

University of Wyoming National Park Service Research Center Annual Report

Volume 37

Article 16

1-1-2014

Water Resources Internship Report: Grand Teton National Park

Mathew Rouch

Virginia Commonwealth University

Follow this and additional works at: http://repository.uwyo.edu/uwnpsrc_reports

Recommended Citation

Rouch, Mathew (2014) "Water Resources Internship Report: Grand Teton National Park," *University of Wyoming National Park Service Research Center Annual Report*: Vol. 37 , Article 16.

Available at: http://repository.uwyo.edu/uwnpsrc_reports/vol37/iss1/16

This Intern Report is brought to you for free and open access by Wyoming Scholars Repository. It has been accepted for inclusion in University of Wyoming National Park Service Research Center Annual Report by an authorized editor of Wyoming Scholars Repository. For more information, please contact scholcom@uwyo.edu.

WATER RESOURCES INTERNSHIP REPORT: GRAND TETON NATIONAL PARK



MATTHEW ROUCH
VIRGINIA COMMONWEALTH UNIVERSITY ♦ RICHMOND, VA



♦ PROJECT SUMMARY

The objective of this project was to consolidate all previous work on water rights in the park into a single geodatabase that could be updated and built on in the future. Priority areas specifically for this project were Cottonwood and Spread Creeks, with the goal being to identify all water rights and associated ditches being diverted off of these creeks.

♦ METHODS

The duration of this project was 8 weeks, from May-July of 2014. The first 4 weeks consisted of field work involving the mapping of irrigation ditches in priority areas. Miles of ditches were walked and mapped and compared to historical plat maps and previous mapping work done by the park. The last 4 weeks involved researching all associated water rights with priority areas using historical maps and the

Wyoming State Engineer's Office e-Permit website. In addition, all previous mapping work related to water rights was combined and edited in a single shapefile and placed in a geodatabase.

♦ RESULTS AND DELIVERABLES

- GIS geodatabase with one primary layer for each water right feature, one line-file for ditch lines and one point-file for diversion structures. It includes all previous mapping work and current mapping work from this project.
- Excel database which combined all previous water rights data and newly identified water rights in this project which was combined with layers in the geodatabase.

◆ **RECOMMENDATIONS**

It seems as though there had been a lot of good solid work done in the park over the last 15 years related to mapping irrigation ditches, however none of it was ever synthesized. This led to redundant mapping projects and unorganized data storage and management. The objective of this project was to alleviate some of the problems associated with

scattered and cryptic data sources. It is highly recommended that the geodatabase created from this project be the primary source for water rights data in the park and that all future projects and users utilize this resource.