

1 ***Summary of Treatment Alternatives***

2 Table A-2 summarizes the major elements of each of the treatment alternatives and tests these  
3 elements against the proposal objectives which were stated in Chapter 1. Table A-3 reveals that  
4 Treatment Alternative C meets the project objectives more completely than other treatment  
5 alternatives considered.  
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7 The comparative analysis of potential impacts from each treatment alternative is summarized in  
8 Table A-3. Resource topics carried forward for analysis in this CLR/EA are included in the  
9 table. More detailed analysis and conclusions of potential impacts are provided in Appendix B:  
10 Treatment Impacts / Environmental Consequences.  
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12 1 = Partially Meets Project Objective

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14 2 = Meets Basic Level of Objective

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16 3 = Meets Highest Level of Objective

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| <b>TABLE A-2</b>  |   |                      |                      |                      |
|---|---|----------------------|----------------------|----------------------|
| <b>Project Objectives</b>   | <b>Current Management Alternative A</b> | <b>Alternative B</b> | <b>Alternative C</b> | <b>Alternative D</b> |
| Document the development of the historic landscapes within the Calumet Unit of Keweenaw National Historical Park.   | 1                                       | 2                    | 2                    | 2                    |
| Document the existing conditions of the historic landscapes within the Calumet Unit of Keweenaw National Historical Park.   | 1                                       | 2                    | 2                    | 2                    |
| Evaluate the significance and integrity of the historic landscapes within the Calumet Unit of Keweenaw National Historical Park.  | 1                                       | 2                    | 2                    | 2                    |
| Provide treatment recommendations for managing the historic landscape resources within the Calumet Unit of the park.  | 1                                       | 2                    | 3                    | 3                    |
| Recommend landscape treatments to address management needs identified by the NPS and park partners in the Calumet Unit.   | 1                                       | 2                    | 3                    | 3                    |
| Provide management recommendations and schematic designs for specific historic landscapes within the park that accommodate current and future needs while preserving the historic character and significant features present. | 1                                       | 2                    | 3                    | 3                    |
| Streamline planning and compliance processes for the historic landscapes within the Calumet Unit of Keweenaw National Historical Park.  | 1                                       | 2                    | 2                    | 2                    |
| Enhance visitor experience by providing information about the history of the development of the park to interpreters and site managers.   | 1                                       | 2                    | 3                    | 3                    |
| Provide recommendations for efficiently managing the historic landscapes within the Calumet Unit of the park while taking into consideration budget constraints.  | 1                                       | 3                    | 2                    | 1                    |
| <b>TOTALS</b>   | <b>9</b>                                | <b>19</b>            | <b>22</b>            | <b>21</b>            |

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| <b>TABLE A-3</b>      |   |   |   |   |
|-----------------------|---|---|---|---|
| <b>Resource Topic</b> | <b>Current Management Alternative A</b>   | <b>Alternative B</b>  | <b>Alternative C</b>  | <b>Alternative D</b>  |
| Cultural Resources    | <p>direct, short and long-term, moderate adverse impacts to cultural resources</p> <p><b>Section 106:</b> Cultural landscape – <b>Adverse Effect</b></p> <p>Archeological Resources – <b>unknown, further Section 106 consultation required</b></p> | <p>Direct, long-term minor beneficial impacts to cultural resources</p> <p><b>Section 106:</b> Cultural landscape- <b>No adverse effect</b></p> <p>Archeological Resources – <b>No adverse effect</b></p> | <p>Direct, long-term moderate beneficial impacts to cultural resources</p> <p><b>Section 106:</b> Cultural landscape – <b>No adverse effect</b></p> <p>Archeological resources – <b>No adverse effect</b></p> | <p>Direct, long-term moderate to major beneficial impacts to cultural resources</p> <p><b>Section 106:</b> Cultural landscape –<b>No adverse effect</b></p> <p>Archeological resources – <b>No adverse effect</b></p> |
| Socioeconomics        | Direct, long-term, minor beneficial impact  | Direct, long-term minor to moderate beneficial impact   | Direct, long-term, moderate beneficial impact   | Direct, long-term, moderate beneficial impact   |
| Visitor Experience    | Long-term, minor beneficial impact  | Long-term minor to moderate beneficial impact   | Long-term moderate beneficial impact  | Long-term moderate to major beneficial impact   |
| Park Operations       | Direct, short and long-term, minor adverse impacts  | Direct, short and long-term minor adverse impacts   | Direct, short and long-term minor to moderate adverse impacts   | Direct, short and long-term minor to moderate adverse impacts   |

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1 **Environmentally Preferable Treatment Alternative**

2 The environmentally preferable treatment alternative is determined by applying the criteria  
3 suggested in NEPA, which is guided by the Council on Environmental Quality (CEQ). The CEQ  
4 provides direction that "...the environmentally preferable alternative is the alternative that will  
5 promote the national environmental policy as expressed in NEPA's Section 101," using six  
6 criteria from Section 101 detailed below:  
7

- 8 • Criterion 1: Fulfill the responsibilities of each generation as trustee of the environment  
9 for succeeding generations.
- 10 • Criterion 2: Assure for all generations safe, healthful, productive, and aesthetically and  
11 culturally pleasing surroundings.
- 12 • Criterion 3: Attain the widest range of beneficial uses of the environment without  
13 degradation, risk of health or safety, or other undesirable and unintended consequences.
- 14 • Criterion 4: Preserve important historic, cultural, and natural aspects of our national  
15 heritage and maintain, wherever possible, an environment that supports diversity and  
16 variety of individual choice.
- 17 • Criterion 5: Achieve a balance between population and resource use that will permit high  
18 standards of living and wide sharing of life's amenities.
- 19 • Criterion 6: Enhance the quality of renewable resources and approach the maximum  
20 attainable recycling of depletable resources.

