PERSON_FULL_NM	LEAD_UNIT_NM	PROJECT_DESC	SUSTAINABILITY_DESC
Bayham,Jude	Agricultural + Resource Economics	Cost Drivers, Effectiveness of Wildfire Suppression Operations, and Investments in Preparedness	Wildfire Risk Management Science (WRMS) Team applies risk analysis, economics, and decision science research to improve the scientific basis for wildfire management
Bonanno,Alessandro	Agricultural + Resource Economics	Causes and Consequences of adult Food Insecurity in at Risk Populations: Persistency, Mortality, and Sampling	Analysis of persistency of food insecurity among minorities and underserved populations, the bias in the measure of elderly FI due to sampling issues, and metrics to account for higher mortality rates and lower life expectancies in individuals experiencing food insecurity
Burkhardt,Jesse Brodie	Agricultural + Resource Economics	CESU-RM: Non-Market Valuation of National Parks Cooperative Agreement	CSU's Department of Agricultural and Resource Economics (DARE) program bring expertise in economic data management for National Park Service study.
DeLay,Nathan D	Agricultural + Resource Economics	Innovative Technologies to Reduce Beef Industry GHG Emissions	Reduce GHG emissions through climate-smart and regenerative practices, demonstrate the use of innovative and existing technologies for GHG reductions, and develop and test a pilot market-based program that benefits underserved producers
Jablonski,Rebecca BR	Agricultural + Resource Economics	CSA: Capturing Tradeoffs in NYC's Procurement Decisions	New York City spends >$500M annually on food, and the New York City Public School system is the 2nd largest purchaser of food in the U.S. Decisions that New York City makes in terms of procurement have the potential to significantly impact environments, economies, and the viability of regional agricultural stakeholders
Koontz,Stephen R	Agricultural + Resource Economics	Smart Foodscapes to Enhance the Sustainability of Western Beef Production	Smart Foodscapes to enhance the sustainability of Western Beef Production.
Magnan,Nicholas P	Agricultural + Resource Economics	Packaging and Processing of Food for Safety, Cost-Effectiveness and Reduced Environmental Impact in Malawi	Modify the power supply from standard electric grid to solar photovoltaic for 5 different types of driers, a slicer, a pulverizer, and a sheller. Targets for modification will be refined in consultation with local farmers and in consideration of potential markets for sale
Mooney,Daniel F	Agricultural + Resource Economics	Assessing the Technical and Economic Potential of Irrigation Curtailment Practices to Jointly-Sustain Livestock Production and Water Conservation in the Upper Colorado River Basin	The Colorado River Basin currently stands amidst unprecedented challenges. Declining water supplies due to ongoing drought carry significant implications for the river's water users, especially within the agricultural sector of Upper Basin states
Ritten,John Patrick	Agricultural + Resource Economics	Ecosystem Services from Semiarid Rangelands: Quantifying Sustainability Synergies and Tradeoffs across a Decade of Contrasting Grazing Management	Analysis of trade-offs of Ecosystem Services.
Suter,Jordan	Agricultural + Resource Economics	Inland Flooding and Evacuation: Individual Decisions and Economic Impacts	Understanding behavioral responses to flooding and evacuation orders is critical as more people move to inland areas at risk for flooding and climate change increases flood frequency and intensity. Public institutions such as the National Oceanic and Atmospheric Administration (NOAA) provide information to the public related to flood risks and evacuation.
Borowiec,Marek L	Agricultural Biology	FACT-AI: Harnessing Artificial Intelligence for Implementing Integrated Pest Management in Small-Grain Production Systems	Develop AI-based Decision Support System (DSS) for pests of the Inland Pacific Northwest small grain system to enhance food security.
Brown,Cynthia S	Agricultural Biology	Impacts of Residual Indaziflam on Establishment of Native Species from Seed	Invasive annual grasses (IAG) pose an ecological threat. Indaziflam is an herbicide used for pre-emergent control of IAG. Targeted agencies use indaziflam for weed management, habitat restoration, and/or research. Impacts of residual indaziflam on native seed banks are little known and of concern. IAG serve as fine fuels for wildfire; indaziflam applications and corresponding reductions of IAG reduce fuels. We need to improve understanding of indaziflam effects on plant community development
Hufbauer,Ruth A	Agricultural Biology	CESU-RM Understanding Food-Web Connections to Support Ecosystem Resilience and Recovery from Brown Tree Snakes Invasion	To start to disentangle the food-web connections and understand the relative strength of different processes.
Roberts,Robyn	Agricultural Biology	Plant Pathology	To support the wheat plant pathology research and extension program. The funds will support the initiation of research and extension programming on critical wheat diseases including stripe rust and viruses vectored by the wheat curl mite, including Wheat Streak Mosaic Virus, Wheat Mosaic Virus and Triticum Mosaic Virus. These funds will enhance research on the ecology and epidemiology of these important pathogen groups.
