



Developing Alternatives

| 4 |

Topics Discussed

- Concepts
- Design Assumptions
- The Screening Process
- Developing the Alternatives
- Considered but Rejected Concepts



Developing Alternatives

The process of developing alternatives involved four steps:

- Developing concepts
- Screening the concepts against criteria
- Establishing design assumptions related to the concepts
- Packaging the concepts into draft alternatives

The planning process produced hundreds of concepts for Cades Cove. To manage these concepts, evaluation criteria were identified to “screen” them. Concepts that passed through all three rounds of screening were included in the draft alternatives.

This chapter defines concepts and design assumptions and outlines the screening process used to evaluate the concepts, as well as the process used to package alternatives. Details of the alternatives are discussed in Chapter 5.

Concepts

A concept is big picture idea that has been developed to solve a problem. Some examples of concepts generated in this process include adding parking and pull-off areas to the Loop Road, erecting changeable message signs, building a visitor center, adding travel lanes, changing the direction of traffic flow and providing alternative transportation systems.

The concepts developed for Cades Cove were far ranging and related to trails, camping, picnic facilities, roadways, safety, the enforcement of rules, park staffing, education, and restrooms, as well as many other facilities. A detailed description of how the major concepts would meet the Opportunities Plan’s goals and objectives is provided in Chapter 5.

The Screening Process

Another important step in the planning process is to identify criteria. **Criteria are elements by which the alternatives (and discrete elements of**

alternatives known in this process as “concepts”) could be evaluated for their reasonableness and feasibility, among other factors.

During the public scoping review of the problem statements, the evaluation criteria were discussed in facilitated break-out sessions. The project team emphasized at this meeting that evaluation was necessary to establish a reasonable set of concepts that could be incorporated into the alternatives.

Each concept was screened through a three-tiered evaluation process.

The **first** level of screening evaluated concepts against existing NPS policies, mandates and goals. The questions included:

- What NPS or legislative mission/mandate or policy does the concept address or, conversely, violate?
- Does the agency have the authority to address the issue, and, if so, what is its authority?

The **second** level of screening evaluated concepts against the goals and objectives of the Opportunities Plan. This involved asking such questions as:

- Does the option conform to or conflict with the project goals and objectives for resources?
- Does the option conform to or conflict with goals and objectives for visitation?

The **third** level of screening was entitled the “fatal flaw analysis.” Here, concepts were screened against National Environmental Policy Act (NEPA)-related criteria of reasonableness and appropriateness. This step involved identifying positive and negative impacts on resources, the visitor experience and the gateway communities. Analysis included consideration of the ability of existing Park infrastructure to support the concept and whether the options were economically viable. This evaluation was based on available data and decisions were made conservatively. The evaluation of concepts will continue through the EIS phase of the process.

The following questions are examples of those considered at this stage of the evaluation:

- How would resources or the visitor experience be affected positively or negatively?
- Can the concepts be supported by existing infrastructure?

How the concepts were screened

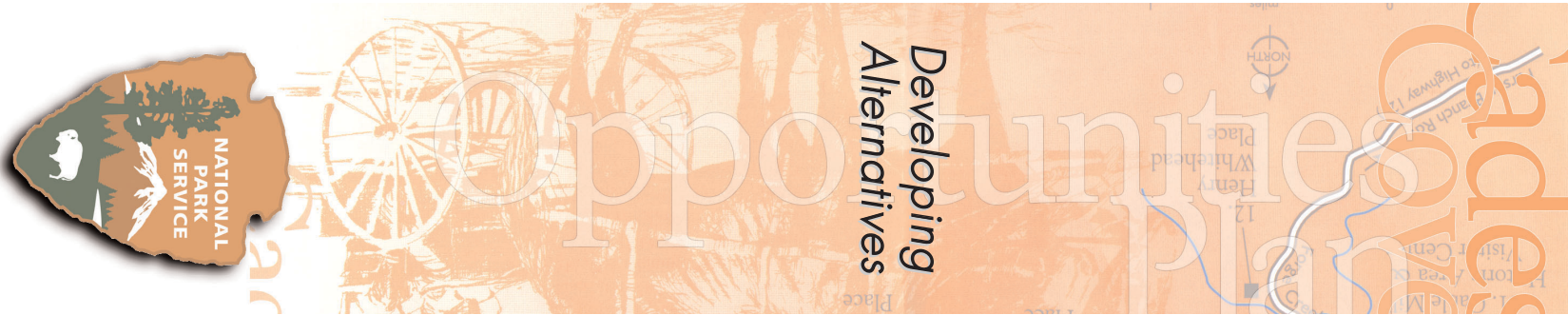
To better understand how the core team decided whether to reject concepts or move them forward, three examples of the evaluation process are outlined here.