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22 Using the CEQ's interpretations of the Section 101 criteria and the alternatives impact analysis in  
23 this document, it was determined that the combination of Treatments Common to all Treatment  
24 Alternatives and the Red Jacket Road Corridor and Agassiz Park **Treatment Alternative C is**  
25 **the environmentally preferable alternative.**

26  
27 The combination of Treatments Common to all Alternatives and the Red Jacket Road Corridor  
28 and Agassiz Park **Treatment Alternative C** would implement the highest level of rehabilitation,  
29 restoration and preservation of all the alternatives. This alternative strikes a balance between  
30 resources available and the desire to present a landscape that visually represents the conditions  
31 related to community activities during the period of significance, while minimizing impacts to  
32 the natural resources at the Calumet Unit.  
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34 No new information came forward during public scoping or consultation with regulatory  
35 agencies or Native American tribes to necessitate the development of any new alternatives, other  
36 than those described and evaluated in this document. Because it meets the Purpose and Need for  
37 the project and is the environmentally preferable Treatment Alternative for the Red Jacket Road  
38 Corridor and Agassiz Park, **Treatment Alternative C is also the recommended Treatment**  
39 **Alternative for this proposal.**  
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1 **Mitigation Measures**

2 The following mitigation measures have been developed to minimize the degree and /or severity  
3 of impacts, and would be implemented, as needed, during implementation of the Recommended  
4 Treatment Alternative (Alternative C).

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6 *Cultural Resources*

- 7 • Proposed projects that would affect historic features of the cultural landscape (structures,  
8 vegetation, landscape character, etc...) must comply with the requirements of *The*  
9 *Secretary of the Interior's Standards for the Treatment of Historic Properties with*  
10 *Guidelines for the Treatment of Cultural Landscapes* and *Cultural Resource Management*  
11 *Guideline*.
- 12 • Until the Keweenaw National Historical Park Archeological Inventory is completed,  
13 conduct site/project specific archeological assessments to determine if NRHP-eligible  
14 resources are evident. If NRHP-eligible resources are identified, determine project  
15 redesign or other appropriate mitigation measures through consultation with the SHPO,  
16 Midwest Archeological Center, or other appropriate parties.
- 17 • Any contractors and subcontractors, utilized for construction projects would be instructed  
18 on procedures to follow in case previously unknown archeological resources are  
19 uncovered during construction. If previously unknown and significant archeological  
20 resources are unearthed during construction, work would be stopped in the area of  
21 discovery and the NPS would consult with the SHPO, the Advisory Council on Historic  
22 Preservation and other appropriate parties. If impacts to significant resources could not  
23 be avoided by redesign, mitigating measures would be developed in consultation with the  
24 SHPO to help ensure that the informational significance of the sites would be preserved.  
25 If appropriate, provisions of the Native American Graves Protection and Repatriation Act  
26 of 1990 would be implemented.
- 27 • The NPS would ensure that any contractors and subcontractors utilized for construction  
28 are informed of the penalties for illegally collecting artifacts or intentionally damaging  
29 archeological sites, or historic properties.

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31 *Visitor Experience*

- 32 • To minimize the potential impact to park visitors, variation on construction timing may  
33 be considered, such as conducting a majority of the work in shoulder seasons.
- 34 • Construction zones would be identified and fenced with snow fencing or other material  
35 prior to activity. All protection measures would be clearly stated in the construction  
36 specifications and workers would be instructed to avoid conducting activities beyond the  
37 construction zone.
- 38 • If deemed necessary for specific projects, temporary interpretive panels would be  
39 provided during the construction period to inform and educate visitors regarding the  
40 project and its importance to the overall historic landscape of the Calumet Unit.
- 41

1 *Park Operations*

- 2 • Because soils are susceptible to erosion until revegetation takes place, standard erosion  
3 control measures such as silt fences and /or sand bags would be used to minimize any  
4 potential erosion. Other NPS Best Management Practices (BMPs) would be used as  
5 needed, including sediment traps and erosion checks.
- 6 • Fugitive dust generated by construction would be controlled by spraying water on the  
7 construction site, as needed. Water needed for dust control would come from NPS  
8 approved sources or would be provided by contractors from sources outside the park.
- 9 • To reduce noise and emissions, construction equipment would not be permitted to idle for  
10 long periods of time.
- 11 • To minimize potential petrochemical leaks from construction equipment, the equipment  
12 would be regularly monitored to identify and/or repair any leaks.

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