

Barriers and Opportunities for Cooperative Wetland Management: A Case Study in the Greater Rocky Mountain National Park Ecosystem

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Abstract

The boundaries of most protected areas are not large enough to encompass natural processes such as hydrologic and ecological connections between wetlands and within watersheds. Therefore, management is likely to be improved by working across boundaries with multiple jurisdictions. This research explores barriers and opportunities for cross-boundary cooperation for wetland stewardship in Rocky Mountain National Park (RMNP), Colorado, USA, and surrounding areas, using semi-structured interviews with staff members of government agencies, nonprofits, research organizations, and municipalities. Results show that wetlands outside of RMNP are experiencing similar cross-boundary disturbances to those within the park. Although participants recognize that working cooperatively with neighboring jurisdictions can decrease the effects of boundaries on wetland integrity, they also reported that the most significant cross-boundary challenge is working with others to exchange resources, develop a common goal, and implement projects cooperatively. We provide recommendations on how to address cooperative management challenges while taking advantage of opportunities to facilitate cross-boundary wetland stewardship at the ecosystem-scale.

Full Text

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Figures

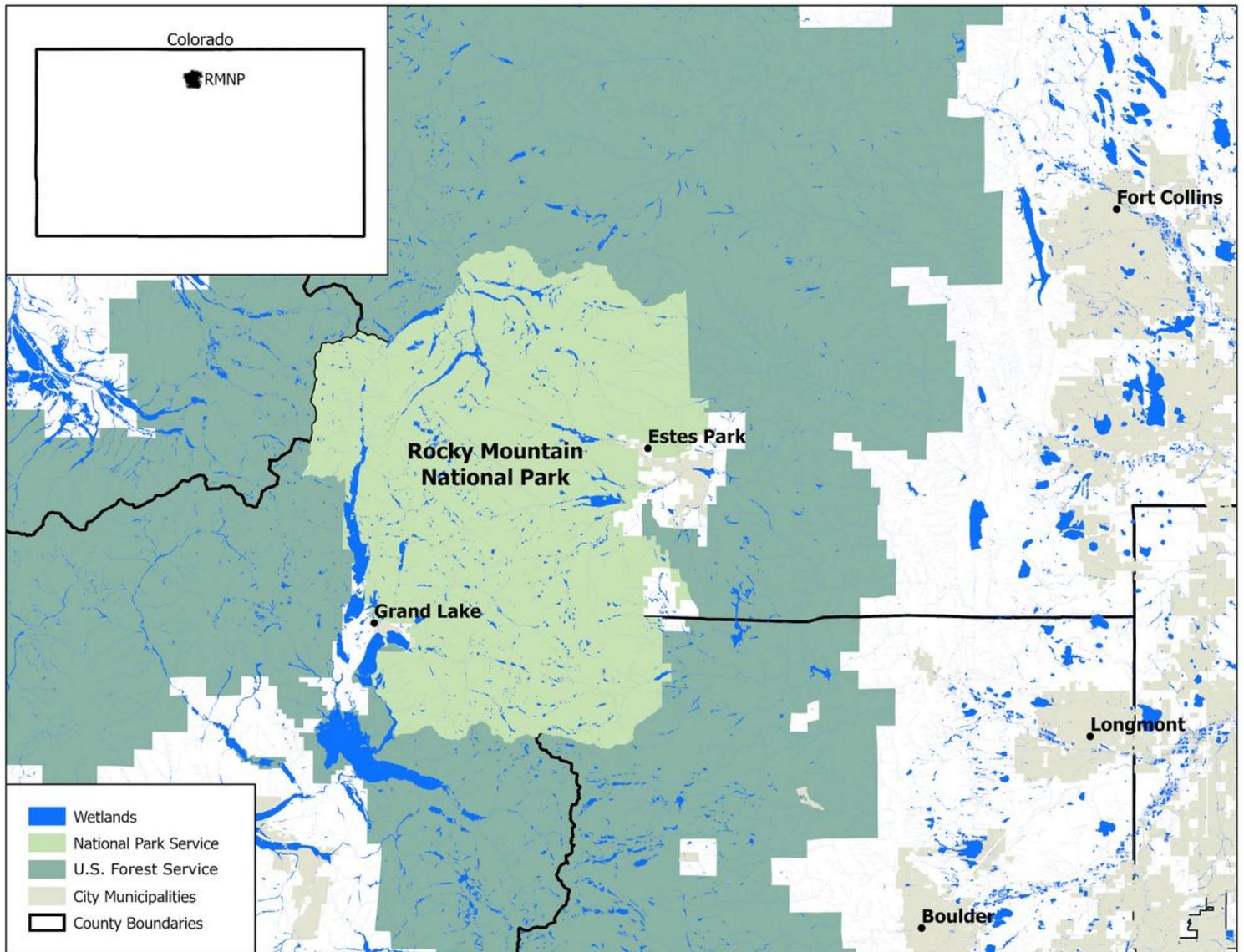


Figure 1

Hydrologic connections between wetlands span many jurisdictional boundaries in the greater RMNP ecosystem including counties, cities, U.S. Forest Service, and National Park Service. Wetland data was downloaded from the U.S. Fish & Wildlife Service's National Wetlands Inventory. Note: The designations employed and the presentation of the material on this map do not imply the expression of any opinion whatsoever on the part of Research Square concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. This map has been provided by the authors.



Figure 2

Conceptual model of themes for barriers and opportunities for cooperative wetland management.

Barriers and Potential Solutions to Cooperative Management	
Barriers	Solutions
Limited Resources	<ul style="list-style-type: none"> ✓ Develop cooperative agreements to share resources ✓ Apply for funding opportunities together ✓ Extend your impact by working with others
Differing Missions and Goals	<ul style="list-style-type: none"> ✓ Different missions can bring different skills and expertise ✓ Identify overlapping goals ✓ Utilize a boundary spanner
Organizational Silos	<ul style="list-style-type: none"> ✓ Incorporate cooperation into job training ✓ Provide incentives and support for cooperative efforts ✓ Learn from other organizations
Public Perception	<ul style="list-style-type: none"> ✓ Conduct community outreach ✓ Understand requirements and timelines of other organizations
Sustainability	<ul style="list-style-type: none"> ✓ Build trust ✓ Honest and transparent communication
Lack of cooperative program	<ul style="list-style-type: none"> ✓ Develop a boundary spanning organization

Figure 3

Potential solutions for practitioners to overcome barriers to cooperative wetland management