

Research and Economic Development Committee Agenda

September 14, 2022

1:00 – 3:00 pm

Gateway Center, Salon C

- 1 PM 1. Joint Executive Session with the Academic and Student Affairs Committee
- 1:30 PM 2. Research and Economic Development Division report
- 2.1 People, Programs, Processes, and Priorities Chitnis
VP Chitnis will present his observations and will obtain feedback from the committee for increasing breadth and size of the UW research enterprise and its impact on enhancing the economic prosperity of Wyoming
- 2.2 Update: ROAM-Wyo UW's electronic Rapp
research administration system
- 2.3 Update: SI to SI2025 Chitnis
- 2.4 Discussion: High Plains American Indian Spoonhunter/Chitnis
Research Institute
- 2.5 Discussion: AMK ranch to Teton Research Chitnis
Institute
- 2:30 PM 3. Research Excellence Presentations
- 3.1 Introduction- Graduate education Chitnis and Ahern
- 3.2 'Geology of the rare earth elements' Ellen Grace Polites (Advisor:
Prof. John Kaszuba)
- 3.3 'Predicting oil recovery due to spontaneous Maryam Lakjaa (Advisor: Prof.
imbibition using artificial intelligence' Mohammad Piri)

AGENDA ITEM TITLE: RED Committee Meeting – Item 2.1, RED People, Programs, Processes, and Priorities- Chitnis

SESSION TYPE:

- Work Session
- Information Session
- Other
- [Committee of the Whole – Items for Approval]

APPLIES TO STRATEGIC GOALS:

- Yes (select below):
 - Institutional Excellence
 - Student Success
 - Service to the State
 - Financial Growth and Stability
- No [Regular Business]

- Attachments are provided with the narrative.

EXECUTIVE SUMMARY:

The mission of the Research and Economic Development Division (REDD) at UW is to increase the breadth and size of UW’s research enterprise and to foster economic development through building a vibrant innovation ecosystem across Wyoming. VP Chitnis will propose some strategies for a consistent increase in research enterprise at the University: (1) People: Hire sufficient staff with the right expertise and increase clarity and transparency in REDD organization (2) Programs: Enhance accountability from each unit and invest strategically in programs (3) Processes: Reduce administrative burdens by modernizing systems and simplifying processes (4) Priorities: Align REDD priorities with the state’s needs, Trustees’ guidance, President’s strategic directions, and UW’s strategic goals.

PRIOR RELATED BOARD DISCUSSIONS/ACTIONS:

None

WHY THIS ITEM IS BEFORE THE BOARD:

Information and feedback

ACTION REQUIRED AT THIS BOARD MEETING:

None

PROPOSED MOTION:

N/A

PRESIDENT’S RECOMMENDATION:

N/A

AGENDA ITEM TITLE: RED Committee Meeting – Item 2.2, Update: ROAM-Wyo UW’s electronic research administration system, Rapp

SESSION TYPE:

- Work Session
- Information Session
- Other
- [Committee of the Whole – Items for Approval]

APPLIES TO STRATEGIC GOALS:

- Yes (select below):
 - Institutional Excellence
 - Student Success
 - Service to the State
 - Financial Growth and Stability
- No [Regular Business]

- Attachments are provided with the narrative.

EXECUTIVE SUMMARY:

To reduce administrative burden on the grant applicants, REDD is committed to modernize systems that are used by the research community to submit applications to funding agencies. Progress in implementation of the new system will be provided with a timeline for full implementation.

PRIOR RELATED BOARD DISCUSSIONS/ACTIONS:

None

WHY THIS ITEM IS BEFORE THE BOARD:

Information and feedback

ACTION REQUIRED AT THIS BOARD MEETING:

None

PROPOSED MOTION:

N/A

PRESIDENT’S RECOMMENDATION:

N/A

AGENDA ITEM TITLE: RED Committee Meeting – Item 2.3, Update: SI to SI2025- Chitnis

SESSION TYPE:

- Work Session
- Information Session
- Other
- [Committee of the Whole – Items for Approval]

APPLIES TO STRATEGIC GOALS:

- Yes (select below):
 - Institutional Excellence
 - Student Success
 - Service to the State
 - Financial Growth and Stability
- No [Regular Business]

- Attachments are provided with the narrative.

