ROCK CREEK RANCH – A PLACE FOR RESEARCH, EDUCATION AND OUTREACH AT THE INTERSECTION OF SOCIETY'S COMPETING DEMANDS AND DESIRES

JOHN FOLTZ

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Public lands, including federal land owned and managed by the Bureau of Land Management (BLM) and the U.S. Forest Service, account for over 60 percent of the land in Idaho (Figure 1.). Land owned and managed by the Idaho Department of Lands (IDL) account for approximately an additional 5 percent of Idaho's total acreage. Much of this land has historically been managed for multiple objectives—livestock grazing, recreation, wildlife habitat improvement and other goals. While different stakeholder groups

^{*} Dr. Foltz is Special Assistant to the President for Agricultural Initiatives, Dean Emeritus, College of Agricultural and Life Sciences and Professor, Department of Agricultural Economics and Rural Sociology, University of Idaho, Moscow, ID.

^{1.} David Johnson & Pratheek Rebala, Here's Where the Federal Government Owns the Most Land, TIME (Jan. 5, 2016), http://time.com/4167983/federal-government-land-oregon/; A New Century of Forest Planning, FORESTPOLICYPUB.COM, http://forestpolicypub.com/idaho/ (last visited Feb. 15, 2017).

^{2.} About Us, IDAHO LAND BOARD, DEP'T OF LANDS, https://www.idl.idaho.gov/land-board/about-idl/index.html (last visited Feb. 15, 2017).

might argue that at first glance, these objectives seem to be opposing or at odds with each other—there has been a growing understanding amongst some that with discussion, flexibility, and a better understanding of some of the tradeoffs involved—that these objectives can co-exist in balance. In fact, there is a strong possibility that with thoughtful and careful management these objectives can mutually enhance each other.

I. ROCK CREEK RANCH

Rock Creek Ranch is comprised of "nearly 10,400 acres of privately-owned land, adjacent to an additional 11,000 acres of publicly-owned land in the Wood River Valley," located just north of Magic Reservoir (see Figure 2). The Harry Rinker family bought the ranch in the 1980s and continued the long-time practice of grazing the land. In 2013 the family began looking for ways to preserve the land. The Natural Resource Conservation Service (NRCS – a subunit of the U.S. Department of Agriculture) purchased the development rights in 2014 and shortly thereafter the ranch was purchased by the Wood River Land Trust (WRLT) and The Nature Conservancy (TNC) at a below-market sales price. The University of Idaho (UI) was invited as a partner to expand the research and outreach opportunities of this property, and signed a Memorandum of Understanding on May 12, 2016 outlining the objectives of a collaborative partnership with TNC and

^{3.} Rock Creek Ranch FAQs, UNIV. OF IDAHO, (June 2016), https://www.uidaho.edu/~/media/UIdaho-Responsive/Files/cnr/rangeland/rock-creek/Rock-Creek-Ranch-FAQ-Final.ashx [hereinafter FAQs]; see also Idaho: Rock Creek Ranch, THE NATURE CONSERVANCY, http://www.nature.org/ourinitiatives/regions/northamerica/united-states/idaho/placesweprotect/id-rock-creek-ranch-profile.xml (last visited Apr. 17, 2017).; see also Projects, WOOD RIVER LAND TRUST, http://woodriverlandtrust.org/projects/ (last visited Apr. 17 2017).

^{4.} FAQS, *supra* note 3, at 1.

^{5.} *Id*.

^{6.} *Id*.

WRLT.⁷ The desired goal is for the university to eventually own the deeded acres and to continue the collaborative partnership.⁸

"The collaboration allows for a live demonstration of how conservation and sustainable ranching can work together to provide healthy landscapes for generations to come." Active and relevant data on best management practices obtained through research on this property can be directly applied across the state and the region. Rock Creek Ranch provides an extremely unique "laboratory" to investigate the tradeoffs involved in managing this resource for diverse multiple uses. 11

"WRLT and TNC will ensure that the property will serve the community with access for hiking, mountain biking, wildlife viewing, cross-country skiing, hunting, snow shoeing and snowmobiling." 12 "Trails for these traditionally limited or undesignated activities are now mapped and some may be subject to seasonal closures due to wildlife and habitat protection or other needs." 13

"Like 50 percent of Idaho, Rock Creek Ranch is rangeland. What [the University of Idaho] learn[s] at Rock Creek will provide valuable insight into how to conserve rangelands, improve economic return, enhance wildlife habitat and sustainably meet the needs of a variety of land users." Conserving our resources, better understanding best practices of land management, and providing

^{7.} Memorandum of Understanding Between University of Idaho Wood River Land Trust and The Nature Conservancy, UNIV. OF IDAHO (May 2016), https://www.uidaho.edu/~/media/UIdaho-Responsive/Files/cnr/rangeland/rock-creek/Rock-Creek-Ranch-Signed-MOU.ashx [hereinafter MOU].