Roman-Muniz,Ivette Noami	Agricultural Biology	Detecting and Tracking Infection by the Biocontrol Pathogen, Ovavesicula popilliae	Conduct surveillance and characterize Japanese beetle infection prevalence and intensity to improve plant and crop health
Stewart,Jane E	Agricultural Biology	Developing Tools for Early Detection and Monitoring of High Elevation Pine Rusts	Develop tools to detect rust pathogens that cause significant impacts in high elevation, western forests
Trivedi,Pankaj	Agricultural Biology	Providing Practical Solutions for Huanglongbing (HLB) Treatment and Prevention	1. Perform multi-omics analyses of soil, rhizosphere, and plant samples collected from transgenic and control citrus growing in greenhouse and field trials in several states to understand the plant-microbe interaction dynamics associated with transgenic citrus. 2. Perform soil and plant analysis to evaluate the effect of transgenic citrus on soil health and microbial mediated ecosystem processes. 3. Analyze microbiome dataset to evaluate the effect the shifts in the microbial community structure.
Davis,Jessica G	Agricultural Experiment Station	Improving Environmental and Economic Sustainability Outcomes through Incorporation of Pulses into Irrigated and Dryland Crop Rotations in Semi-Arid and Arid Climates	1) Measure water use by peas, lentils, cowpeas, wheat, millet, and corn and determine how the addition of pulse crops into the rotations could affect the water footprint and water use efficiency of the cropping system in both dryland and irrigated systems. 2) Monitor the impact of pulses on soil carbon sequestration and soil health. 3) Evaluate the impact of the three pulse crops on nodule and rhizosphere community composition, plant-rhizobia interactions, plant nitrogen concentrations.
Goldhamer,Daniel Arthur	Agricultural Experiment Station	Colorado STAR Program: Statewide Expansion and Regional Program Development	The STAR Program is a free and voluntary tool to inspire producers, give bragging rights, and structure conversations around soil health. STAR is a practice-based rating system that assigns points for the following soil health practices: cropping, tillage, nutrient application, and other best management practices based upon a 10-minute form that producers fill out about each field.
Thoma,Gregory	Agricultural Experiment Station	Climate Smart Grasslands-the Root of Agricultural Carbon Markets	Research Climate Smart Grasslands as the Root of Agricultural Carbon Markets.
Carvalho,Pedro Henrique	Animal Sciences	Assessing the Impact of Health Management and Production Technologies on Sustainability of Beef and Dairy Industry	Assessing the impact of production technologies on sustainability of beef and dairy industries
Dillon,Jasmine Ashley	Animal Sciences	Environmental and Economic Assessment of Beef Produced at the Buck Island Ranch: Phase 2	Compare the cradle-to-processing gate environmental footprints of an in-state to an out-of-state Buck Island Ranch beef finishing system in Florida. Evaluate economic implications of the shift from an in-state to out-of-state Buck Island Ranch beef finishing system in Florida.
Engle,Terry E	Animal Sciences	A Bromoform Safety Study for California Dairy and Beef Cattle	Generate public knowledge about the safety of a bromoform-containing product (BCP) for California beef and dairy cattle that has scientifically demonstrated efficacy in reducing methane emissions from ruminant animals.
Manriquez Alvarez,Diego Ignac	Animal Sciences	Afrin Jannat: Enhancing Indoor Air Quality in Dairy Farms via Automatic Air Monitoring and Mitigation Strategies	Enhance indoor air quality of dairy operations by determining the most efficient ways to allocate air quality monitoring sensors in terms of measurement accuracy and precision
Stackhouse-Lawson,Kimberly	Animal Sciences	Coupling Tech Herding and Emissions Measurement Technologies to Develop Sustainable Grazing Strategies on the Shortgrass Steppe	Rangeland research and educational outreach objectives to inform producers on the applicability of tech herding for estimating and reducing enteric methane emissions from grazing animals
Hausermann,Heidi	Anthropology and Geography	DISES: Investigating Mercury Biogeochemical Cycling via Mixed-Methods in Complex Artisanal Gold Mining Landscapes and Implications for Community Health	Investigate environmental risk posed by one contaminant – mercury (Hg) – in artisanal and small-scale gold mining (ASGM) systems in Ghana, a country with extensive ASGM activity, and focuses on two ASGM communities with contrasting geology, mining type, climate, and ecosystem
Henry,Edward	Anthropology and Geography	CESU-RM: Using Geoarchaeology to Create Contemporary Narratives about Pinson Mounds	Work with contemporary Indigenous nations to refocus the public narrative about the past at Pinson Mounds State Park in West Tennessee
Sibold,Jason Scott	Anthropology and Geography	Spruce Beetle Epidemic and Aspen Decline Management Response (SBEADMR)	Perform monitoring, analysis, and interpretation of results addressing impacts and management responses of the large scale spruce beetle epidemic and Sudden Aspen Decline on the GMUG NF, and monitoring in support of the Revised Forest Plan
Davidson,Jeffery William	Arkansas Valley Research Center	Using Cowpea as an Alternative Cover Crop in the Water Challenged Regions of the Southeastern Colorado	Planting cover crops is a common agricultural practice in the Southeast of Colorado to increase producers' profitability and improve the environmental sustainability including prevent soil erosion, reduce soil compaction and nutrient leaching, improve soil biodiversity, enhance water infiltration and quality, suppress weeds and diseases, increase carbon sequestration and maximum nutrient recycling
Anderson,Charles W	Atmospheric Science	AI Institute: Artificial Intelligence for Environmental Sciences (AI2ES)	AI Institute: Artificial Intelligence for Environmental Sciences.
