

***Cost-Benefit and Regulatory Flexibility Analysis
Proposed Regulations for Trail Management in
Chattahoochee River National Recreation Area***

Rick Slade

National Park Service
Chattahoochee River National Recreation Area

1978 Island Ford Parkway
Sandy Springs, GA 30350

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Introduction

This report presents the cost-benefit and regulatory flexibility analyses of the proposed regulatory action designating approximately 4.4 miles of new single track trails and other existing trails and administrative roads as routes open to bicycle use within the Chattahoochee River National Recreation Area (CRNRA). Quantitative analyses were limited to basic projections, as further analysis would require more intensive research and study than is warranted for this purpose. 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 proposed regulatory action are justified by the associated benefits. Additionally, this proposed 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.

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 proposed regulatory action will not impose a significant economic impact on a substantial number of small entities.

As part of a trail plan covering three of the sixteen distinct land-based units within CRNRA, park management evaluated three alternatives for potential bicycle use on trails and administrative roads in the park, including two action alternatives. In January of 2010, the Trail Connection Project Environmental Assessment (EA) identified Alternative B as the Preferred Alternative. Alternative B proposed constructing 4.4 miles of new trails and designating most of these new trails, plus another 2.5 miles of existing trails and administrative roads in the park, as routes open to bicycle use. Alternative B was subsequently named the Selected Action, and the NPS completed a Finding of No Significant Impact (FONSI) on April 15, 2010 in support of this alternative. The EA and FONSI can be found by following the Chattahoochee River Trail Connection Plan link on the CRNRA planning web page <http://www.nps.gov/chat/parkmgmt/planning.htm>.

According to the EA, the purpose of the selected action is “to replace badly eroded trails and create a new system connected trails in order to reduce long-term impacts to the environment and enhance recreational endeavors in three park units.” The selected alternative will expand the number of trails at CRNRA open to bicycle use, consistent with the September 2009 General Management Plan (GMP), and enhance visitor use and experience while better protecting natural resources.

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, bicyclists and horseback riders within the park can impose costs associated with congestion and health and safety risks if both groups are required to use the same roads. Because these costs are not compensated through private markets, both groups have little incentive to change their behavior accordingly. The result is an inefficient allocation of park resources.

Alternatives Considered in the Current Analysis

Complete descriptions of all alternatives can be found in the Trail Connection Project Environmental Assessment (NPS 2010).

Selected Action Alternative

Alternative B: This alternative includes the construction of 4.3 miles of new trail in the Cochran Shoals/Sope Creek unit and 0.1 mile of new trail in the Johnson Ferry South unit. Most of the new trails will be designated for hiking and bicycle use. The 0.1 mile trail segment in Johnson Ferry South will be open to bicycles and will connect an existing administrative road to a trail underpass being constructed below the new Johnson Ferry Road bridge. Most of the new Cochran Shoals trails will be open to bicycles, but some will be hiking only. Upon completion of the project, Cochran Shoals/Sope Creek will have 6.7 miles of hiking and biking trails and 3.0 miles of hiking only trails.

Other Alternatives Considered

No Action Alternative: The No Action Alternative is required by the National Environmental Policy Act for the purposes of providing comparison to alternatives considered.

Alternative A: Under Alternative A, the construction of new trails in Cochran Shoals/Sope Creek and Johnson Ferry South would be the same as under Alternative B. However, under Alternative A, none of the new trails would be designated as open to bicycles. Existing multi-use trails (hiking and biking) and administrative roads would remain open to bicycle use, but no new multi-use trails would be established at either site under this alternative.

Baseline Conditions

The costs and benefits of an action alternative are measured with respect to its baseline conditions. Baseline describes conditions that would exist without the regulatory action. Therefore, all costs and benefits included in this analysis are incremental to the baseline conditions. That is, any future impacts that would occur without the selected alternative, as well as any past impacts that have already occurred, are not included in this analysis. For this regulatory action, the baseline conditions are described in the No Action Alternative in the Environmental Assessment (NPS 2010), as well as from other supporting data provided by park management.

At present, CRNRA allows bicycle use on approximately 7.5 miles of administrative roads that function as trails and are commonly used by hikers and bikers. The longest existing segments are the Cochran Shoals loop trail and the Sope Creek ridge trail, which connect to each other and are both approximately 2.4 miles long. The next longest segment is the old farm road that runs along the river in Johnson Ferry South and provides approximately 2.1 additional miles of trail used for hiking and biking.

In terms of economic activity, baseline conditions are defined by Non-Commercial Users, visitors who bring bicycles they own or have rented off-site. Estimates of baseline activity are shown in Table 1.

Table 1: Baseline Economic Activity by Bicyclists

| | Baseline Activity |
|--|--------------------------|
| Economic Activity from Non-Commercial Users | |
| Total Park Visitation, FY2010 ¹ | 3,011,393 |
| Share of Park Visitors Participating in Bicycling ² | 9% |
| Estimated Park Visitors Who Bicycled | 271,025 |
| Consumer Surplus per Visitor Day, Bicyclists ³ | \$59.35 |
| Total Estimated Baseline Economic Activity | \$16,085,333 |

¹ From NPS Statistical Abstract, <http://www.nature.nps.gov/stats>

² From Chattahoochee River National Recreation Area Visitor Study, Summer 2010, University of Idaho Park Studies Unit

³ Based on 2004 dollar figure from Loomis (2005), adjusted to 2011 dollars by applying CPI from US Bureau of Labor Statistics.