EXECUTIVE SUMMARY:

The state of Wyoming has made substantial investments in Science Initiative through capital construction and some program support. Anticipating completion of Phase 1 soon, UW President Seidel has charged the SI2025 Executive Committee to develop a vision for the Science Initiative as it transitions into a sustainable science institute (see attached charge). The original science initiative was developed in 2014. Although much of what was in the original report is still valid, some strategic adjustments are needed as the science has become more interdisciplinary, more digital, more entrepreneurial, and more inclusive. For example, the report calls for establishing the Center for Integrative Biological Research. Today’s integrative biology requires close collaborations with chemists, physicists, engineers, and computer scientists. The original report envisions impacts of the Science Initiative on agriculture, environment, and energy sectors of Wyoming. This outcome requires avenues for innovation, industrial partnerships, and entrepreneurship. Update about the SI’s progress will be provided.

PRIOR RELATED BOARD DISCUSSIONS/ACTIONS:

None

WHY THIS ITEM IS BEFORE THE BOARD:

Information and feedback

ACTION REQUIRED AT THIS BOARD MEETING:

None

PROPOSED MOTION:

N/A


PRESIDENT’S RECOMMENDATION:

N/A



April 15, 2022

To: Diana Hulme, Interim Vice President, Office of Research and Economic Development,
Chair Greg Brown, Science Initiative Facilities Executive Operations Director (*ex officio*)
Mark Lyford, Science Initiative Programs Executive Director (*ex officio*)
Cameron Wright, Dean, College of Engineering and Applied Science
Barb Rasco, Dean, College of Agriculture and Natural Resources
David Jones, Dean, College of Health Sciences
Dr. Bryan Shader, Professor, Mathematics and Statistics, UW STEM representative
Adrienne Freng (or designee), Faculty Senate Representative

From: Ed Seidel, President 

Re: Science Initiative Executive Committee Charge

I am charging this seven-member committee with making all top-level decisions concerning UW Science Initiative facilities and programs. Decisions include faculty occupancy of the SI Building, space allocation to faculty in the SI Building, access to and use of research facilities by UW faculty not housed in the building (e.g., Greenhouses, walk-in growth chambers, Model Organism Research Facility), partnerships with outside business and industry partners and their use of SI facilities, and the SI programs.

In consultation with the Faculty Senate, the Committee will assemble a team of relevant UW faculty, staff, and administrators (a Faculty Leadership Committee) to develop a written plan to move the SI forward to Science Initiative 2025 (enclosed), given the backdrop of changes at UW and on the national landscape. *This plan can be comprehensive, but should specifically lay out a pathway to a new management structure of the new Science Building as a centerpiece which I refer to below as the "Institute", as well as related labs in other buildings that together form the broader science initiative.* In this new vision, faculty from different departments may move into the building, either part time to cultivate a new project with other faculty, or fully, for a period of some years, leaving behind their existing office and lab space. The plan developed should include not only the Science Building itself, but also such related science labs and offices, and their possible renovation, and policies for accommodating these more fluid arrangements.

The Faculty Leadership Committee shall provide preliminary recommendations, including any challenges and opportunities, to me, the Provost, and the SI Executive Committee by October 15, 2022, and a final report by December 15, 2022.

Enclosure: Top Tier Science Initiative 2025

AGENDA ITEM TITLE: RED Committee Meeting – Item 2.4, Discussion: High Plains American Indian Research Institute - Chitnis, Spoonhunter

SESSION TYPE:

- Work Session
- Information Session
- Other
- [Committee of the Whole – Items for Approval]

APPLIES TO STRATEGIC GOALS:

- Yes (select below):
 - Institutional Excellence
 - Student Success
 - Service to the State
 - Financial Growth and Stability
 - No [Regular Business]
- Attachments are provided with the narrative.

EXECUTIVE SUMMARY:

The Research and Economic Development Division plans to invest strategically in UW’s assets with high potential for making local impacts while getting national recognition and for enhancing UW’s research enterprise. High Plains American Indian Research Institute is one of such assets that is ready for expanded research and development activities. Ideas will be sought from the Trustees for realizing HPAIRI’s potential.

PRIOR RELATED BOARD DISCUSSIONS/ACTIONS:

None

WHY THIS ITEM IS BEFORE THE BOARD:

Information and feedback

ACTION REQUIRED AT THIS BOARD MEETING:

None

PROPOSED MOTION:

N/A

PRESIDENT’S RECOMMENDATION:

N/A

High Plains American Indian Research Institute

The current mission of the High Plains American Indian Research Institute (HPAIRI) at the University of Wyoming is to “empower Tribal Nations by facilitating and providing access to cutting-edge research opportunities with the University of Wyoming (UW)”. Given this mandate, the work of the Institute is both interdisciplinary in nature and broad in scope. Far from focusing on one specific discipline or area, HPAIRI aims to facilitate partnerships between Tribal Nations in the High Plains region and the world-class researchers at UW across several disciplines, departments, and academic programs.

