

MEMORANDUM OF UNDERSTANDING
Between
GRAND CANYON TRUST
AND
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
UNITED STATES GEOLOGICAL SURVEY
AND
USDA, FOREST SERVICE
KAIBAB NATIONAL FOREST
AND
ARIZONA GAME AND FISH COMMISSION
AND
NORTHERN ARIZONA UNIVERSITY
AND THE
UNIVERSITY OF ARIZONA

TITLE: Kane and Two Mile Research and Stewardship Partnership

This Memorandum of Understanding (“MOU”) is entered into between the Grand Canyon Trust, hereinafter referred to as “GCT”, and its subsidiary North Rim Ranch, hereinafter referred to as “NRR”, the Bureau of Land Management, hereinafter referred to as “BLM”; the United States Geological Survey, hereinafter referred to as “USGS”; the USDA, Forest Service, Kaibab National Forest, hereinafter referred to as “U.S. Forest Service”; the Arizona Game and Fish Commission, hereinafter referred to as “Commission”; Northern Arizona University, hereinafter referred to as “NAU”; and the University of Arizona, hereinafter referred to as “U of A” (collectively “Parties” and singularly “Party”).

WHEREAS, the Parties recognize and encourage a continued commitment to create principles of cooperation and coordination among the signatories so that they may establish a research and stewardship program on the Kane and Two Mile ranches (“K2M”);

NOW, THEREFORE, it is the understanding of the Parties that:

I. PURPOSE:

The purpose of this MOU is to establish a research and stewardship program on K2M for the purposes of:

- 1) Designing studies that will address management questions relevant to federal lands and wildlife on the Colorado Plateau.
- 2) Encouraging cooperation and collaboration among federal and state resource management agencies with jurisdiction over the lands and resources within K2M, academic institutions, non-profit organizations, and the public for the benefit of federal lands.

- 3) Developing and disseminating science-based informational products (e.g., peer-reviewed articles, reports, and data) and tools that serve to enhance understanding of the ecological, social, and economic implications of land management practices.
- 4) Facilitating volunteer citizen-driven federal lands resource conservation and management.
- 5) Contributing towards formulating, testing, and demonstrating land management practices that sustain ecological resilience of federal lands on the Colorado Plateau, subject to federal, state, and local land use and policy making procedures.

This MOU documents the cooperation between the Parties and creates the principles of cooperation and coordination among the Parties for the purposes of the Partnership.

The research program will be driven by a rigorous research design developed with the assistance of independent third parties with expertise in forest, range and wildlife science programs and applied research. The research design will address specific management questions of interest to cooperating land and wildlife management agencies and other interested parties (see Attachment 1). This program will apply research results to formulate, test, and demonstrate practices that may contribute to long-term sustainability of native plant and wildlife communities while addressing livestock management needs.

Specific goals of the Partnership include:

- Goal 1: Establish a public-private partnership centered on the K2M that will develop, test, and deliver long-term perspectives and guidance to federal lands management challenges by bringing together citizens, scientists, and agencies to share human and financial resources and conduct rigorous management-relevant research.
- Goal 2: Bring added science and information-development capacity to land and wildlife managers to facilitate stewardship and/or restoration activities that achieve desired future conditions identified in resource management plans.
- Goal 3: Develop and implement mechanisms that enable effective and efficient collaborative and science-based adaptive management among multiple entities working on the K2M and on the Colorado Plateau.
- Goal 4: Develop a suite of tools and data products that will contribute toward anticipating and managing the implications of rapid environmental change on federal lands on the Colorado Plateau and across the western United States.
- Goal 5: Facilitate the development of educational opportunities that will bring students at various educational levels onto the public and private lands of K2M for the purposes of study, outdoor education, and service learning activities, particularly as part of interdisciplinary, organized programs that address mutually agreed-upon objectives in land and resource stewardship.