Barnes,Elizabeth Adrianne	Atmospheric Science	Explainable AI for Climate Science and Climate Modeling	Explore the use of XAI for utilizing climate model output for accurate predictions on subseasonal-to-decadal (S2D) timescales for predicting both the internal variability of the climate system as well as the longer-timescale forced response
Chiu,Jui-Yuan	Atmospheric Science	Assessing the Dependence of Aerosol-Cloud Interactions on Low-Cloud Mesoscale Morphology with ARM Observations	Marine boundary layer (MBL) clouds are at the heart of the climate feedback uncertainty. The dependence of aerosol-cloud interactions on MBL cloud morphology has been based on satellite data. However, satellite data cannot provide details of dynamics, thermodynamic, cloud, and precipitation in the boundary layer. The ARM observations provide a great opportunity.
Collett Jr,Jeffrey L	Atmospheric Science	Effects of Excess Levels of Particulate Matter Haze Ozone and Nitrogen Deposition on Resources of Six NPS Units Part I Ozone and Particulate Matter in Carlsbad Caverns National Park	Routine monitoring efforts and focused air quality studies provide useful information concerning the concentrations, and long-term trends in concentrations, of a range of fine particles and trace gases in U.S. National Parks
Creamean,Jessie	Atmospheric Science	Collaborative Research: Antarctic Low Cloud Interaction with Natural Aerosol (ALCINA)	Deploy a suite of instruments at Palmer Station, Antarctica to measure aerosol size distributions, aerosol organic and inorganic chemistry, aerosol-cloud properties, downwelling spectral shortwave irradiance at both visible and near-infrared wavelengths, the surface energy budget comprising downwelling and upwelling shortwave and longwave radiation and turbulent fluxes.
Dolan Cabell,Brenda	Atmospheric Science	Collaborative Research: Snow Sensitivity to Clouds in a Mountain Environment (S2noCLIME)	Measure snow sensitivity to clouds in a mountain environment to measure impact to climate
Ebert-Uphoff,Imme Ruth	Atmospheric Science	AI Institute: Artificial Intelligence for Environmental Sciences (AI2ES)	AI Institute: Artificial Intelligence for Environmental Sciences.
Fischer,Emily V	Atmospheric Science	Enhancing Monitoring of Air Toxics and Air Quality Education in Underserved Communities in Northern Colorado	Monitoring of air toxins and air quality education in underserved communities in Northern Colorado
Maloney,Eric D	Atmospheric Science	Latent Heat Flux-Convection Coupling on Mesoscale through Intraseasonal Scales using CYGNSS Retrievals	Latent heat flux (LHF): LHF is the transfer of energy from the ocean to the atmosphere as water evaporates. It represents a large supply of energy that can fuel atmospheric convection and weather systems.The Cyclone Global Navigation Satellite System (CYGNSS) is a constellation of eight microsatellites that measure ocean surface wind speeds using signals reflected from GPS satellites. CYGNSS data is unique because it is less attenuated by heavy rain than traditional satellite data, making it especially useful for studying weather events, such as tropical cyclones and organized convection.The proposed work will continue our investigations using CYGNSS data into the coupling between wind-driven surface fluxes and tropical convection. By providing high-quality, high-revisit-time wind speed data in and around convective regions, CYGNSS allows researchers to observe the LHF that fuels weather systems more accurately than before.
Perkins,Russell James	Atmospheric Science	Comprehensive Characterization of the Seasonal Cycles of Ice Nucleating Particles for Studies of Precipitation Drivers in SAIL	Improve the representation of aerosol-cloud interactions in Earth System Models, including relations to natural, wildfire, and cloud seeding aerosols synthesized into comprehensive parameterizations to use in collaborative modeling investigations of aerosol-precipitation interactions
Rasmussen,Kristen Lani	Atmospheric Science	Investigation of Clouds, Aerosols, Vertical Motion, and Cold Pools during the Full Convective Lifecycle using Observations and Model Simulations from the CACTI Field Campaign	Research focused on how environmental factors and aerosol particles affect convective initiation, development, and the transition from shallow to deep clouds, including the role of cold pool dynamics and their relationship to aerosol concentration. Key findings include the correlation between higher aerosol concentrations and warmer cloud-top temperatures, indicating shallower deep convective cores, and the significant impact of terrain on storm behavior. Complex terrain can influence upscale growth of storms, with rapid growth occurring when both local and large-scale conditions are favorable. This research project supports sustainability in that it improves regional climate predictions and preparedness, supports sustainable agriculture and food security, enhances sustainable energy systems, reduces damage and risk from severe weather, quantifies aerosol effects for climate and air quality.
Schumacher,Russ Stanley	Atmospheric Science	Collaborative Research: What Drives the Most Extreme Rainstorms in the Contiguous United States (US)?	Extreme precipitation, and the flash flooding it often causes, is responsible for numerous fatalities and significant damage every year. Accurate forecasts of extreme rainfall remain elusive and this project will address this gap in knowledge by using observations, machine learning, and numerical simulations to quantify the differences between the most extreme rainstorms and heavy but less extreme events.
Silvers,Levi Glenn	Atmospheric Science	Collaborative Research: Understanding the Links between Tropical Cyclones and Tropical Circulation under Climate Change through Idealized Coupled Climate Modeling	atmospheric modeling, climate.