In accomplishing this mission, HPAIRI’s current work is generally divided into five core themes:

- Strengthen and Facilitate Relationships between UW and Wyoming-based Tribal Nations.
- Empower Tribal Citizens through Direct Participation in the Research Enterprise.
- Educate the UW Community, and the State of Wyoming in General, Regarding Opportunities to Develop Positive Relationships with Tribal Peoples.
- Develop a Repository for American Indian Research.
- Create a Clearinghouse for Research Partnerships.

HPAIRI’s realize the potential of HPAIRI in meeting the research and economic development needs of tribal communities and students and for generating extramural funding for supporting these needs, HPAIRI’s strategies will be developed for enhancing interdisciplinary and inclusive convergence to address tribal opportunities. Some examples of these strategies include:

- Small grants to catalyze new research projects in collaboration with tribal communities and organizations with clear expectation about follow-up extramural funding to continue the projects.
- Invited lecture series to highlight opportunities and connect similar efforts on other tribal lands
- Technical assistance to campus researchers who want to develop projects with tribes
- HPAIRI-initiated research and training projects in topics such as natural resource management, traditional ecological knowledge, and digital humanities for preserving cultural and linguistic records.

Progress of HPAIRI in generating extramural funding as well as in providing inclusive environment for student training will be assessed in five years.

The newly hired Director of HPAIRI will be introduced to the committee (see attached CV).

TARISSA SPOONHUNTER (NATO KSIKSTAKI AKI)

EDUCATION

University of Arizona, Tucson AZ **2014**
Ph.D American Indian Studies
Dissertation: *Blackfoot Confederacy: Keepers of Rock Mountains*

University of Arizona **2001**
M.A. American Indian Studies
Thesis: *Glacier National Park on Blackfoot Territory: the Assertion of Rights on Traditional Lands*

University of Montana **1997**
B.A. Anthropology
Social/Cultural
Minor: Native American Studies
Graduated with High Honors

AWARDS

WY-ACT: Anticipating the Climate-Water Transition and Cascading Challenges to Socio-Environmental Systems in America's Headwaters 2022-2027
Growing Season: Native Student Pathways to Food System and Sovereignty Studies 2020-2023
Cultivating Indigenous Research Communities for Leadership in Education and STEM National Science Foundation INCLUDES Alliance MT WY ID ND SD NM 2020-2022
Diverse Issues in Higher Education Emerging Scholar 2018
National Science Foundation EPSCoR Wind River Reservation Leadership in STEM-TEK Educ 2017-2022
Excellence(INBRE 3)Growing Resilience Phase II: Albany Design and Wind River Expansion 2015-2018
NSF Students to Academic Professoriate for AMERICAN INDIANS STEM Scholar 2013
University of Arizona Excellence Graduate Fellowship in the Social Sciences 2010 – 2011
Partnership in Native American Cancer Prevention Dissertation Planning 2010 – 2011
National Indian Education Association Graduate Award 2005

TEACHING EXPERIENCE

Central Wyoming College Riverton, WY
American Indian Studies Assistant Professor: US Indian History, NA Literature, NA Education, AI in Contemporary Issues, Tribal Governance, Federal Indian Law, Natural Resource Managment on Indian Reservations, Tribal Leadership Practicum, and Nation Building
2014 – present
Developed syllabus and overall course structure, and administered all grades. Program and curriculum development for the Tribal leadership Bachelor of Applied Science and Associate of Arts degree. 5 year program review and assessment.

Wind River Tribal College Ethete, WY
Adjunct Instructor: Treaties and Federal Indian Law, Contemporary Issues **2012, 2014-2017**

University of Arizona Tucson, AZ
Summer Instructor: American Indian Studies Many Nations Across America and Natives in Film

Developed syllabus and overall course structure, and administered all grades. **2006- 2008**

University of Arizona Tucson, AZ
Teaching Assistant in American Indian Studies **2005 - 2009**
Many Nations Across America, Natives in Film, Urban Indian Experience, Treaties: collaborated on curriculum and exam development, gave 2-3 lectures, 2 discussion sections, met with students in office hours, graded all written work including exams.

