

# Wilderness Within the Context of Larger Social and Biophysical Systems

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If we have learned anything since the National Wilderness Preservation System was first formally established in 1964, it is that it exists within a larger context of biophysical and social change and influence. The ever-changing character of ecosystems, shifts in social-demographic characteristics, changes in climates, and the vicissitudes of society's orientation toward nature present challenges for the protection of areas formally designated as wilderness. Conversely, wilderness is linked to the surrounding natural, political, and cultural landscapes; the presence of wilderness influences the economics and quality of life in local communities. Wilderness may serve as a refuge for wildlife populations that cross wilderness boundaries.

Because wilderness is linked to its surroundings, our attempts to protect natural processes and conditions and to ensure that wilderness remains untrammelled raise significant and socially problematic questions about the linkages between wilderness and its connection with larger scale social and biophysical processes.

Many of these questions are greatly influenced by boundaries and the respective, and often incompatible, institutional mandates of the agencies involved on each side of the boundary. While political and jurisdictional boundaries often have good historical foundations, in many cases the boundaries, even among contemporary wilderness designations, do not coincide with those appropriate for the free play or management of ecological processes, such as natural or anthropogenic fire, wildlife migration, and pathogenic influences. For example, fires that once started outside what is now designated wilderness are suppressed, with resulting vegetation change inside wilderness. Fire management and suppression policies may or may not coincide with wilderness boundaries, complicating decision processes and raising uncertainty as to policy and consequences. Designation of wilderness immediately adjacent to urbanizing areas, such as the Pusch Ridge Wilderness next to Tucson, Arizona, makes implementing policies that restore natural processes and conditions difficult at best. Even restoration of endemic species in such relatively remote areas as the Selway-Bitterroot Wilderness astride the Montana-Idaho state line become embroiled in controversy, in part because nearby growing human populations feel threatened.

Still-evolving attitudes toward management of wilderness and natural fire have changed dramatically since the National Wilderness Preservation System was established, influencing the acceptability of management practices. Forty years ago Walter Firey noted that land management policies must be economically feasible, ecologically possible, and culturally adoptable. Cultural mores, norms, and philosophies toward nature, protected areas, and wilderness have changed dramatically and will likely change in the future. In this sense, problems never stay solved because the context changes. Such factors influence the acceptability of various management policies.

Thus, external processes, be they policy, economics, cultural, or biophysical, condition the presence and management of wilderness. This volume addresses many of the questions and issues confronting wilderness within this dynamic and often unpredictable context. The papers are organized into five sections. The first includes three overview papers that assess the state of knowledge concerning links between wilderness and its larger context. Peter White reviews ecological disturbance processes and the issues associated with dealing with them as they cross jurisdictional boundaries. Gundars Rudzitis and Becky Johnson deal with a developing set of questions that concern the relationship between human population demographics and growth and wilderness. John Loomis assesses what we know about the economics of wilderness recreation and passive uses of wilderness.

Research papers offered at the conference are found in the next three sections. Many of these papers deal directly with contextual factors, affecting how not only wilderness is perceived and managed, but which also place pressures on the presence of wilderness and other similar protected areas. Section two includes several papers that explore and examine meanings of wilderness and the consequences of different interpretations. Papers linking wilderness with larger ecological processes and conditions are found in section three. Many of these papers examine methods for identifying potential wilderness areas. A variety of economic, social, and policy questions that influence how wilderness is managed and debated in contemporary society are examined in the papers located in section four.

The fifth section of this volume contains reports resulting from several dialogue sessions that occurred during the conference. Each of these papers summarizes the dialogue session, although the format varies from paper to paper. Please note that the paper by Cawley was presented as a formal paper within a dialogue session concerning protection of large reserves; no summary paper was submitted for that session.

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