^{8.} *Id*.

^{9.} FAQs, supra note 3, at 1.

^{10.} See id. at 2.

^{11.} See id.

^{12.} *Id.* at 1.

^{13.} *Id*.

^{14.} *Id.* at 2.

research data to benefit landowners across the state benefits the entire state—economically and socially.

As Idaho's land-grant university, the University of Idaho has research centers and study sites across the state. ¹⁵ The UI mission is to provide research, teaching and outreach to serve the citizens of the state of Idaho. ¹⁶ "Rock Creek will benefit undergraduates studying rangeland management, as well as graduate students who will have access to this research site." ¹⁷ The UI Rangeland Center, a research and outreach partnership of the UI's College of Natural Resources (CNR) and College of Agricultural and Life Sciences (CALS), will also lead community, landowner and industry tours, educational seminars and more on the land. ¹⁸ An advisory committee of key stakeholders (listed below) is engaged to provide research and management suggestions. ¹⁹

II. THE RANCH

Ecologically, Rock Creek Ranch is comprised of sagebrush steppe, aspen groves, riparian areas, and wet meadows.²⁰ "It is an important scenic viewshed, and an essential open space for migratory animals including ungulates and sage grouse. This open space is also an important asset to the local community who have enjoyed recreating there for decades." ²¹ The Rock Creek watershed includes 89 miles of perennial and intermittent streams.²² "There are 34.5 miles of "ranch" roads that can be used for hiking, horseback riding, and hunting. These roads are primarily unmaintained double-track roads; some are suitable for administrative motorized use

^{15.} See Rangeland Center: Current Projects, UNIV. OF IDAHO, https://www.uidaho.edu/cnr/rangeland-center/projects (last visited Apr. 17, 2017).

^{16.} See Rangeland Center: Mission and Vision, UNIV. OF IDAHO https://www.uidaho.edu/cnr/rangeland-center/about/mission (last visited Apr. 17, 2017).

^{17.} FAQs, supra note 3, at 2.

^{18.} *Id*.

^{19.} Id.

^{20.} Scott Boettger, et al., Public Access Working Group Management Plan (Jan. 9, 2017) (unpublished committee notes) (on file with author).

^{21.} *Id*.

²² Id.

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on ATV or in a truck, while others have become increasingly overgrown or have eroded over time."²³ "The entire ranch is open to the public through Idaho Department of Fish and Game's Access Yes! program for deer, elk, pronghorn and upland game hunting."²⁴

It is the goal of the partners to conduct livestock grazing management and perform infrastructure improvements in such a manner that allows Rock Creek Ranch to serve as a template for healthy management of rangelands and as a platform for exploring how working ranches can coincide with sage grouse, fish, wildlife habitat conservation and public recreation use.²⁵

III. PROPOSED WORK

The scope of work at Rock Creek Ranch will be broad, but will focus on the general objective of researching and quantifying some of the issues important to society in the area of wildlife habitat improvement, livestock grazing, and recreation. ²⁶ The research planned will look at livestock grazing and how timing, intensity of use and other factors affect land, water, forage, and brush cover. ²⁷ For example, grazing lush pastures early in the spring may be beneficial for cattle, but then we may find that irrigating them and then **not** grazing them in late summer or early fall leaves more forage for wildlife (elk, deer, moose, etc.). Scientists from CALS and CNR will also collaborate to look at the impact of grazing on forbs (herbaceous flowering plants that are not grasses, sedges, or rushes) and grasses and other habitat necessary for sage grouse. ²⁸

^{23.} *Id*.

^{24.} Id.

^{25.} See MOU, supra note 7, at 3-5.

^{26.} Id. at 3.

^{27.} See id. at 4.

 $^{28. \}quad \textit{See id}.$

Sage grouse is a species of particular interest due to its threatened status across the west.²⁹

Additional projects include habitat restoration such as streambank improvement and fish passage projects (removing passage detriments such as culverts with drops which fish cannot traverse). Other projects include water improvements to provide livestock and wildlife water in areas of the higher elevation pastures on the ranch. These have the benefits of making additional pasture available and preventing livestock from degrading riparian areas along Rock Creek. Riparian areas are defined as the interface between land and a river or stream. Riparian areas generally have a greater variety of species than other zones. Vegetation in the riparian zone contributes shade, food, and shelter for aquatic organisms. The riparian zone is also home to many animals that move between land and water, such as insects, amphibians, and waterfowl.

IV. A COOL AND USEFUL TECHNOLOGY

A new technology proposed for study at Rock Creek Ranch is a virtual fence for livestock.³⁶ The UI has recently signed a Memo-

32. Personal Communication with Prescott, Wyatt, Livestock Manager, Univ. of Idaho Rock Creek Ranch (February 24, 2017).

^{29.} See Grouse and Grazing: Effects of Spring Grazing on Sage-Grouse Populations, UNIV. OF IDAHO, https://www.uidaho.edu/cnr/rangeland-center/projects/grouse (last visited Feb. 15, 2017).