Sun,Lantao	Atmospheric Science	Collaborative Research: Understanding the Impact of Arctic Sea Ice Loss on Summertime Climate Change	Understanding the links between Tropical Cyclones and Tropical Circulation under Climate Change through Idealized Coupled Climate Modeling
Thompson,David	Atmospheric Science	Using CloudSAT and CALIPSO Data Products to Understand the Role of Clouds in Extratropical Climate Variability	Two-day workshop to understand the role of clouds in Extratropical Climate Variability
Van Den Heever,Susan	Atmospheric Science	Process-Level Advancements of Climate through Cloud and Aerosol Lifecycle Studies (PASCCAL-S)	Understanding process-level advancements of climate through cloud and aerosol lifecycle studies
Venkatachalam,Chandrasekar	Atmospheric Science	CIF: A Sea-Going and Land Deployable Polarimetric (SEA-POL) Radar for the Science Community	The intent of the Community Instruments and Facilities (CIF) solicitation is to provide the NSF-sponsored atmospheric sciences research community with access to specialized instrumentation for field and laboratory-based studies. The CIF solicitation requests proposals from instrument and facility providers who will make their equipment available for community use through an NSF-defined request process.
Vonderhaar,Thomas H	Atmospheric Science	Libera Science Team	Libera is planned to fly on-board the NASA/National Oceanographic and Atmospheric Administration (NOAA) Joint Polar Satellite System in 2027. The primary goal is to demonstrate a method for the seamless extension of the Earth Radiation Budget (ERB) record, essential for recognizing changes to Earth's climate system and for constraining future predictions
Santangelo,Thomas James	Biochemistry + Molecular Biology	22-EXO22-0052, DNA Replication in Environmental Extremes	By detailing the evolution & activity of information processing systems we'll address the early evolution of life and test hypotheses regarding the original nature of key biological processes (e.g. genome replication)
Chen,Anping	Biology	Enhancing Drought Monitoring, Prediction, and Impact Assessment to Inform Rangeland Management in the Western Great Plains	Using soil moisture as a measure of agroecosystem drought and aboveground net primary productivity (ANPP) as the indicator of forage production.
Funk,William Christopher	Biology	Evaluating the Potential for Genetic Rescue in Colorado's State Fish, the Greenback Cutthroat Trout	To assess the response of newly introduced populations of cutthroat (GBCT and CRCT) to new environments, we plan to use a both genomic and morphometric methods
Gantly,Deborah Marie	Biology	Functional Engineering of a Photosynthetic Desalination Flow Circuit	We will enhance the production of purified water derived from our Photosynthetic Desalination system 100-1000 fold by converting the water transport system in plants from a passive system to an active system
Gonzalez Sargas,Eduardo	Biology	Assessment of Avian Community Responses to Riparian Restoration in Western North America	Assess the efficacy of restoration projects conducted in western North American riparian ecosystems in the context of avian community responses by conducting syntheses and analyses of existing datasets of bird, vegetation, environmental, and management data collected in restored and unrestored sites in Colorado River Delta
Hoke,Kim	Biology	Participant Support: Collaborative Research: NSF-BSF: Neural and Perceptual Mechanisms that Bias Mate Choice in Complex Signaling Environments	Examines the role of neural mechanisms in mate selection in Cope's gray treefrog, and how these mechanisms shape the evolution of signals and signaling behaviors.
Knapp,Alan Keith	Biology	LTER: Manipulating Drivers to Assess Grassland Resilience	We will study the long-term ecological dynamics of tallgrass prairie at the Konza Prairie Biological Station. Specific tasks will include long-term data syntheses, contributing to the primary production core area, manuscript preparation, design and implementation of experimental modifications to the Irrigation Transect study, overseeing new climate change research projects, and communication of results at national meetings.
Poff,Nathan LeRoy	Biology	CESU-RM: Restoration of Riparian Ecosystems in Western North America	Cooperate with the USGS to assess the efficacy of different restoration approaches conducted in western riparian ecosystems, to inform future restoration efforts
Ruegg,Kristen Camille	Biology	Quantifying the Strength of Migratory Connections to Address Bird Species of Conservation Concern in Alaska (5320163)	The BGP is partnering with the Alaska Department of Fish & Game (ADFG) to use whole genome resequencing to inform the ADFG of the genetic makeup of breeding populations of seven Species of Greatest Conservation Concern through the development of genoscapes, while also describing the regions where these species winter and the routes they travel in between. The sum of this work will help the ADFG implement valuable management decisions for populations of greatest conservation concern.
Smith,Melinda Dianne	Biology	LTER: Manipulating Drivers to Assess Grassland Resilience	Study the long-term dynamics of tallgrass prairie at the Konza Prairie Biological Station to preserve habitat
von Fischer,Joseph Charles	Biology	CSU Methane Mapping 2023	Colorado State University will support EDF's work in the technology & data analysis with advanced leak detection for natural gas leaks in distribution systems
Williams,Cory	Biology	Using Accelerometry and Stable Isotope Analyses to Assess Maternal Energy Transfer and Habitat Use in Northern Fur Seals	Study food limitation in proximity to major rookeries to understand the decline of the Eastern Pacific Stock of northern fur seals (Callorhinus ursinus) by more than two-thirds over the last half-century as well as declining pup production on St. Paul Island, the largest population.