Non-commercial use was estimated by using the share of visitors who bicycled while visiting the park from the most recent Visitor Study (9%) to the total FY2010 visitation of 3,011,393. This method resulted in an estimate of 271,025 non-commercial users. Current economic activity by non-commercial users was calculated by using the figure for consumer surplus per visitor day from a 2005 national study of outdoor recreation¹. Consumer surplus is defined in the study as “the maximum willingness to

¹ Loomis, 2005, see References

pay for an activity minus the costs involved to participate in that activity.” Assuming that bicyclists are all day visitors and applying an estimated consumer surplus of \$59.35 per visitor day, the current economic activity from non-commercial bicyclists is \$16,085,333. Since no commercial outfitters offer bicycling services within the park, this amount represents to the total baseline amount of economic activity from bicyclists at CRNRA.

Costs and Benefits

Constructing the 4.4 miles of new trails recommended in Alternative B will require an investment of about \$150,000.

Given the limited number of trails open to bicycles and the demand for additional bicycle trails identified in both the GMP and the EA, it is reasonable to expect that Alternative B’s addition of 4.4 miles of new trails will significantly improve CRNRA’s attractiveness to bicyclists and thus drive additional economic activity. By increasing the available trail mileage in the park from 7.5 miles to 11.9 miles (a 59% increase), it is reasonable to expect that the number of non-commercial users will increase by at least 50%. Table 2 illustrates the annual economic activity that would be generated by such increases.

Table 2: Projected Economic Activity Generated by Alternative B

| | Total | Net Increase Over Baseline |
|---|---------------------|----------------------------|
| Economic Activity from Non-Commercial Users | | |
| Non-Commercial Users <i>(50% Increase from Baseline)</i> | 406,538 | 135,513 |
| Consumer Surplus per Visitor Day, Bicyclists ¹ | \$59.35 | \$59.35 |
| Total Estimated Economic Activity | \$24,128,030 | \$8,042,697 |

¹ Based on 2004 dollar figure from Loomis (2005), adjusted to 2011 dollars by applying CPI from US Bureau of Labor Statistics.

The total net increase in annual economic activity from the addition of new trails is therefore projected to be about \$8 million. At this level of activity it will take approximately one week to exceed the initial construction cost of \$150,000.

Cost Effectiveness Analysis

To determine whether the proposed alternative would reasonably generate positive net benefits², a cost effectiveness analysis was conducted. This analysis determined the number of new visitors that are needed to generate sufficient benefits each year to offset construction costs associated with the proposed alternative. Given the total cost to NPS of implementing the proposed alternative will be \$150,000, the cost effectiveness analysis determined the park will need to attract at least 253 new visitors annually in order to generate positive net benefits.

² Net benefits equal the total benefits received from the action, minus any associated costs.

NPS believes it is reasonable to expect an annual increase of 253 visitors since annual visitation in CHAT for 2011 was 3,161,297 and the additional visitation needed would be less than 100th of 1 percent of that amount. Also, public comments received during the public review period for the EA were generally in favor of developing additional trails for bicycle use in the park. The demand for recreational uses such as hiking and mountain biking continue to increase both regionally and nationally. In addition, this action does not involve additional measures that would increase costs to visitors, businesses, or local communities. Therefore, it is reasonable to believe that local economies will experience increases in economic activity from the proposed alternative, and that the net benefits of the proposed alternative will be positive.

Uncertainty

The above analysis is an estimate based on current and past behavior of visitors to CRNRA. The exact increase in bicycle usage and economic activity would require more intensive research and study. Still, even the modest amount of additional activity estimated in this study would produce positive net benefits to NPS and the Atlanta metropolitan area. Any uncertainty involved in this analysis is associated only with the magnitude of those benefits. NPS is not aware of any other sources of uncertainty.

Conclusion

The results of this cost-benefit analysis indicate that greater net benefits will be generated by implementing Alternative B, the selected alternative, as opposed to any of the other alternatives. Given that, NPS concludes that the benefits associated with implementing the selected alternative justify the associated costs. The selected alternative's annual economic effect is expected to far fall short of \$100 million, and it should not adversely affect any economic sectors, productivity, jobs, the environment, or other units of government. The selected alternative will improve economic efficiency.

Regulatory Flexibility Analysis

The Regulatory Flexibility Act of 1980, as amended in 1996 requires agencies to analyze impacts of regulatory actions on small entities (businesses, non-profit 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 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 the selected alternative will generate positive benefits and no costs to visitors, businesses, or local communities. In addition, 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 park visitation and thereby generate benefits for businesses, including small entities, through increased visitor spending. Given those findings, the selected alternative 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>

Environmental Assessment: Proposed Trail Connection Project, National Park Service, 2010.

Loomis. John, "Updated Outdoor Recreation Use Values on National Forests and Public Lands," General Technical Report PNW-GTR-658, Department of Agriculture, Forest Service, Pacific Northwest Research Station, October 2005.

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