Blackfeet Community College Browning, MT
Adjunct Instructor: Blackfeet History, Blackfeet Geography, Land Issues, Advanced Research, Baker Massacre, Blackfeet Community Practicum **2002 - 2004**
Developed syllabus and overall course structure, and administered all grades.

RELATED EXPERIENCE

Blackfeet Hunting on Ceded Lands Browning, Mt
Task Force **2021**
Incorporating traditional ecological knowledge into hunting regulations on ceded lands with treaty rights.

AMK Ranch Research Station University of Wyoming Grand Teton National Park
Task Force **2019-present**
Interdisciplinary programming and planning for the AMK Ranch.

University of Wyoming Laramie, WY
Senior Mentor **2017**
Native American Summer Institute: recruiting students, mentoring, presenting on higher education issues and curriculum.

Central WY College/Wind River Tribal College Wind River Indian Reservation
Principal Investigator **2015-2018**
Four Hills of Life Health Pathways: Recruiting mentor and mentees on the Wind River Indian Reservation for hands-on experience in health fields and tracks in higher education at Central Wyoming College, University Wyoming, and partnership with the Wind River Tribal College.

Tohono O'odham Community College Sells, AZ
Research Associate **2012 - 2014**
Institutional Research and Development: data collection, Institutional effectiveness, Higher Learning Commission data management, HLC Reporting, IPED reporting.

Sunnyside Unified School District Tucson, AZ
Native American Education Program Director **2011 - 2012**
Administrator and oversee the NAEP Title VII and JOM grants. Supervise 8 NAEP advisors in 17 Schools.

Native Nations Institute Tucson, AZ
Research Consultant **2010 - 2012**
Tribal Governance Analysis: working with the Oneida Nation of Wisconsin and the Lower Brule Sioux of South Dakota on effective tribal governance, analysis of programs, and strategic planning.

Native Nations Institute Tucson, AZ
Researcher **2008 - 2010**
Develop readings and assessment for the Rebuilding Native Nations Distance Learning Courses RNN-DLC.

Pilot study with Tigua Nation of Texas and Bush Foundation Fellows and Rebuilders Program. Promoting the distance learning course to Tribal Colleges and American Indian tribes in the US and Canada..

Northern Arapaho Preservation Office Researcher Keystone XL Pipeline Project Data collection for cultural resources and traditional territory.	Ethete, WY	2009
Blackfeet Community College Policy Researcher for Allotments Research and analyze all homestead and allotment policy related to Blackfeet Helena Land Series Allotments off the Blackfeet Reservation under the Indian Land Tenure Foundation.	Browning, MT	2007 – 2008
Blackfeet Tribe Policy Analyst Badger Two Medicine Travel Plan	Browning, MT	2003 – 2004
Blackfeet Community College Principal Investigator Bureau of Land Management Grant: Bear River Massacre and Sweet Grass Hills Cultural Study.	Browning, MT	2001-2003

PRESENTATIONS/PAPERS

<i>Broadening participation of women and underrepresented minorities in STEM panelist</i> National Science Foundation EPSCoR National Conference Colombia, SC		2019
<i>Ending American Indian Health Disparities</i> NIH IDEa Western Regional Conference		2019
<i>Native American Professionals Cultural Relevance in Education</i> St. Stephens Indian Schools Education Association, Inc.		2017
<i>Wind River Reservation Higher Education Summit</i> Wyoming Indian High School		2016
<i>WY Growing Resilience Phase II: WRIR Expand the NA young adult internship/mentorship program</i> University of Wyoming		2016
<i>Blackfoot Confederacy Keepers of the Rocky Mountains</i> University of Arizona		2014
<i>Northern Arapaho Assessment of Cultural Resources and Traditional Landscape Final Report</i> Keystone XL Pipeline Project Ethete, WY		2010
Blackfeet Reserved Rights in Glacier National Park Blackfoot Confederacy Conference Edmonton, AB		2008
<i>Preservation Laws Limit Indigenous Blackfeet Knowledge and Protection of Intellectual Property</i> Western Social Science Association Annual Conference Calgary, AB		2008
<i>Blackfeet Traditional Relationship with Bears</i>		

Blackfeet Community College	2003
<i>Blackfeet Education for all</i> Keynote Blackfeet Education for All Browning, MT	2002
<i>Glacier National Park on Blackfoot Territory: the Assertion of Rights on Traditional Lands</i> University of Arizona	2001