Bosco-Lauth,Angela M	Biomedical Sciences	Discussion with Stakeholders of the APHIS National Feral Swine Damage Management Program's Disease Monitoring Component - Phase III Workshop	CSU will host a group of experts in feral swine disease and management from academia, government and industry for a two day workshop focused on prioritizing feral swine damage management efforts in the coming years
Carnevale,Elaine	Biomedical Sciences	Effects of Short-Term Nonstructural Carbohydrate Supplementation on Metabolic Function of the Oocyte and Follicular Cells of Old Mares	Provide novel insight into the extent that different dietary supplements can reach and alter the follicular environment and ultimately the oocyte. The research on NSC supplementation for old mares relates to sustainability in several ways, particularly concerning the economic, environmental, and social dimensions of the horse breeding industry. It contributes to creating more resilient and responsible breeding practices. Prolonging reproductive lifespan reduces the need to frequently replace mares. Improved oocyte quality and embryo development minimizes wasted time and resources on unsuccessful breeding attempts. More efficient breeding with fewer wasted pregnancies means a more productive use of feed and other resources, reducing the overall environmental impact. Better nutritional management can also potentially influence the nutrient content of manure, contributing to better waste management. Promoting the health and welfare of older mares through nutritional support is an ethical approach to animal management.
Herron,Christopher Michael	CEMML	Next Generation Biosecurity Monitoring of Invasive Alien Arthropod Species	Provide support and other services in Guam for establishing a baseline inventory of arthropods using metabarcoding and new sources of eDNA
Jones,David S	CEMML	Arthropod and Soil Biodiversity at Fort Hunter Liggett	Sample insect and soil biodiversity within the diverse ecosystems of Fort Hunter Liggett in California's Central Coast region. We aim to collect specimens across the region's terrestrial and aquatic environments that include a unique variety of soil types and plant communities.
Wallander,Amanda Zeman	CEMML	Sitka NHP Historic Resources Study	Produce a Historic Resource Study for Sitka, which will include primary source research to produce historic contexts and fieldwork to identify cultural resources associated with historic contexts. This study is deeply connected to sustainability through several key facets: cultural preservation, environmental protection, community resilience, and resource management. The study is not just about documenting the past, but about using that information to create a more resilient, equitable, and environmentally conscious future for the park and its surrounding communities.
Tegen,Suzanne Isabel	Center for the New Energy Economy	Advance Climate Solutions	TNC Advance Climate Solutions. CNEE will continue to update databases as well as CELA conference. Additionally, CNEE will provide multi-state stakeholder engagement and provide TNC with guidance on state-level energy transition as well as IIJA/IRA funding

Reardon,Kenneth F	Chemical + Biological Engineering	2654-1515: Algal Turf Scrubbers: Improving Carbon Utilization and Productivity (ATS: CUP)	This research project aims to enhance Algal Turf Scrubber (ATS) systems by improving how they use carbon dioxide (CO_2)and increasing their overall productivity. ATS systems use algae to remove pollutants like nitrogen, phosphorus, and carbon from water, and this project focuses on making them more efficient for both water treatment and biomass production. The goal is to convert the harvested algal biomass into useful products like biofuels or fertilizer, and to reduce the cost and environmental burden of water pollution.
Bandar,Jeffrey Scott	Chemistry	New Synthetic Methodology Enabled by Base-Promoted Halogen and Electron Transfer Processes	Provide chemists with new synthetic capabilities that improve access to compounds highly desired in the pharmaceutical industry to improve human health.
Kim,Seonah	Chemistry	Gasoline Composition Impact on Gasoline Particle Emissions Investigation via Flow Reactor Experiments and Density-Functional Theory	Perform density functional theory and thermodynamic properties simulations on fuel blends identified by NREL and Exxon Mobil Research & Engineering to understand why certain surrogate combinations exhibit a non-linear sooting tendency trend when blended.
Miyake,Garret Morgan	Chemistry	Organic Photoredox Catalysts for Synthetic Method Development	Aims to eliminate the contamination and sustainability concerns posed by precious metal photoredox catalysts while unlocking unprecedented reactivity and mechanistic insights to enhance public health.
Olivo-Delgado,Carlos Javier	Chemistry	Supporting Emerging Aquatic Scientists (SEAS) Islands Alliance	CSU PI Carlos Olivo-Delgado will facilitate and document listening sessions with various interest groups involved in the Puerto Rico Hub portion of the NSF SEAS Islands Alliance project. The listening sessions are designed to solicit input and feedback on existing programming and to inform the trajectory and development of the SEAS Island Alliance.
Apke,Jason	CIRA	Dense Optical Flow Derivation Development and Applications for Fine-Temporal Resolution Satellite Imagery	Atmospheric research and air quality.
Atrash,Dmitri	CIRA	Task 1: CIRA Research and Development for Bipartisan Infrastructure Law (BIL) Provisions 3 and 5	CIRA Research and Development for Bipartisan Infrastructure Law.
Baker,David Frank	CIRA	Reconciling GOSAT, OCO-2, and OCO-3 Data to Estimate Robust Annual Mean CO_2 Fluxes	Reconciling data from GOSAT, OCO-2, and OCO-3 provides the accurate, long-term data needed to manage, mitigate, and create policies for climate change. A precise understanding of carbon dioxide (CO_2) sources and sinks is fundamental to ensuring the planet remains habitable for future generations.