II. STATEMENT OF MUTUAL BENEFIT AND INTERESTS:

The BLM and the U.S. Forest Service manage more than 23-million acres of National Forest system and public lands in Arizona. Management of these federal lands requires balancing protection of natural and cultural resources with management for multiple land uses. On the Colorado Plateau, additional research will be valuable in helping to guide land managers in decision making related to balancing resource protection and use, and such research in support of the region's natural resources is an integral part of the research mission of the participating universities, the Arizona Game and Fish Department, and the U.S. Geological Survey. The K2M provide a unique opportunity whereby NRR (owned by Grand Canyon Trust), as the holder of extensive grazing permits and leases for federal lands on the Colorado Plateau, is in a position to participate with the federal land management agencies and other partners to manage livestock for research purposes while it continues its role as commercial livestock manager and range steward. This coordination and cooperation of the Parties will generate knowledge, information, and tools that can inform sustainable resource management practices on the Colorado Plateau and elsewhere during a period of rapid environmental change. The public-private partnership resulting from this MOU will enhance federal lands stewardship capacity by creating mechanisms that support research, volunteer stewardship, interagency coordination, adaptive management, and technology transfer.

In consideration of the above premises, the Parties agree as follows:

III. USFS AND BLM AGREE TO:

- A. Provide a land base for studies on federal lands.
- B. Contribute towards coordination of research, partners, objectives, and priorities.
- C. Identify research needs.
- D. Contribute relevant past and future long-term monitoring data.
- E. Identify high-priority land management and conservation projects on an annual basis for which volunteers can assist.
- F. Cooperate with work related to the agreement as appropriate and available. Any funding provided will be outlined in separate agreements with specific deliverables, deadlines, and funding amounts.
- G. Provide logistical, GIS, and computer support as available.
- H. Issue research permits and other appropriate authorizations when compatible with legal mandates.
- I. Prepare NEPA review documents, as appropriate.
- J. Contribute toward dissemination of results and other outreach activities.
- K. Coordinate and communicate with the Parties on studies relevant to the overall research design that have occurred within agency boundaries.
- L. Manage the federal lands involved in research studies in a manner compatible with the research design, pursuant to existing laws, policies, and management plans.
- M. Provide flexibility to NRR in its livestock management program, pursuant to existing laws and regulations, such that NRR can scale and manage its

operation to meet the research design consistent with applicable allotment management plans (AMPs) and associated terms and conditions of the grazing permits (which may require revisions to existing AMPs).

- N. Assign at least one representative to participate in coordination meetings.

IV. GCT AGREES TO:

- A. Provide a land base for studies.
- B. Manage its livestock operation to meet the research design consistent with applicable allotment management plans (AMPs) and associated terms and conditions of the grazing permits (which may require revisions to existing AMPs), through its subsidiary NRR in an ecologically, economically, and operationally viable fashion.
- C. Contribute towards coordination of partners, objectives, and research.
- D. Process agreements to access private land.
- E. Provide accommodations for researchers, volunteers, and agency staff as appropriate and made available.
- F. Assist in identifying research needs.
- G. Prepare NEPA review documents, as appropriate.
- H. Contribute relevant datasets, as appropriate and made available.
- I. Manage and/or recruit volunteers to complete high-priority management projects, as appropriate and made available.
- J. Provide funds as appropriate and made available.
- K. Provide logistical, GIS, and computer support as available.
- L. Contribute toward dissemination of results and other outreach activities.
- M. Provide annual notification on studies that occurred on private property.
- N. Assign at least one representative to participate in coordination meetings.

V. THE COMMISSION AGREES TO:

- A. Provide scientific expertise in developing research, monitoring, inventory, and survey needs.
- B. Write proposals or plans for research, monitoring, inventory, and survey work as appropriate.
- C. Provide scientific expertise to assist with review and refinement of plans or proposals.
- D. Assist in identifying appropriate personnel to conduct studies.
- E. Cooperate with work related to the agreement as appropriate and available. Any funding provided will be outlined in separate agreements with specific deliverables, deadlines, and funding amounts.
- F. Provide field, GIS, and logistical support when possible.
- G. Communicate the results of any research, monitoring, inventory, or survey work undertaken as part of the MOU by the Department to the Parties of the MOU in a timely manner.
- H. Assign at least one Department representative to participate in coordination meetings.

