

## *Deviations*

### DEVIATIONS FROM THE NATURAL PATTERN AND PROCESS MANDATE

The Strategic Plan has deviated from a natural pattern and process framework in the following manner.

1. **Food base.** In the initial stages of developing the strategic plan, we agreed that the integrity paradigm for food base was not appropriate because the naturally occurring food base cannot be restored. For this resource, we need to test alternative approaches.
2. **Riparian.** In the riparian issue paper, the ad hoc group agreed that we should attain and maintain viable examples of the native biotic communities, but we should also maintain some examples of the naturalized biotic community, especially where it provides habitat for southwestern willow flycatcher. Targets for maintaining the abundance and distribution of the riparian communities needs to allow for the temporal changes due to flood events and subsequent reestablishment and succession.
3. **Trout.** The Strategic Plan's goal for trout is not considered a significant deviation from our natural pattern and process paradigm because if a conflict occurs between trout and park values, trout values are secondary. This approach is consistent with NPS policy, and it is used in both the issue paper on trout and native fish, and in the goal.
4. **Geomorphology.** Although it is not stated in an issue paper or goal, MOs are constrained because of the retention of sediment in Lake Powell. Although we may be able to mimic some aspects of the natural pattern, we probably cannot mimic fundamental aspects such as the abundance of sediment without sedimentation augmentation.
5. **Hydrology.** Establishing targets for hydrology is different from our approach to other ecosystem patterns and ecosystem processes because the targets are already set by the operating criteria. The Secretary chose the Modified Low Fluctuating Flow Alternative (with an additional change) which "provide[s] some of the dynamics of a natural system." If we cannot achieve the intent of the GCPA using the current operating criteria, along with other resource management actions, then the charge for the AMP is to develop recommendations for appropriate changes.

In summary, the existence of the dam limits to some degree the natural patterns and processes that we can achieve. However, we can restore many of the characteristics of a natural ecosystem through dam operations and other management actions.