

Use Case: Getting Researchers and Planners on the Same Page for National Forest Planning

<http://bit.ly/NI-ESCM>

Context

Members of the Ashley National Forest planning team adapted an ecosystem services conceptual model (ESCM) to identify key ecosystem services outcomes related to recreation planning alternatives. Each member of the planning team had different expertise that contributed to the group discussion. The resulting list of ecosystem service outcomes served as a starting point to identify possible social and economic metrics for three purposes: (1) comparing plan alternatives, (2) preparing an Environmental Impact Statement¹ for their new plan; and (3) for monitoring after plan implementation. The ESCM helped the diverse experts on the planning team quickly get on the same page regarding the key ecosystem services mostly likely impacted by the planning alternatives.

Process

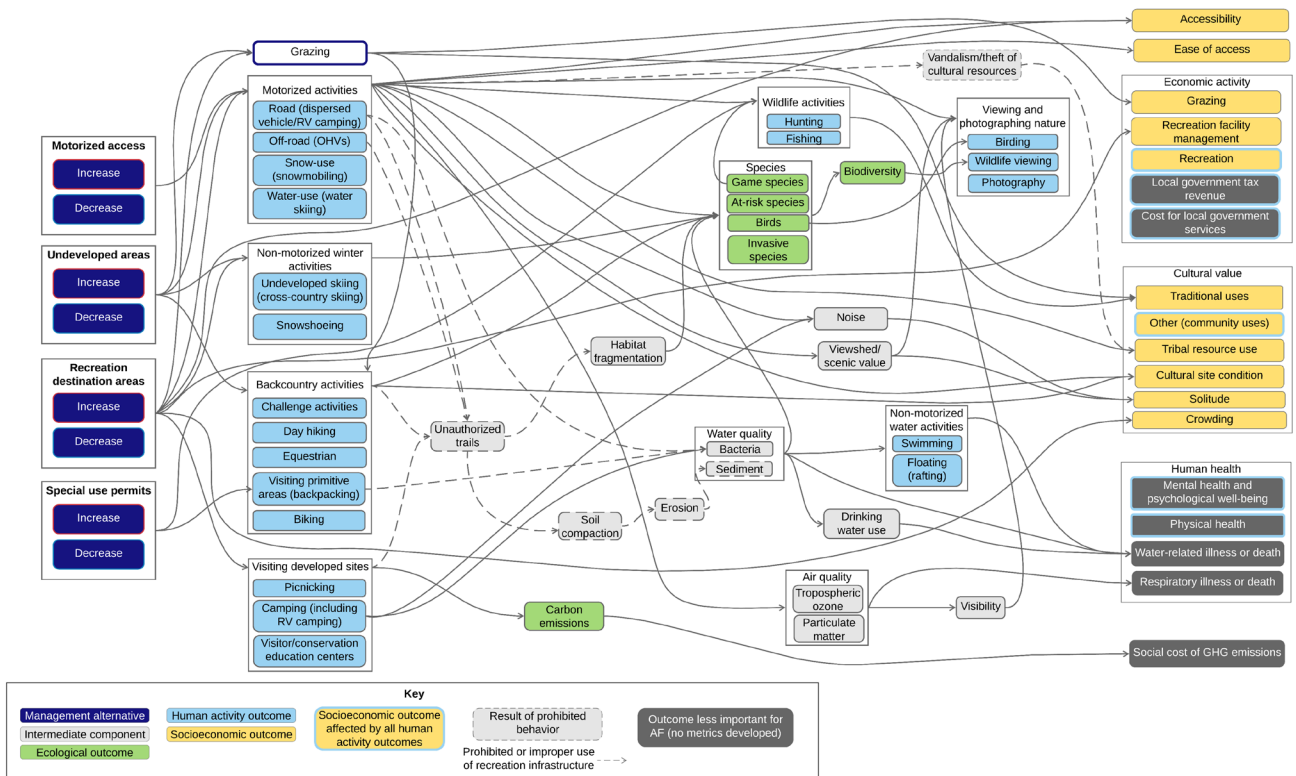
The Nicholas Institute for Environmental Policy Solutions at Duke University in partnership with members of the U.S. Forest Service hosted an hour-long virtual workshop with approximately 10 members of the Ashley National Forest planning team, including participants with expertise in recreation programming, soil and water management, and economics.

The workshop participants reviewed a general project-scale recreation management ESCM that had been previously developed from academic literature and conversations with Forest Service experts. They provided feedback on how the ESCM could be adapted to better represent the planning context (a broader scale than the general ESCM) and the specific ecology and recreational uses of the Ashley National Forest. As a result of their feedback, the interventions were changed from project-scale actions like “trail construction” to planning-scale alternatives such as “increase or decrease recreation destination areas.” Some outcomes not relevant to the Ashley National Forest, such as incidence of tick-borne disease, were removed from the model, and new outcomes important to recreational use of the forest, including accessibility and solitude, were added. The generic types of recreation listed in the general model were specified to better reflect activities in Ashley National Forest (e.g., changing “skiing” to “undeveloped cross-country skiing”).

Participants also discussed whether each outcome was likely to change as a result of the planning alternatives and identified several (e.g., local government tax revenue and social cost of greenhouse gas emissions) that should be removed as key ecosystem service outcomes because they were not tightly tied to the alternatives. The remaining outcomes were included in a follow-up workshop to identify socioeconomic metrics for forest plan alternatives.

1. The [National Environmental Policy Act](#) requires Environmental Impact Statements (EIS) as part of its environmental review process for actions proposed by Federal agencies, including USFS, that have potential for significant environmental effects.

Figure 1. Final ESCM for recreation planning in Ashley National Forest



Note. Key ecosystem service outcomes in yellow boxes were included in the metrics discussion. No metrics were developed for ecosystem service outcomes in gray boxes.

Resources used

Workshop materials: Pages 2–8 of the workshop materials document include information that was shared with the participants before the workshop and slides with discussion questions to help participants adapt and refine the general ESCM.

General recreation management ESCM: This general, project-scale recreation management ESCM was used as a basis for workshop discussion to create a version adapted to the Ashley National Forest context and planning scale. Future forest planning processes would most likely want to start with the [generic planning scale model](#) developed based on this case study.

Applications

Getting everyone on the same page. A workshop format was an appropriate avenue for convening members of the Ashley National Forest planning team with their diverse areas of expertise and quickly coming to agreement regarding key ecosystem services outcomes of plan alternatives related to recreation.

Getting input from diverse expertise to understand the complete system. No one person is an expert in all of the linkages represented in an ESCM. Having multiple perspectives and areas of expertise among the participants helped to ensure the final ESCM reflected a broad view of the Ashley National Forest social-ecological system.

Stakeholder communication. The Ashley National Forest planning team thought that the full ESCM was too complex to be used in communication with stakeholders about the forest plan. However, simplified versions of the ESCM may be useful during the assessment phase (earlier in the planning process) to inform resource-specific discussions with the public and collaborators.

