

Conceptual framework for managing ecosystem resources

There has been considerable conversation among members of the Technical Work Group, the Strategic Plan small groups that are assisting with targets, and the Strategic Plan ad hoc regarding whether there should be a single, overarching conceptual framework (i.e., ecosystem integrity) for developing the Strategic Plan, or whether we should retain the multiple single-resource approach that has been used in the past. Southwest Rivers believes that a single framework is essential for setting reasoned targets, resolving inherent conflicts between resources, and completing a lucid Strategic Plan, and that the ecosystem integrity framework is the appropriate framework. This document provides our rationale.

The AMP mandate from the Grand Canyon Protection Act, ROD, and AMWG Charter is to provide advice and recommendations to “protect, mitigate adverse impacts to, and improve the values for which Grand Canyon National Park and Glen Canyon National Recreation Area were established.” Our Vision-Mission statement emphasizes that we must do this consistent with “the federal trust responsibilities to Indian tribes, in compliance with applicable federal, state, and tribal laws, including the water delivery obligations of the Law of the River, and with due consideration to the economic value of power resources.”

It is critical to our task to identify the values for which the park units were established. These values arise from legislation including the NPS Organic Act of 1916, the NPS General Authorities Act of 1970, and amendments to the General Authorities Act enacted in 1978. The values for which Grand Canyon National Park and Glen Canyon National Recreation Areas were established include: the “biological and physical processes that created the park and continues to act upon it;” “natural landscapes;” “native plants and animals;” and many others.¹

In contrast, the values of the park units do not include non-native species. NPS policy states that any “species that have moved or may move onto park lands directly or indirectly as the result of human activities are not considered native.” It is Park Service policy to manage, up to and including eradication, exotic plant and animal species whenever such species threaten park resources or public health and whenever control is prudent and feasible. Exotic species threaten park resources when they are interfering with “natural processes and the perpetuation of natural features, native species or natural habitats.”

Consistent with the legislation establishing the values of natural ecosystem patterns and processes, management must “... maintain all the components and processes of naturally evolving park ecosystems, including the natural abundance, diversity, and ecological integrity of the plants and animals.” This ecosystem integrity approach is equivalent with the GCPA mandate to “protect, mitigate adverse impact to, and improve the values...” because the Act did not alter the purposes for which the park units were established.

It is clear that we cannot return all ecosystem patterns and ecosystem processes to operate within their range of natural variability. However, in general, we can significantly increase ecosystem integrity by restoring a greater degree of “naturalness” to the river than what exists today. Similarly, Park Service policy recognizes that ecological patterns and processes may need to be actively managed to “maintain the closest approximation of the natural ecosystem in situations in which a truly natural system is no longer attainable.”

¹ Quotes on park policy are from: NPS. 2000. *Draft Management Policies*. Available from http://www.nps.gov/refdesk/DOrders/draft_mgtpol.html.