VI. NAU AGREES TO:

- A. Assist in identifying research needs.
- B. Provide expertise in landscape, wildlife, fire, plant community, and conservation ecology and planning.
- C. Integrate research efforts at the landscape level and provide advanced analytical capacity, as desired and as funding levels permit.
- D. Provide access to relevant spatial datasets for collaborative work, as appropriate.
- E. Provide scientific support for collaborative proposals and research projects.
- F. Conduct and supervise management-relevant research efforts addressing identified research needs, as is appropriate and as funding and personnel are made available.
- G. Engage students in research and learning on the K2M, as appropriate.
- H. Process agreements for exchange of funds, as appropriate.
- I. Provide timely communication of study results.
- J. Contribute toward dissemination of results and other outreach activities.
- K. Provide logistical support (e.g., access to motor pool, equipment, etc.); IT support (e.g., data archival/dissemination, GIS, technology transfer); and serve as an institutional base for the partnership's research activities, as state regulations and funding levels permit.
- L. Assign at least one representative to participate in coordination meetings.

VII. U of A AGREES TO:

- A. Assist in identifying research needs.
- B. Provide expertise in rangeland assessment and monitoring, animal science, grazing management, and wildlife science and management.
- C. Contribute relevant datasets.
- D. Provide scientific expertise to assist with review and refinement of research proposals.
- E. Identify and facilitate opportunities to network research on K2M with complementary research efforts within the region.
- F. Focus research efforts toward conducting management-relevant research.
- G. Engage students in research and learning on the K2M, as appropriate.
- H. Process agreements for exchange of funds, as appropriate.
- I. Provide timely communication of study results.
- J. Contribute toward dissemination of results and other outreach activities.
- K. Provide logistical (e.g., vehicles, equipment, personnel, etc.), GIS, and computer support as available.
- L. Assign at least one representative to participate in coordination meetings.

VIII. USGS AGREES TO:

- A. Assist in identifying research needs.
- B. Provide expertise in landscape, wildlife, fire, plant community, and conservation ecology and planning.
- C. Contribute relevant datasets.

- D. Provide scientific support for collaborative proposals and research projects.
- E. Conduct and supervise management-relevant research efforts addressing identified research needs, as is appropriate and as funding and personnel are made available.
- F. Engage students in research and learning on the K2M, as appropriate.
- G. Process agreements for exchange of funds, as appropriate.
- H. Provide timely communication of study results.
- I. Contribute toward dissemination of results and other outreach activities.
- J. Assign at least one representative to participate in coordination meetings.

IX. IT IS MUTUALLY UNDERSTOOD AND AGREED BY AND BETWEEN THE PARTIES THAT:

The purpose of the Partnership is to establish a multi-entity cooperative research and stewardship program to address Colorado Plateau federal lands management challenges with an emphasis on research questions related to the nexus between conservation, commercial livestock grazing, and related land management practices. The parties shall work together to promote and establish mechanisms for implementing the goals described in the Purpose section of this MOU for the benefit of enhancing federal lands stewardship capacity on K2M and elsewhere.

X. AUTHORITIES

The BLM may enter into this MOU under the Federal Land Policy and Management Act of 1976, 43 U.S.C. 1737, Sec 307.

The Commission is authorized to enter into this MOU pursuant to A.R.S. § 17-231(B)(7). Whereas, the Commission has statewide responsibility for wildlife management and the Arizona Game and Fish Department (“Department”) acts under the authority of the Commission.