^{30.} See generally MOU, supra note 7, at 4.

^{31.} *Id*.

 $^{33. \}quad \text{Mindy Pratt}, \textit{What Are Riparian Areas?}, \text{ EXTENSION (Aug. 29, 2014)}, \text{ http://articles.extension.org/pages/62490/what-is-a-riparian-area.}$

^{34.} Water Quality: Riparian Zone, UTAH STATE UNIV., http://extension.usu.edu/waterquality/watershedinformation/riparian (last visited Apr. 3, 2017).

^{35.} *Id*.

^{36.} Geoff Manaugh & Nicola Twilley, *The Land of the Free: How Virtual Fences Will Transform Rural America*, THE ATLANTIC (Feb. 7, 2013), https://www.theatlantic.com/technology/archive/2013/02/the-land-of-the-free-how-virtual-fences-will-transform-rural-america/272957/.

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randum of Understanding with an Australian company named Agersens.³⁷ They have a very unique product called eSheperd, which is comprised of a collar for the animal and a ranch-based base station.³⁸ The technology utilizes global positioning satellites (GPS), which allows the user to draw a polygon on a satellite-based map—and then the eSheperd software converts that outline to GPS points.³⁹ These points become a "virtual" fence, so that if a cow moves within approximately 10 feet of the defined fence, the collar emits an audible sound; if the cow crosses the "virtual" fence line—it receives a mild electric pulse (less than an electric fence).⁴⁰ Just like an electric fence, animals learn by the second or third time that they need to stop or turn aside when they hear the sound.⁴¹ Such a "fence" is clearly very wildlife friendly—as there is no actual "fence."⁴² Research will investigate the animal welfare impacts, and the physical and economic efficacy of the technology.⁴³

V. OUTREACH AND EDUCATION

Outreach and education are also very key to the work done by the UI on the ranch. UI faculty and staff will be hosting a set of activities on the ranch to both engage and educate interested students and local residents.⁴⁴ Summer and early fall activities will include: a "Wild Day with Wildflowers," where participants will learn about plant identification and the value of different plants; "Birds of a Feather," where stakeholders will learn about birds,

^{37.} Agersens Working With University of Idaho, AGERSENS (Feb. 22, 2017), http://agersens.com/university-idaho/.

 $^{38. \}quad eShepard, {\it AGERSENS}, {\it http://agersens.com/eshepherd/ (last visited Apr. \ 3, \ 2017)}.$

^{39.} See id.

^{40.} Id.

^{41.} See id.

^{42.} Id.

^{43.} See id.

^{44.} See John Foltz, et al., Rock Creek Education Committee Report (Sept. 28, 2016) (unpublished committee notes) (on file with author).

their biology and place in the ecosystem; "Beavers and Streams," where faculty will discuss stream health and beavers' role in the stream ecosystem; "Earth, Rain and Fire," where scientists will discuss the impact of fire, and talk about soil erosion and water infiltration; "Cowboy Days," where faculty will offer "coffee with a cowboy" and talk about the importance of livestock and managing for multiple species.⁴⁵

Examples of education which have already occurred at the ranch include the Western Region Range Career Development Event (CDE) for the Future Farmers of America (FFA), which was hosted at the ranch by the UI Rangeland Center and the Idaho Rangeland Resource Commission (IRRC) in the fall of 2016. ⁴⁶ A total of 17 teams of the best and brightest agriculture students from Idaho, Nevada, Utah, and Wyoming were faced with four different stations as part of the contest, which included tackling a habitat improvement problem, ranking habitat for cattle, wildlife and forage diversity, and identifying plants and soils. ⁴⁷

VI. ECOSYSTEM SERVICES

A growing number of stakeholders are realizing the value of what economists and others call "ecosystem services." These services arise from the careful and attentive management of ranches such as Rock Creek Ranch. Such services include: a "viewshed," (mentioned above, but which can be defined as scenic natural beauty unobstructed by man-made roads or buildings); clean water—provided by careful management of grazing (such as keeping cattle out of riparian areas); improved wildlife habitat (provided by

46. Mike McKenna, Students Discover the Big Picture at Rock Creek Ranch, The Weekly Sun, Nov. 16–22, 2016, at 6, https://issuu.com/theweeklypaper/docs/binder2_4f7a464d9e7e15; FFA competes in Idaho, ELKO DAILY (Nov. 30, 2016), http://elkodaily.com/lifestyles/ffa-competes-in-idaho/article_0463e715-364e-55a3-9f40-46b0cefaea4a.html.

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^{45.} *Id*.