One suggestion from the public was to charge an entrance fee. Enacting such a fee would require legislation by the State of Tennessee and/or Congress because the deeds that transferred land from the State of Tennessee to the federal government to establish the Park prohibit the collection of tolls or license fees on state highways 71 and 73. Congress also has dictated that, unless entrance fees are charged on main highways and thoroughfares, fees cannot be charged for entrances on other routes into the Park or any part of the Park (16 USC §4601-6a(a)(3)). For these reasons, this idea was eliminated in first level of evaluation.

Another suggestion was to add a second lane to the Loop Road. Under this concept, the Loop Road would have to be widened according to NPS road design standards, which require 11 feet for a travel lane and four feet for shoulders. Another foot for the inside travel lane is recommended on sharp curves, especially where the use of large vehicles is common.

The project team considered a second lane as an option to increase the road’s vehicle capacity. Because this concept did not conflict with National Park Service policies, mandates or goals, it was moved on into the second round of evaluation.

The Loop Road is an integral part of the Cove’s cultural landscape, with an alignment and width consistent with the roads that existed before the Park was established. The curves and narrow width are integral to how visitors experience the Cove.



Developing Alternatives



Widening the road would change this experience and make the road less compatible with its historic characteristics. A wider roadway also would alter scenic vistas. Moreover, adding 15 to 19 feet of pavement for the length of the road would be detrimental to wildlife, vegetation and possible archaeological sites. For these reasons, this concept was determined not to meet the project goal of providing exceptional visitor experiences that respect the natural and cultural resources of Cades Cove.

Given the above reasons, this concept did not pass the second round of screening and became a “considered but rejected” option.

One concept that passed through all three levels of screening involved the creation of a bicycle and pedestrian path. The original comment suggested that the path be located adjacent to the Loop Road, but project team members voiced concerns similar to the problems associated with adding a second lane to the Loop Road. Traffic engineering and safety concerns also arose in relation to locating the path in such a location. Commonly accepted design standards suggest that bicycle/pedestrian paths be located next to a roadway only where there are few access points (driveways, pull-offs), and where no other route is available.

The potential to introduce a new way for the visitor to experience the Cove was appealing, however. Instead of locating the path next to the Loop Road, several members of the core team suggested a path could be located along some of the historic farm roads that crisscross the valley floor.

This idea is consistent with NPS policies and mandates, project goals and objectives, and meets the NEPA criteria of reasonableness and appropriateness. Such a path could provide access to several historic structures as well as to the Cable Mill area.

After the alternatives had been drafted, the project team generated a list of elements that could be fit into any of the alternatives. Adding a bicycle and pedestrian path on historic farm roads was one such element.