XI. ROLES & RESPONSIBILITIES

- A. Each party will manage its own activities and resources, including the expenditure of its own funds, in pursuing the above objectives; provided each party will carry out its separate activities in a coordinated and mutually beneficial manner, and will:
 - 1. Support the goals and objectives of the Partnership as set forth in this MOU.
 - 2. Contribute toward increasing awareness and support for the Partnership’s objectives with the public; management agencies, non-profit organizations, and academic institutions.
 - 3. Contribute toward funding as available.
 - 4. Contribute toward development of research questions.
 - 5. Contribute toward disseminating research findings to appropriate audiences.
 - 6. Coordinate with other research efforts to optimize collective efforts, as appropriate.
 - 7. Contribute towards development of opportunities and activities that enhance community-based conservation, particularly those that serve to engage youth, students, and local communities.

8. Participate in biannual coordination meetings, or on an as-needed basis.

PRINCIPAL CONTACTS. Individuals listed below are authorized to act in their respective areas for matters related to this instrument.

Principal Parties' Contacts:

Grand Canyon Trust Program Contact	
Name/Title: Ethan Aumack, Director of Restoration Programs	
Address: 2601 N Fort Valley Rd.	
Flagstaff, AZ 86001	
Phone: 928-774-7488	
FAX: 928-774-7570	
E-Mail: eaumack@grandcanyontrust.org	

Bureau of Land Management Program Contact	Bureau of Land Management Administrative Contact
Name/Title: Lorraine M. Christian, Arizona Strip Field Office Manager	Name/Title: Vermilion Cliffs N.M. Manager (Vacant)
Address: 345 East Riverside Dr.	Address: 345 East Riverside Dr.
St. George, UT 84790	St. George, UT 84790
Phone: 435-688-3323	Phone: 435-688-3241
FAX: 435-688-3258	FAX: 435-688-3258
E-Mail: lmchrist@blm.gov	E-Mail:

U.S. Geological Survey Program Contact	U.S. Geological Survey Administrative Contact
Name/Title: Dave Lytle/Center Director, Southwest Biological Science Center	Name/Title: Shelley Pistorius, Administrative Officer
Address: 2255 N. Gemini Drive	Address: 2255 N. Gemini Drive
Flagstaff, AZ 86001	Flagstaff, AZ 86001
Phone: 928-556-7194	Phone: 928-556-7093
FAX: 928-556-7092	FAX: 928-556-7092
E-Mail: dlytle@usgs.gov	E-Mail: spistorius@usgs.gov

U.S. Forest Service Program Contact	U.S. Forest Service Administrative Contact
Name/Title: Tim Short	Name/Title: Susan L. Brown
Address: North Kaibab Ranger District	Address: Kaibab National Forest Headquarters
430 S. Main St., / PO Box 248,	800 S 6 th St
Fredonia, AZ 86022	Williams, AZ

Phone: (928) 643- 8130	Phone: (928) 635 8302
FAX: 928 643 8105	FAX: 928 635 8208
E-Mail: tshort@fs.fed.us	E-Mail: susanlbrown@fs.fed.us

AGFD Program Contact	AGFD Administrative Contact
Name/Title: Ron Sieg, Region 2 Supervisor	Name/Title: Lou Ann DeHart
Address: Arizona Game and Fish Department Region 1	Address: Arizona Game and Fish Department
3500 S. Lake Mary Rd.	5000 West Carefree Highway
Flagstaff, AZ 86001	Phoenix, AZ 85086
Phone: 928-214-1240	Phone: 623-236-7521
FAX: 928-779-1825	FAX: 623-236-7358
E-Mail: rsieg@azgfd.gov	E-Mail: ldehart@azgfd.gov

Northern Arizona University Program Contact	Northern Arizona University Administrative Contact
Name/Title: Thomas D. Sisk, Olajos-Goslow Chair of Environmental Science and Policy	Name/Title: Laura Huenneke, Vice President for Research
Address: Lab of Landscape Ecology and Conservation Biology, School of Earth Sciences and Environmental Sustainability, Northern Arizona University	Address: Northern Arizona University
P.O. Box 5694; Northern Arizona University	PO Box 4087; Northern Arizona University
Flagstaff, AZ 86011-5694	Flagstaff, AZ 86011-4087
Phone: (928) -523-7183	Phone: 928-523-4340
FAX: (928) -523- 7423	FAX: 928-523-1075
E-Mail: Thomas.Sisk@nau.edu	E-Mail: Laura.Huenneke@nau.edu