^{47.} McKenna, supra note 46, at 6.

^{48.} Ecosystem Services, NAT'L WILDLIFE FED'N, http://www.nwf.org/Wildlife/Wildlife-Conservation/Ecosystem-Services.aspx (last visited Apr. 3, 2017).

Personal Communication with Alex Echols, Executive Vice-President, Ecosystems Services Exchange (Feb. 27, 2017).

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erosion control, weed control, meadow management, culvert replacement, and other proactive strategies).⁵⁰

There are some economists and policymakers who have proposed that individuals and corporations may be willing to pay for some of these ecosystem services, to incentivise their delivery. The EcoSystems Services Exchange is a business whose mission is just that: "Working with private and public landowners, producers and facility managers to improve farm profitability while simultaneously improving and protecting our valuable ecosystem and natural resources—using a market-based approach." 52

Former Idaho State Representative Merrill Beyeler is a rancher from Leadore, Idaho who also sits on the Rock Creek Advisory Board as a member of the Central Idaho Rangeland Network (CIRN).⁵³ Merrill has a clear vision of how multiple land use goals can be achieved through careful planning and management, and is also a big proponent of ecosystems services.⁵⁴ He works to achieve these goals on his home ranch and has been recognized for this work.⁵⁵

VII. HOW WILL THE RANCH BE MANAGED?

^{50.} See generally Ecosystem Services Exchange: Valuing Conservation, ECOSYSTEM SERVICES EXCHANGE, http://www.ecoexch.com/ (last visited Apr. 3, 2017).

^{51.} Personal Communication with Alex Echols, Executive Vice-President, Ecosystems Services Exchange (Feb. 27, 2017).

^{52.} ECOSYSTEM SERVICES EXCHANGE, supra note 50.

^{53.} Candidate for Idaho State Representative in District 8, Seat B, MERRILL BEYELER, http://www.merrillbeyeler.com/ (last visited Apr. 3, 2017).

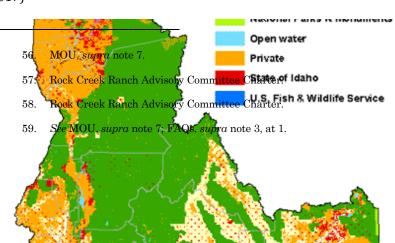
^{54.} See Steve Stuebner, Salmon River ranchers restore salmon streams in Upper Salmon Basin to provide homes for fish, LIFE ON THE RANGE, http://www.lifeontherange.org/assets/docs/range-stories/upper-salmon-river-basin/upper-salmon-river-basin-feature-story.pdf (last visited Apr. 3, 2017); see Governors Ag Awards 2016 – Merrill Beyeler, ELSBERGSTUDIOS, YOUTUBE.COM (Feb. 15 2016), https://www.youtube.com/watch?v=57sK2dnAkqA.

An advisory committee has been established with representatives from the key partners—the University of Idaho, the Wood River Land Trust, and the Nature Conservancy;⁵⁶ as well as the Idaho Cattle Association, the Natural Resource Conservations Service, the Central Idaho Rangeland Network (CIRN), the Idaho Soil and Water Conservation Commission, the Idaho Rangeland Resource Commission, the Idaho Department of Fish and Game, the U.S. Fish and Wildlife Service, and the Bureau of Land Management.⁵⁷ This committee meets quarterly to work on plans to implement and achieve the shared vision for the ranch.⁵⁸

Ultimately this project relates to the production and availability of food (provided by meat animals including cattle and sheep), balancing this with achieving other socially valuable objectives including improving wildlife habitat and offering outdoor recreational opportunities.⁵⁹ In addition, it illustrates the value of partnerships with interested parties coming together to achieve shared goals. It is the strong hope of the partners that the objective, research-based data gathered at Rock Creek Ranch will inform policymakers and be useful in either avoiding litigation or helpful in lawsuits should they occur.



Figure 1. Idaho Land Ownership (http://forestpolicypub.com/idaho, 2017)



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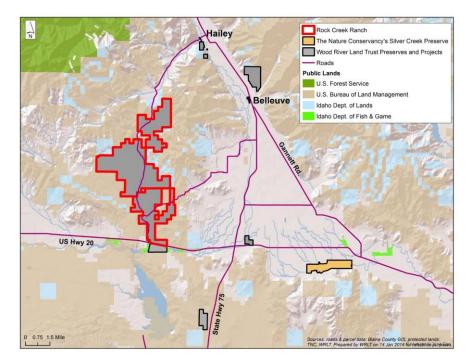


Figure 2. Location of Rock Creek Ranch, relative to Bellevue and Hailey, and showing surrounding public land owned by the U.S. Forest Service, the U.S. Bureau of Land Management, the Idaho Department of Lands and the Idaho Department of Fish and Game. (Wood River Land Trust, 2014).