National Park Service
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Cost-Benefit and Regulatory Flexibility Analyses: Leelanau Scenic Heritage Route Trailway Sleeping Bear National Lakeshore

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Introduction

This report presents the cost-benefit and regulatory flexibility analyses of alternatives for the Leelanau Scenic Heritage Route Trailway in Sleeping Bear National Lakeshore. A quantitative cost-benefit analysis was conducted using the benefits transfer method. A qualitative regulatory flexibility analysis was conducted based on the results of the cost-benefit analysis. Nevertheless, the National Park Service (NPS) believes that these analyses provide an adequate assessment of all relevant costs and benefits associated with the regulatory action.

The results of the cost-benefit analysis indicate that the costs of the regulatory action are justified by the associated benefits. Benefits would likely be highest under Alternative B, the preferred alternative. Additionally, this regulatory action will not have an annual economic effect of $100 million, and will not adversely affect an economic sector, productivity, jobs, the environment, or other units of government. This regulatory action will improve economic efficiency.

The results of the regulatory flexibility analysis indicate no adverse impacts for any sector of the economy or unit of government, including small entities. Given those findings, the regulatory action will not impose a significant economic impact on a substantial number of small entities.

Cost-Benefit Analysis

Statement of Need for the Proposed Plan

Executive Order 12866 (58 FR 51735) directs Federal agencies to demonstrate the need for the regulations they promulgate. In general, regulations should be promulgated only when a "market failure" exists that cannot be resolved effectively through other means. A market failure exists when private markets fail to allocate resources in an economically efficient manner. A significant cause of market failure is an "externality," which occurs when the actions of one individual impose uncompensated impacts on others. For example, motorized vehicle users within the Lakeshore can impose costs on pedestrians and bicyclists associated with congestion and health and safety risks if pedestrians and bicyclists are required to use the same roads. Because these costs are not compensated through private markets, motorized vehicle users have little incentive beyond existing traffic regulations to change their behavior accordingly. The result is an inefficient allocation of Lakeshore resources.

The purpose of this regulatory action is to designate the Leelanau Scenic Heritage Route Trailway for multi-use, including hiking and bicycle use. Therefore, this action would separate hiking and bicycle use from motorized vehicle use and thereby enhance visitor use and enjoyment. This action will improve economic efficiency by minimizing the uncompensated impacts associated with congestion and health and safety risks within the Lakeshore.

Baseline Conditions

The costs and benefits of a regulatory action are measured with respect to its baseline conditions. Baseline conditions describe the state of the world that would exist without the regulatory action. Therefore, all costs and benefits that are included in this analysis are incremental to the baseline conditions. That is, any future impacts that would occur without the regulatory action, as well as any past impacts that have already occurred, are not included in this analysis.

For this proposed regulatory action, the baseline conditions are described by the No Action Alternative. Currently, there are no non-motorized, hardened surface trails within the M-22 and M-109 highway corridors, and bicyclists are limited to the road shoulder along those routes.

Costs and Benefits

The regulatory action involves constructing and designating the Leelanau Scenic Heritage Route Trailway for multi-use, including bicycle use. Construction costs for Alternative B, the preferred alternative, are estimated at $7,305,761 (National Park Service, undated). Construction costs are likely similar for Alternative A. Operation and maintenance of the trailway will be performed by the Friends of Sleeping Bear Dunes at no additional cost to NPS.

This action will generate benefits in the form of increased visitor opportunities for pedestrians and bicyclists. Economists term such benefits ***consumer surplus***[1], which can be measured through ***benefits transfer***. Benefits transfer combines information from existing valuation studies in the economics literature with site-specific information to estimate total benefits. Table 1 reports the per visitor-day values for hiking and mountain biking from Loomis (2005). Regular biking values were not identified in that reference.

Table 1
Consumer Surplus Values per Visitor-Day for Hiking and Mountain Biking

Activity	-----Consumer Surplus per Visitor-Day----- (2004 dollars)[a]	(March 2012 dollars)[b]
Hiking	$30.84	$37.45
Mountain biking	$73.78	$89.60

[a]Source: Loomis (2005)
[b]Indexed using the Consumer Price Index for all urban consumers (BLS 2012)

Since mountain biking is a different visitor experience than what will be offered by the Leelanau Scenic Heritage Route Trailway, only the hiking visitor-day value of $37.45 will be used in this benefits transfer. That value would apply to new visitors that

[1] Consumer surplus equals the maximum willingness to pay for an activity minus the costs involved to participate in that activity.

are drawn to the Lakeshore by the trailway. NPS (undated) estimates that visitor use may increase by 60,000 visitor-days per year under both Alternatives A and B. Therefore, NPS anticipates approximately $2,247,000 in annual benefits under each of those alternatives. Over a 10-year analysis period, the present value of those benefits would be $19.2 million. Since Alternative B would deviate from the highway corridor where possible to avoid physical or environmental constraints, provide access to natural, cultural, and recreation resources, and promote a broader variety of experiences for the trailway user, it would likely provide at least a marginally greater benefit than Alternative A.

Since this action will generate positive benefits greater than its costs, NPS concludes that positive net benefits will be generated. These benefits will likely be highest for Alternative B, the preferred alternative.

Uncertainty

The benefits transfer method of estimating benefits necessarily involves some level of uncertainty since economic values are drawn from the literature involving resources that are different from those of the subject site. Further, appropriate economic values for bicycling could not be identified for this analysis. Therefore, the total benefits estimate of this regulatory action may be different from that determined in this analysis. NPS is not aware of any other sources of uncertainty.

Conclusions

The results of this cost-benefit analysis indicate that positive net benefits will be generated by the regulatory action. These net benefits will likely be highest for Alternative B, the preferred alternative. Given that, NPS concludes that the benefits associated with the regulatory action justify the associated costs. Further, this regulatory action is not expected to have an annual economic effect of $100 million, or to adversely affect an economic sector, productivity, jobs, the environment, or other units of government. This regulatory action will improve economic efficiency.

Regulatory Flexibility Analysis

The Regulatory Flexibility Act, as amended, requires agencies to analyze impacts of regulatory actions on small entities (businesses, nonprofit organizations, and governments), and to consider alternatives that minimize such impacts while achieving regulatory objectives. Agencies must first conduct a threshold analysis to determine whether regulatory actions are expected to have a significant economic impact on a substantial number of small entities. If the threshold analysis indicates a significant economic impact on a substantial number of small entities, an initial regulatory flexibility analysis must be produced and made available for public review and comment along with the proposed regulatory action. A final regulatory flexibility analysis that considers public comments must then be produced and made publicly available with the final regulatory action. Agencies must publish a certification of no significant impact on a

substantial number of small entities if the threshold analysis does not indicate such impacts.

This threshold analysis relies on the cost-benefit analysis, which concludes that this regulatory action will generate positive net benefits. In addition to that, this action will not impose restrictions on local businesses in the form of fees, training, record keeping, or other measures that would increase costs. Rather, this action would reasonably increase Lakeshore visitation and thereby generate benefits for businesses, including small entities, through increased visitor spending. Given those findings, this proposed regulatory action will not impose a significant economic impact on a substantial number of small entities.

References

Bureau of Labor Statistics (BLS). Website http://www.bls.gov/ accessed May 2, 2012.

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