Baker,Ian T	CIRA	Assessing Drivers of Tropical Carbon Flux Variability across Spatial and Temporal Scales with Space-Based Observations	Improve our understanding of both the trend and variability of the tropical carbon flux as well as its drivers on regional scales through the creation and interrogation of a multi-model ensemble of monthly gridded fluxes of CO_2 and CO for 2010-2020 that are constrained by the global in situ network as well as the GOSAT and OCO-2 satellite data.
Brammer,Alan	CIRA	Investigating the Convective Morphology and Diurnal Cycle in Pre-Genesis Disturbances using Object-Based Analysis of Geostationary Satellite Observations	tropical cyclone research.
Chirokova,Galina Yurievna	CIRA	Transition of CIRA Tropical Cyclone Satellite Products to Joint Typhoon Warning Center (JTWC) Operations	Transition of CIRA Tropical Cyclone Satellite Products to Joint Typhoon Warning Center (JTWC) Operations.
Crockett,John Patrick	CIRA	CIRA Research Collaborations with the NWS Meteorological Development Lab	CIRA Research Collaborations with the NWS Meteorological Development Lab Between the Cooperative Institute for Research in the Atmosphere (CIRA) Colorado State University and Meteorological Development Laboratory (MDL) Office of Science and Technology Integration (OSTI) National Weather Service (NWS) National Oceanic and Atmospheric Administration (NOAA) Silver Spring, MD.
Dash,Prasanjit	CIRA	NEAT - CIRA Support to NESDIS Environmental Applications Team (NEAT)	CIRA Support to NESDIS Environmental Applications Team.
Hand,Jennifer L	CIRA	CESU-RM: Assistance for Visibility Data Analysis and Image Display Techniques	This work involves the development of the science and infrastructure needed to address current and future air quality issues, such as improving or developing measurement and modeling methodologies to better understand and quantify the chemical, physical, and optical properties of pollutants and their behavior in the atmosphere.
Haynes,Katherine Diane	CIRA	CIRA/NESDIS Improved Retrievals of Vertical Profiles of Temperature and Moisture Using Numerical Weather Prediction Models Combined with Satellite Data via Machine Learning	Improved data collection for Tropical Cyclone research to improve forecasting.
Hilburn,Kyle	CIRA	Weather-Dependent Probabilistic Forecasting of Wildfire Growth over the USA	Weather-Dependent Probabilistic Forecasting of Wildfire Growth over the USA.
Hurrell,James W	CIRA	Dynamical Downscaling to Quantify Extreme Events Under Stratospheric Sulfate Aerosol Injection	Stratospheric sulfate aerosol injection (SAI), solar climate intervention with collaborator Indiana University.
Lin,Haidao	CIRA	Task 1: Disaster Relief Supplemental Appropriations: Assimilation of Aerosol Optical Depth (AOD) Smoke and Dust Products in the Rapid Refresh Forecast System	Assimilation of Aerosol Optical Depth (AOD) Smoke and Dust Products in the Rapid Refresh Forecast System.
Lin,Liao-Fan	CIRA	Task 1: BIA: CIRA Research of/for Bipartisan Infrastructure Law: Refining Numerical Approaches to Extreme Precipitation Estimation for Infrastructure Hazard Risk Planning	CIRA Research of/for Bipartisan Infrastructure Law: Refining Numerical Approaches to Extreme Precipitation Estimation for Infrastructure Hazard Risk Planning.
Liston,Glen E	CIRA	Documenting the SnowModel Data-Model Fusion System for Terrestrial Hydrology Applications	Proposed development of a User's Guide, Installation Guide, Inputs Guide, Frequently Asked Questions (FAQ) document, Examples Guide, and Analysis Guide for the SnowModel, snow-evolution, data-model fusion system.
Lu,Lixin	CIRA	Integrating and Assessing Alternative UFS Land Surface Parameterization and Initialization Schemes for Improving UFS Forecasts of Drought Intensification and Termination Over the Southeast US	UFS drought forecast.
McGinnis,Ian	CIRA	CIRA Research and Development for Bipartisan Infrastructure Law (BIL) IIA-Fire10: 3D/4D RTMA	CIRA Research and Development for Bipartisan Infrastructure Law.
Mcgraw,Marie C	CIRA	CIRA/NESDIS Research Towards NOAA Center for Artificial Intelligence's (NCAI)	Climate Information Partnership Development and Responsible AI Training.
Miller,Steven D	CIRA	Cooperative Institute for Research in the Atmosphere	Research in the atmosphere.
Noh,Yoo-Jeong	CIRA	CIRA/NESDIS Support to the JPSS Start Science Program: S-NPP/NOAA-20/JPSS VIIRS Cloud Validation	Atmospheric research.
Pedersen,Stine Hoejlund	CIRA	The Future of the Forest-Tundra Ecotone: A Synthesis that Adds Interactions among Snow, Vegetation, and Wildlife to the Equation	A synthesis that adds interactions among Snow, Vegetation, and Wildlife to the forest tundra ecosystem.
Pollack,Ilana B	CIRA	Ammonia for AEROMMA (A4A)	Program to deploy an instrument to collect new observations of gas-phase ammonia (NH_3) aboard the NOAA WP-3D aircraft for an essential measurement for understanding precursor emissions and pollutant formation in large, coastal urban areas.
