the crossing of the Cedar River; and

WHEREAS, thereafter in 2014 the Agency commenced review of the Master Plan and in 2016 accepted a Final Supplemental Environmental Impact Statement and transmitted to the Governor certain amendments to the Master Plan including guidelines that would allow the possible use of non-natural materials on bridges in Wild Forest Areas following a “Minimum Requirements Approach;” and

WHEREAS, the purpose of the amendment to the Master Plan is to enable the construction of bridges that are smaller, less intrusive and require less maintenance while maintaining a wild forest setting; and

WHEREAS, the staffs of the Department and the Agency have jointly developed a minimum requirement approach as contemplated by the amendment to the Master Plan to be added as an appendix to the APA/DEC MOU which follows the directions in the Essex Chain Lakes Management Complex Unit Management Plan and the amendments to the Master Plan; and

WHEREAS, Department and Agency staff will continue to consult on proposals for bridges that might use non-natural materials in Wild Forest areas; and

WHEREAS, this interpretation of the Master Plan is a Type II Action as provided in 6 NYCRR 617.5(31); and

NOW, THEREFORE, BE IT RESOLVED, that the Adirondack Park Agency finds the attached “Minimum Requirements Approach Guide - Construction of Trail Bridges in Wild Forest Areas In the Adirondack Park” consistent with the Adirondack Park State Land Master Plan, and should be used for future development of Wild Forest unit management plans; and

BE IT FURTHER RESOLVED, that the attached Guide should be added to the APA/DEC MOU as an appendix in accordance with the Agency’s determination in this matter; and

BE IT FINALLY RESOLVED, that the Agency authorizes its Executive Director to make non-substantive or typographical changes to the proposed Guide and authorizes the Chairman to advise the Commissioner of Environmental Conservation of the Agency’s determination in this matter.

Resolution adopted on this date, May 12, 2017.

AYES:

NAYS:

ABSTENTIONS:

ABSENT:

MEMORANDUM

TO: Terry Martino, APA
Kathy Moser, DEC

FROM: Kathy Regan, APA
Karyn Richards, DEC

DATE: May 3, 2017

RE: Minimum Requirements Approach Response to Public Comment

Staff received six letters during the public comment period of March 10 – April 14, 2017. The comments focused on Criteria, Weighing of Criteria and the MRA Process.

Criteria

The APSLMP definition of natural materials directs managers to consider size, shape, physical characteristics, conformity with nature and the character of the site.

The criteria do not adequately address the impacts to the natural appearance of the site, the wild forest character of the area.

The criterion of Bridge Profile Transparency was modified and renamed Bridge Contrast. The criterion of Aesthetics, which incorporates integrated natural materials, was also added. Staff believe these changes address the above comments.

The criteria of Cost should not factor into deciding a preferred alternative.

The criterion of Cost is used in the Federal analysis and was determined to be a useful criterion for this MRA.

The criteria of Construction Duration should not factor into deciding a preferred alternative.

This criterion is included to address the impact of the construction to wildlife and visitors. In some locations, the timing and duration of bridge construction could be critical to nesting birds or amphibians, for example.

The criteria of Bridge Transparency should not factor into deciding a preferred alternative.

The criterion of Bridge Profile Transparency was modified and renamed Bridge Contrast. The MRA has been modified to incorporate how the bridge blends in with its surroundings. Aesthetics are very difficult, if not impossible, to assess objectively, so this metric is an effort to quantify the visual impact of a bridge.

The equipment needed to bring in materials and the associated impacts needs to be a criterion.

The criterion of Mobilization Impacts has been added to address this issue.

The MRA does not address safety.

Safety and risk assessment are not analyzed in the MRA criteria because all bridge alternatives will be designed and built to adequate safety standards. This discussion has been added to the MRA.

Additional criteria are needed.

Additional criteria have been added.

Weighing of Criteria

Impacts to Habitat and Bridge Raw Profile should be weighted, with Impacts to Habitat having the greater weight.

The scoring system is biased toward the use of non-natural materials for bridge construction.

The criteria should not be weighted equally. Emphasis should be on factors that influence natural resources and the landscape.

The criteria of construction duration, bridge lifespan, maintenance and cost are unimportant and skew a decision towards non-natural materials.

Staff believe the system created eliminates the need to weigh criteria and the modifications made to scoring reduces bias. As it is, most of the metrics are based on environmental factors.

Process

Bridge projects should be identified and analyzed with notice in the ENB, a UMP or UMP amendment.

The MRA fails to account for full and transparent public input. Recommend notice in the ENB and sufficient time to review the documents.

The completion of the MRA will be noticed in the ENB.

The MRA needs to state that the use of natural materials is the default management option and that non-natural materials are not used simply for user or management convenience.

The MRA requires one of the alternatives be the construction of a bridge using natural materials.

The threshold question of whether or not to install or reconstruct a bridge needs to be a part of the MRA, even if the location and need was identified in a UMP.

The MRA fails to ask if the project is necessary. The MRA should be a stand-alone document and not rely on a UMP for context.

The MRA Description of the Situation asks for specific information which, if not included in a UMP or UMP amendment, must be added. This information would also be necessary when replacing an existing bridge.

The draft MRA needs additional details to prevent the use of non-natural materials from becoming the norm.

Staff believe the MRA does prevent the use of non-natural materials for trail bridges in Wild Forest from becoming the norm.

General

The approach developed provides clear guidance to designers of projects and ensures the environment is properly protected.

Staff believe the MRA does ensure environmental protection.

The MRA should state that it will not be used in more restrictive classifications.

The MRA title and text both state that this document is only for the use of building trail bridges in lands classified Wild Forest.

The MRA should be part of the interagency MOU. It should state the role of each agency, state the Agency will be consulted, and the public should be able to review.

The MRA will be added as an appendix to the Memorandum of Understanding Between the Adirondack Park Agency and the Department of Environmental Conservation Concerning Implementation of the State Land Master Plan for the

Adirondack Park, once approved by the Agency Board and the Commissioner.

The MRA should reference applicable laws and policies.

The MRA references the Adirondack Park State Land Master Plan.

The MRA should define terms including but not limited to: necessary, minimum, minimum tool, and minimum force.

Staff determined a glossary was not necessary. One Appendix was added to clarify how to measure bridge profile.