

Rocky Mountain Conservancy

Project Brief

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BACKGROUND

Rocky Mountain Conservancy (RMC) is a non-profit organization that has partnered with Rocky Mountain National Park (RMNP) and similar public lands across Colorado and Wyoming since 1931 to promote stewardship of the park through education and philanthropy. RMNP covers over 415 square miles in the heart of the Rocky Mountains and is frequently among the top five most popular national parks in the United States.

RMNP is adjacent to a variety of public, private, and federal land, including a number of private properties within the park (also called inholdings). This can present a range of challenges related to conservation and management efforts, including urban encroachment, habitat degradation, incompatible land use, and safety and access issues.

Another challenge arose from the adoption of the 1984 Land Protection Plan (LPP), a requirement of all units in the National Park System that contain non-federal or private property (inholdings), including RMNP. The LPP prioritized all existing non-federal properties according to a set of protection categories describing various actions required by park management to protect the park as a whole. The LPP continues to be the guiding document that drives park management's decisions around conservation, however, this document has never been translated into a digital, visual format.

PURPOSE

1 To provide RMC and RMNP staff with an interactive GIS map that includes consolidated data for all properties in and adjacent to RMNP. The map will provide RMC with the tools necessary to quickly access accurate information about the relevant properties without having to sift through records from multiple counties, other public data, or National Park Service (NPS) GIS data, resulting in increased efficiency and productivity.

2 To digitize the Land Protection Plan (LPP) by incorporating all relevant data into a GIS map which will be used to identify areas where RMC and RMNP can make recommendations to support ongoing conservation efforts. For example, some items on the LPP which were originally categorized as low priorities would now be considered higher priorities because the high-priority items of the past have already been addressed. Mapping the LPP will give RMNP staff a tool to quickly and easily view up-to-date information that reflects the current reality of land ownership and make informed land protection decisions.

Our goal was not simply to catalog properties, but to provide a better way to build and nurture healthy, reciprocal relationships with private landowners. This type of relationship can be highly beneficial for RMC, RMNP, property owners, and the iconic lands and waters that have inspired visitors for thousands of years.

METHODS

In order to create a comprehensive map of properties in and adjacent to RMNP, our team had to consult several sources (see diagram to the right). Data from these sources had to be analyzed, consolidated, and formatted into a single uniform database using ArcGIS Pro. The bulk of this project was spent ensuring that the data, symbology, and other visual characteristics were tailored to fit our partner's specific needs.

After receiving approval of our final product, all files were imported into a private group on ArcGIS Online (AGOL). Finally, these files were used to create a streamlined web application allowing our partner's to easily access and use our product from any computer, tablet, or phone.

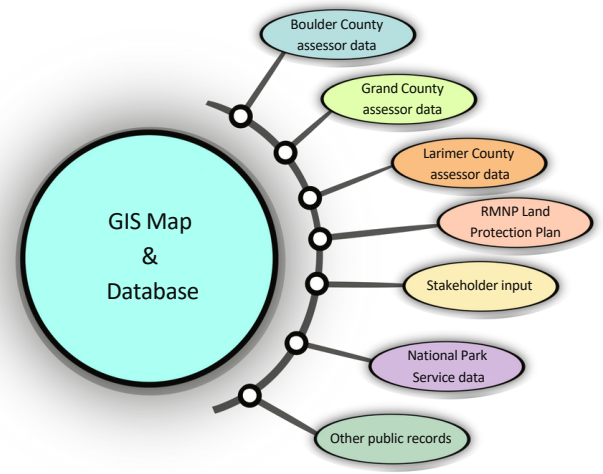
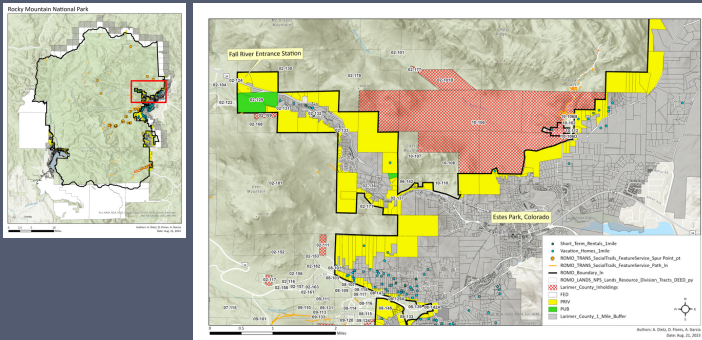


Diagram 1: Data sources

OUTCOMES

1 GIS Map & Database

- Maps and associated databases were shared with our partner organization using ArcGIS Pro, ArcGIS Online, and a searchable web application.
- All data included in the database was also converted into a separate Excel file.



2 Digitized Land Protection Plan

- Fully digital version of RMNP's Land Protection Plan (LPP), including information from the original 1984 plan and addendums from 1988 and 1991. The information our team digitized reflects the most up-to-date LPP which RMNP continues to reference in the present day.

3 Updated RMC Project Impact Map

- Updated the impact map with RMC's most recently completed projects in land protection, trail improvements, conservation corps and the location of educational programs.

4 Detailed Methodology Document

- Produced methodology document detailing data compilation process along with an easy-to-understand "user manual".

How will this project help Rocky Mountain Conservancy?

- Increase efficiency among RMC and RMNP staff
- Increase conservation-focused education opportunities with visitors to the region
- Create greater opportunities for public and private partnerships
- Increase understanding of conservation priorities
- Increase donor base



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