Riley Dellaripa,Emily Marie	CIRA	Process-Oriented Evaluation of Oceanic Equatorial Waves in the Indian and West Pacific Ocean Forced by Intraseasonal Westerly Wind Events	Process-Oriented Evaluation of Oceanic Equatorial Waves in the Indian and West Pacific Ocean Forced by Intraseasonal Westerly Wind Events.
Rutledge,Steven A	CIRA	COLMA CIRA Support for Research and Development for GOES-R Risk Reduction for Mesoscale Weather Analysis and Forecasting	Research and Development for GOES-R Risk Reduction for Mesoscale Weather Analysis and Forecasting.
Schneider,John Peter	CIRA	CIRA Research and Development for Bipartisan Infrastructure Law (BIL) Task 1	Cooperative Institute for Research in the Atmosphere (CIRA) Task 1 of the Bipartisan Infrastructure Law (BIL) focuses on improving flood and wildfire forecasting to build national climate adaptation capacity. As part of a larger NOAA initiative, this task supports communities in the western U.S. and other regions that are at risk from severe weather events.
Schuh,Andrew	CIRA	Using a Novel Multiscale GCM to Characterize the Brazilian Carbon Cycle	Using a Novel Multiscale GCM to Characterize the Brazilian Carbon Cycle.
Seaman,Curtis	CIRA	Geo SLIDER - CIRA/NESDIS Support for Maintenance and Updates to the Geostationary Satellite Loop Interactive Explorer in Real Time (GEO SLIDER)	Atmospheric research.
Strong,Bonny Lynn	CIRA	CIRA Research and Development for Bipartisan Infrastructure Law (BIL) IIA-FIRE2: Short Range Fire Weather Research	Short Range Fire Weather Research.
Sullivan,Amy P	CIRA	Near Real-Time Aerosol Composition Measurements during the Atmospheric Emissions and Reaction Observed from Megacities to Marine Area (AEROMMA)	Interactions of urban and marine emissions and chemistry as well as their impact on air quality and climate. Characterizing the aerosol in both of these environments would be necessary to address many of the planned science questions for this mission.
Terborg,Amanda Michelle	CIRA	Research Collaboration at the NWS Aviation Weather Center in Support of the Aviation Weather Testbed and the Aviation Weather Research Program	This collaboration focuses on evaluating new weather products and services, ensuring a continuous effort to integrate them into operational aviation meteorology through the development and maintenance of new products. The AWC works with partners to improve flight safety and efficiency by providing weather information and forecasts, and the testbed allows for the evaluation of experimental products before they are widely deployed. This research is related to sustainability through its focus on improving aviation efficiency, which in turn reduces fuel consumption and lowers emissions.
Trogdon,Taylor Verner	CIRA	CIRA Research and Development for Bipartisan Infrastructure Law (BIL) - Research	CIRA Research and Development for Bipartisan Infrastructure Law research projects advance NOAA's next-generation weather models and improve precipitation estimates.
Uden,Dana Marie	CIRA	CIRA Research and Development for Bipartisan Infrastructure Law (BIL) IIA Fire4: Observations	Fire observations research.
Ware,Valerie	CIRA	Collaboration between CIRA and the Office of Science and Technology Integration (OSTI) in the Social, Behavioral, and Economic Sciences	Research projects fall under the umbrella of ensuring equitable services to all communities and include understanding the human response to water hazards, supporting the improvement of tsunami warning messages, and space weather advisory group user needs support.
Alves Meira Neto,Antonio	Civil + Environmental Engineering	Developing Ecophysiological Components for Post-Fire Hydrologic Models	Developing Ecophysiological Components for Post-Fire Hydrologic Models.
Arabi,Mazdak	Civil + Environmental Engineering	Polaris Land Use & Water Planning Tool, Phase II	Integrated Land Use Planning and Water Management in Colorado Communities.
Bailey,Ryan T	Civil + Environmental Engineering	Parameterization and Testing of New Groundwater Flow and Salinity Model in the National Agroecosystem Model	Parameterization and Testing of New Groundwater Flow and Salinity Model in the National Agroecosystem Model.
Carter,Ellison	Civil + Environmental Engineering	Citizen-Science Technology for Healthy Living at Home	Citizen-Science Technology for Healthy Living at Home.
Chavez,Jose L	Civil + Environmental Engineering	Using Remote Sensing Data to Highlight Salinization Patterns Across an Irrigated River Basin in Relation to Contributing Factors	Using Remote Sensing Data to Highlight Salinization Patterns Across an Irrigated River Basin in Relation to Contributing Factors.
David,Olaf	Civil + Environmental Engineering	SWAT-C Based Soil Carbon Modeling Service for Nutrient and GHG Quantification	SWAT-C based Soil Carbon Modeling Service for Nutrient and GHG Quantification.
Gates,Timothy K	Civil + Environmental Engineering	South Platte River Basin Salinity Study	Colorado South Platte River Basin Salinity Characterization Study.
Guo,Yanlin	Civil + Environmental Engineering	CAREER: Enhancing Hurricane Resistance of Building Envelopes under Urban Development in a Changing Climate	Enhancing hurricane resistance of building envelopes under urban development in a changing climate.
Morrison,Ryan Richard	Civil + Environmental Engineering	SRS RN: Transforming Rural-Urban Systems: Trajectories for Sustainability in the Intermountain West	Transforming Rural-Urban Systems: Trajectories for Sustainability in the Intermountain West.