University of Arizona Program Contact	University of Arizona Administrative Contact
Name/Title: Doug Tolleson, Asst Extension Specialist/Research Scientist	Name/Title: Jennifer Gardner Smith, Executive Assistant
Address: 2830 N. Commonwealth Drive Suite 103	Address: PO Box 210036
Camp Verde, AZ 86322	Forbes Building 314
	Tucson AZ 85722
Phone: 928-554-8999	Phone: 520-621-7201
FAX: 928-554-8996	FAX:
E-Mail: dougt@cals.arizona.edu	E-Mail: jsmith@ag.arizona.edu

NOTICES. Any communications affecting the operations covered by this agreement given by the Parties is sufficient only if in writing and delivered in person, mailed, or transmitted electronically by mail or fax to the legal representative of the Parties. Notices are effective when delivered in accordance with this provision, or on the effective date of the notice, whichever is later.

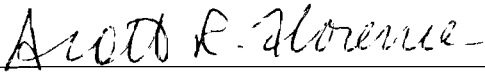
XII. LANGUAGE REQUIRED BY THE PARTIES:


1. **PUBLICATIONS.** The Parties recognize that the results of work performed under this Agreement must be publishable.
2. **NON-LIABILITY.** The Parties do not assume liability for any third party claims for damages arising out of this MOU.
3. **NON-AVAILABILITY OF FUNDS.** No funding is required for any obligation of the Parties under this MOU.
4. **NON-DISCRIMINATION.** In carrying out the terms of this Agreement, the Parties agree to comply with State Executive Order 2009-09 and all other applicable Federal and State laws, rules and regulations, including the Americans with Disabilities Act.
5. **RECORDS RETENTION AND AUDIT.** In accordance with A.R.S. § 35-214, all books, accounts, reports, files, electronic data, and other records relating to this Agreement shall be subject at all reasonable times to inspection and audit by the State of Arizona for five (5) years after completion of this Agreement. Upon request, Party shall produce original of any and all such records.
6. **ARBITRATION.** The Parties agree to engage in any alternative dispute resolution procedures authorized by their statutes, regulations and court rules, including, but not limited to, 5 U.S.C. § 575 and A.R.S. § 12-1518.
7. **PARTICIPATION IN SIMILAR ACTIVITIES.** This MOU in no way restricts the Parties from participating in similar activities with other public or private agencies, organizations, or individuals.
8. **ENDORSEMENT.** Any of the Parties' contributions made under this MOU do not by direct reference or implication convey any Parties' endorsement of any of the Parties' products or activities.
9. **NONBINDING AGREEMENT.** This MOU creates no right, benefit, or trust responsibility, substantive or procedural, enforceable at law or equity. The parties shall manage their respective resources and activities in a separate, coordinated and mutually beneficial manner to meet the purposes(s) of this MOU. Nothing in this MOU authorizes any of the parties to obligate or transfer funds. Specific projects or activities that involve the transfer of funds, services, or property among the parties require execution of separate agreements and are contingent upon the availability of appropriated funds. These activities must be independently authorized by statute. This


MOU does not provide that authority. Negotiation, execution, and administration of these agreements must comply with all applicable law. Each party operates under its own laws, regulations, and policies, subject to the availability of appropriated funds. Nothing in this MOU is intended to alter, limit, or expand the agencies' statutory and regulatory authority.