MEMBERSHIPS

Reservation Based Bachelor's Committee: University of WY, Central WY College, Wind River Tribal College
 Wind River Indian Reservation STEM-TEK
 St. Stephens High School Professional Leadership Team
 Fremont County #25 Title VI Vice President
 Wind River Native Advocacy Board
 Badger Two Medicine Committee
 Western Social Science
 American Indian Higher Education Consortium
 National Museum of the American Indian
 National Indian Education Association

REFERENCES

Christine M. Porter, Wyoming Excellence Chair in Community & Public Health	(307) 766-2143
Ian Record, Native Nations Institute Manager of Education Resources	(202) 466-7767
Brent Ewers, University of Wyoming Biodiversity Director	(307) 766-2625
Lea Whitford, Blackfeet History Instructor	(406) 338-2745

AGENDA ITEM TITLE: RED Committee Meeting – Item 2.5, Discussion: AMK ranch to Teton Research Institute - Chitnis

SESSION TYPE:

- Work Session
- Information Session
- Other
- [Committee of the Whole – Items for Approval]

APPLIES TO STRATEGIC GOALS:

- Yes (select below):
 - Institutional Excellence
 - Student Success
 - Service to the State
 - Financial Growth and Stability
 - No [Regular Business]
- Attachments are provided with the narrative.

EXECUTIVE SUMMARY:

The AMK ranch, University of Wyoming-National Park Service (UW-NPS) Research Station, is a cooperative effort between the University of Wyoming and the National Park Service. It is one of only 9 field stations in US National Parks. UW has made sizeable investments in updating and maintaining the historical buildings and facilities at the AMK ranch. It has also supported many research projects and conducted public engagement activities. To fully realize the potential of this unique asset of UW, a sufficiently funded research program with affiliated faculty group conducting team science and year-long access to the facility are needed. Plans for establishing an institute centered around the AMK ranch will be presented to get feedback from the BoT RED committee.

PRIOR RELATED BOARD DISCUSSIONS/ACTIONS:

None

WHY THIS ITEM IS BEFORE THE BOARD:

Information and feedback

ACTION REQUIRED AT THIS BOARD MEETING:

None

PROPOSED MOTION:

N/A

PRESIDENT’S RECOMMENDATION:

N/A



AMK ranch for launching UW Teton Research Institute¹

The University of Wyoming's unique asset in its UW-NPS Research Center at the AMK Ranch can develop into a world-class premier Institute for Research, Education, and Engagement. Biodiversity, ecology, and geology of the Yellowstone-Teton area impact Wyoming climate, water availability, culture, and economy; these impacts extend far beyond Wyoming. Since 2020, UW has embarked on the Crossing Divides Initiative to renew its vision for the AMK ranch. AMK ranch and the associated UW Teton Research Institute will report to the Research and Economic Development Division (REDD). This document summarizes progress and outlines next steps.

Talking Points

- After a long shutdown, UW has started the AMK ranch activities partially in summer 22 and is committed to start them fully from summer 2023. In August 2022, the first Harlow lecture was presented for an audience of about 50 persons.
- UW has renewed our interactions with the National Park leadership. A recent meeting with the Park Ranger was successful in charting some of the common priorities and goals in expanding research capability of the ranch and in involving UW in Park's engagement efforts.
- UW will work with the Trustees and the Foundation to raise state and private funding for residential and research facilities at the UW-NPS Research Station (AMK ranch) which will allow year-long use and research activities.
- UW will establish the best in class, globally known research institute that is built on the unique advantages offered by the AMK ranch.
- UW research enterprise has already been successful in obtaining a highly competitive \$20 million grant for research, education and engagement centered around Wyoming's water and climate transitions using research and related activities at the AMK ranch.

The Vision

Over the next 5 years, make the UW Teton Research Institute into a world-class home for world-class scholarship and experiences in Wyoming's world-class setting.

The UW Teton Research Institute will promote understanding of Wyoming's unique landscapes and their connections to the world by

- **Inspiring discoveries:** Advance the frontiers of knowledge by creating unique opportunities for scholars in Wyoming's iconic landscapes
- **Elevating experiences:** Enhance and expand opportunities for place-based learning for UW students, community scholars and experts, and the public
- **Connecting communities:** Share research and learning opportunities that cross boundaries and foster cooperation, understanding, and discourse of how Teton range impacts the state of Wyoming and beyond.