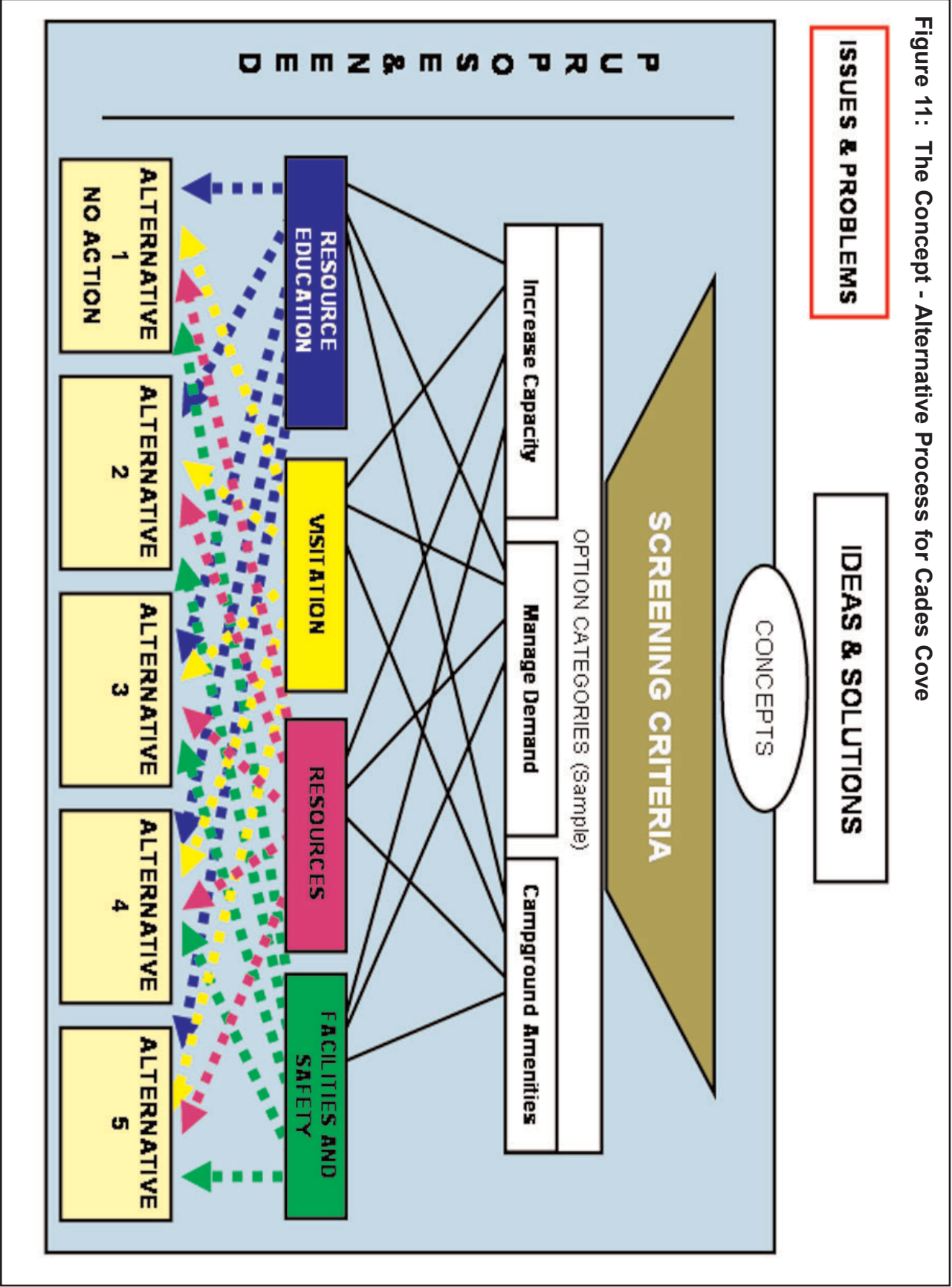
Developing the Alternatives

After the evaluation process, the project team reviewed the list of concepts that met the criteria. The concepts were divided into categories such as “concepts that manage demand,” “concepts that increase capacity,” and “campground concepts.” These separate elements then were combined into comprehensive draft alternatives that provide an overall picture of how Cades Cove will be managed to achieve the plan’s goals. Figure 11 illustrates the process through which those alternatives were generated.

Each alternative was built around the themes of visitation (motorized and non-motorized), resources (natural and cultural), resource education (visitor orientation), and facilities and safety (picnic and campground areas, campstore, horse operations, park operations, and utilities/visitor comfort).

The “no action” alternative also must be considered under NEPA regulations. Additionally, four draft “action” alternatives were developed, ranging from very little change in current management of the Cove to significant change.

The project team matched access concepts with strategies that provided the best fit for the goals.



Developing Alternatives





For example, all of the minimal development solutions were packaged together into a “low” development alternative, which could then be compared to “moderate” and “high” development alternatives.

Once the range of different combinations of management alternatives had been developed, the team compared each alternative to existing conditions to assess the magnitude of change that would be required with implementation of each alternative. For example, on the high end, prohibiting private vehicles on the Loop Road would create the need for parking at the entry to the Cove and therefore would create the opportunity for a visitor center, which could include an in-depth interpretive experience. On the low end, developing a master circulation plan for pull-offs and parking would call for a less intensive visitor contact point.

Some concepts were important enough to the overall visitor experience to be included in all draft alternatives. For example, a communications system to inform the public about conditions within the Cove was included in each alternative (except the no action). A master pull-off and parking plan was also included in every “action” alternative. Other concepts were considered to be optional if they would not resolve issues but might have a positive effect on some aspect of the visitor experience.

The project team worked through the concepts and developed alternatives that began with the no action alternative (Alternative 1). The team then added concepts that would have a minimal effect on existing visitor activities. Alternative 2 thus included actions to improve the pull-off and parking areas around the Loop Road and increase communication to visitors as a way to manage visitation.

Once these “base” alternatives were identified, concepts were added to create other alternatives in a manner that increased the level of visitor management in a stair step fashion. Therefore, Alternative 3 includes a reservation system, Alternative 4 introduces voluntary alternative transportation and Alternative 5 introduces mandatory alternative transportation.

A graphic representation of the process used to develop the alternatives is provided in Figure 13. The concepts that passed through the screening process were reviewed, refined and packaged in a first cut of draft alternatives presented to the Park Management Team for its review. Further refinements then were made based on this input, and the draft alternatives were presented at a round of public scoping meetings in the communities surrounding the Park. Information on these alternatives also was posted on the project website. Each alternative is discussed in detail in Chapter 5.

Considered but Rejected Concepts

Throughout the public involvement process, hundreds of comments and recommendations were received about the future of Cades Cove. Many of these ideas were rejected through the screening process described in this chapter. See Appendix K for a chart detailing these “considered but rejected” concepts.