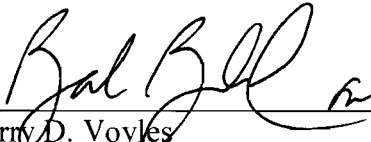
10. MEMBERS OF U.S. CONGRESS. Pursuant to 41 U.S.C. 22, no United States member of, or United States delegate to, Congress shall be admitted to any share or part of this MOU, or benefits that may arise therefrom, either directly or indirectly.
11. FREEDOM OF INFORMATION ACT (FOIA). Public access to MOU or agreement records must not be limited, except when such records must be kept confidential and would have been exempted from disclosure pursuant to Freedom of Information regulations (5 U.S.C. 552).
12. PARTIES ACKNOWLEDGED IN PUBLICATIONS, AUDIOVISUALS AND ELECTRONIC MEDIA. The Parties shall acknowledge other Parties' support in any publications, audiovisuals, and electronic media developed as a result of this MOU.
13. PROMOTIONS. The participants will not publicize or otherwise circulate promotional material which state or imply endorsement of a product, service, or position of this MOU by any participant.
14. TERMINATION GENERALLY. Any of the parties, in writing, may terminate this MOU in whole, or in part, at any time before the date of expiration.
15. TERMINATION FOR CONFLICT OF INTEREST. This Agreement is subject to termination pursuant to A.R.S. § 38-511.
16. DEBARMENT AND SUSPENSION. The Parties' shall immediately inform the U.S. Forest Service if they or any of their principals are presently excluded, debarred, or suspended from entering into covered transactions with the federal government according to the terms of CFR Part 180. Additionally, should the Parties' or any of their principals receive a transmittal letter or other official Federal notice of debarment or suspension, they shall notify the U.S. Forest Service without undue delay. This applies whether the exclusion, debarment, or suspension is voluntary or involuntary.
17. MODIFICATIONS. Modifications within the scope of this MOU must be made by mutual consent of the parties, by the issuance of a written modification signed and dated by all properly authorized, signatory officials, prior to any changes being performed. Requests for modification should be made, in writing, at least 30 days prior to implementation of the requested change.
18. SEVERABILITY. In the event that any provision of this MOU or portion thereof is held invalid, illegal, or unenforceable, such provision or portion thereof shall be severed from this MOU and shall have no effect on the remaining provisions of this MOU, which shall remain in full force and effect.

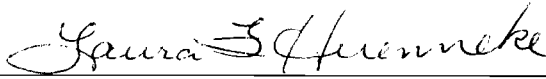
19. COMMENCEMENT/EXPIRATION DATE. This MOU is executed as of the date of the last signature and is effective through January 14, 2022 at which time it will expire, unless extended by an executed modification, signed and dated by all properly authorized, signatory officials.
20. AUTHORIZED REPRESENTATIVES. By signature below, each party certifies that the individuals listed in this document as representatives of the individual parties are authorized to act in their respective areas for matters related to this MOU. In witness whereof, the parties hereto have executed this MOU as of the last date written below.

BLM	Date
 Scott Florence Arizona Strip District Manager Bureau of Land Management	1/25/12

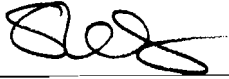
U.S. Forest Service	Date
 Michael R. Williams Forest Supervisor Kaibab National Forest	1/24/2012


GCT	Date
 Ethan Aumack Director of Restoration Programs Grand Canyon Trust	1/25/2012

Commission	Date
 Larry D. Voyles Secretary to the Commission Director, Arizona Game and Fish Department	1-19-12

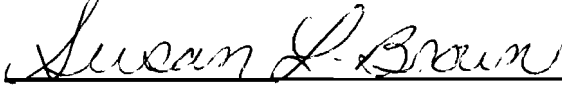
NAU	Date
 Laura Huenneke Vice President for Research	23 Jan 2012

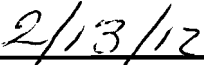
Arizona Board of Regents for and on behalf of Northern Arizona University	
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U of A  Shane Burgess Dean, College of Agriculture and Life Sciences The University of Arizona	Date 1/28/12
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USGS  David E. Lytle Director Southwest Biological Science Center U.S. Geological Survey	Date 1/24/12
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The authority and format of this instrument have been reviewed and approved for signature.


SUSAN L. BROWN
U.S. Forest Service Grants and Agreements Specialist


Date

Burden Statement

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0596-0082. The time required to complete this information collection is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call (800) 975-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.