¹ tentative name. other potential names- UW Grand Teton Institute, UW Teton Research, Education and Engagement Institute (UW TREE Institute), UW Teton-Yellowstone Institute

The Mission:

To achieve our vision, UW students and faculty partner with the National Park Service and others in Wyoming and across the world to increase opportunities for research, scholarship, creative and cultural activities, and courses connected to Wyoming's iconic landscapes and ecosystems, its Native American culture and heritage, and its traditions from ranching to recreation.

Organizational Structure

Leadership

Director of the Institute

- Associated staff- administrative assistant, business manager

Actions: (1) Director hired in FY24: Interim Director hired in FY23. Associated staff can be hired in FY24 using REDD and EPSCoR funds. (2) Immediately appoint an interim director for implementing FY23 activities

Membership

- Faculty Members: UW faculty who use or plan to use AMK ranch for their work
- Associate Members: from other institutions, including from NPS, that will collaborate with the UW faculty and participate in activities

Actions: (1) Initiate core faculty assignments in the institute in **FY23**. Priority for access to UW's Teton Institute programs will be the incentive for the faculty. Based on the ideas submitted for use of the AMK ranch, over 100 university faculty and staff are keen on using the facility. (2) Align the Forest Ecology faculty hire in **FY23** with AMK ranch use. (3) ensure that the EPSCoR project hires are aligned with the Institute vision.

UW-NPS Research Station (AMK Ranch <https://uwnps.org/about-us/>)

- On site Manager for the residential facilities- to be hired by the UW Facilities
- On site Manager for the research instrumentation- to be hired by REDD, reporting to the Institute Director
- Improved residential facilities- state and private funds
- Research instrumentation (sensors, cameras, and data transfer)- state and private funds

Action: (1) Propose an initiative to the Trustees for residential and research facilities at the AMK ranch for inclusion in the next state budget request. (2) Until the modernization, use the current facilities for summer research. The managers could relocate to Laramie for other related responsibilities during winter until winter facilities are available.

Programs

Science Clusters

- Forest, Freshwater, and Microbial Ecology of Teton range and beyond
 - Geological and atmospheric sciences of Yellowstone-Teton area
 - Biodiversity research of Yellowstone-Teton area
 - Data repositories, analytics, and HPC-based modeling of atmospheric, hydrologic, geologic, ecological, and environmental systems
 - Socio-Environmental Systems
 - Place-Based Humanities
- Place-Based Learning and Outreach will be part of all research clusters

Institute Programs

The Institute will implement the following programs through UW and external support

- UW Programs
 - Teton Scholars (*to be reinitiated from **summer 2023***)
 - Harlow Summer Seminar Series (restarted in August 2022)
 - Workshops and Events (using REDD and EPSCoR funds – *first two EPSCoR events in **September 22***)
 - Seed Grants for AMK-based projects (*using NPS, REDD and EPSCoR funds for Summer 23- Announcement in fall 2022. Primarily supporting faculty summer salary and graduate research assistantship*)

Actions: (1) *At least two Harlow Summer Seminars and one EPSCoR project event in summer 2022. (2) Initiate programs fully from summer 2023 (3) Living-learning WY-ACT community that uses AMK ranch for learning and research (3) Raise Trustee and private funds for faculty excellence and student success for long term support*

- Extramural Programs
 - Integrated Research, Education, and Outreach major grants:
Accomplished: EPSCoR track 1 grant is a major investment in AMK Ranch based investments in research, education, and outreach
 - Individual Faculty grants
Goal: At least five federal research grants in the first five years
 - Conference grants for Workshops and private support for events
Goal: At least five conference grants in the first five years
 - Long Term Ecological Research Station
Aspirational Goal: Establish, through NSF funding, an LTER site in the first five years

- International Partnerships
 - MOUs with similar place-based research stations and institutes

Actions: (1) *Danau Girang Field Centre of Cardiff University to be completed in FY23 (<https://www.cardiff.ac.uk/danau-girang-field-centre>) (2) Additional MOUs in the future years (Workshops at the AMK ranch are used to initiate these interactions). Initiate discussions with the Helmholtz Association's Karlsruhe Institute of Technology about partnership with IMK-IFU (Institute of Meteorology and Climate Research Atmospheric Environmental Research, Campus Alpin, Garmische-Partenkirchen (<https://www.imk-ifu.kit.edu/english/index.php>)*

- Join ForestGEO network led by Smithsonian

Actions: (1) *Work with Smithsonian to obtain criteria and preparation for meeting them in FY23 (2) Join the network in FY24 (3) Consider coordinating with MRI, GNOMO, and related mountain science organizations*