Nelson,Peter August	Civil + Environmental Engineering	Geomorphology and Hydraulic Impacts of Post-Fire In-Stream Treatments	Geomorphology and hydraulic impacts of post-fire in-stream treatments.
Niemann,Jeffrey D	Civil + Environmental Engineering	CPS: Medium: Making Every Drop Count: Accounting for Spatiotemporal Variability of Water Needs for Proactive Scheduling of Variable Rate Irrigation Systems	Ensuring that yields and productivity of cropping systems can grow to meet the demands of a growing population.
Pallickara,Sangmi Lee	Civil + Environmental Engineering	CPS: Medium: Making Every Drop Count: Accounting for Spatiotemporal Variability of Water Needs for Proactive Scheduling of Variable Rate Irrigation Systems	Ensuring that yields and productivity of cropping systems can grow to meet the demands of a growing population.
Sharvelle,Sybil E	Civil + Environmental Engineering	From Storms to Supply: A Framework to Integrate Stormwater Capture into Water Supply Planning	From Storms to Supply: A Framework to Integrate Stormwater Capture into Water Supply Planning.
Smith,Ryan G	Civil + Environmental Engineering	Improving Remote Sensing and Machine Learning-Driven Groundwater Withdrawal Estimation in Arizona: Insights into Surface Water Deliveries, Irrigation Efficiency, and Long-Term Forecasts	Improving remote sensing and machine learning-driven groundwater withdrawal estimation in Arizona: Insights into surface water deliveries, irrigation efficiency, and long-term forecasts.
Thornton,Christopher I	Civil + Environmental Engineering	Hydraulic-Model Study of the Halligan Water Supply Outlet Works and Spillway	Hydraulic-Model Study of the Halligan Water Supply Outlet Works and Spillway.
Venayagamoorthy,Subhas K	Civil + Environmental Engineering	Dynamics and Modeling of Small-Scale Nonlinear and Nonhydrostatic Phenomena in Oceanic Flows	Dynamics and modeling of small-scale nonlinear and nonhydrostatic phenomena in oceanic flows.
Wible,Tyler Cassidy	Civil + Environmental Engineering	CESU-RM: Bill Williams Riverine Environmental Flow Decision Support Tool (BEEFDST) and Green River Analysis	Environmental Flow Decision Support Tool and Green River Analysis.
Aguirre,A Alonso	Clinical Sciences	Reducing Security Risks from the Intersectionality of Wildlife Trafficking and Biosafety from Zoonotic Pathogens in Africas Greater Limpopo Transfrontier Conservation Area	Reducing Security Risks from the Intersectionality of Wildlife Trafficking and Biosafety from Zoonotic Pathogens in the Greater Limpopo Transfrontier Conservation Area in Africa.
Monnet,Eric	Clinical Sciences	Utilization of Indocyanine Green in Dogs	Public health determination of the appropriate dosage and timing of visualization of the biliary tract after indocyanine injection and effect of one-lung ventilation on the diffusion of indocyanine green to the hilar lymph nodes. The research on ICG in dogs advances efficiency and quality in veterinary medicine. These benefits contribute to sustainable practices by reducing waste, conserving resources, and promoting better outcomes in animal health.
Wolfe,Barbara Ann	Clinical Sciences	Reducing Security Risks from the Intersectionality of Wildlife Trafficking and Biosafety from Zoonotic Pathogens in Africas Greater Limpopo Transfrontier Conservation Area	Reducing Security Risks from the Intersectionality of Wildlife Trafficking and Biosafety from Zoonotic Pathogens in the Greater Limpopo Transfrontier Conservation Area in Africa.
Baldwin,Thomas D	Colorado Natural Heritage Program	CESU-RM: Noxious Weed Mapping at the U.S. Air Force Academy	CNHP will map all known noxious weeds at the U.S. Air Force Academy under Grant No F23AC01067-00.
Davidson,Ana	Colorado Natural Heritage Program	Collaborative Research: EDGE CMT: Predicting the Evolution of Disease Resistance across Heterogeneous Landscapes	This research aims to uncover how components of complex natural systems facilitate the evolution of resistance to introduced pathogens, and how such resistance may transform landscape-scale disease dynamics. The emerging resistance to plague (Yersinia pestis) in prairie dogs (Cynomys spp.) will serve as a model system for this investigation. Prairie dogs, keystone species of North America's central grasslands, have experienced dramatic population reductions over the past century due to sylvatic.
Lambert,Bradley A	Colorado Natural Heritage Program	Arapaho-Roosevelt National Forest Northern Leopard Frog	Study of Arapaho-Roosevelt National Forest Northern Leopard Frog
Lemly,Joanna	Colorado Natural Heritage Program	CESU-CP: BLM Utah Aquatic Monitoring Support	The proposal is to support BLM Utah with aquatic monitoring
Menefee,Michael D	Colorado Natural Heritage Program	Colorado Conservation, Outdoor Recreation & Climate Resilience Planning	Develop a statewide conservation and recreation plan that is informed by regional efforts and includes a vision, goals, metrics, climate roadmap, and social sustainability strategy.
Schorr,Robert	Colorado Natural Heritage Program	Using Citizen Science to Understand Bat Roosting in Red River Gorge, Kentucky	This project will assess recreational rock climbers' interest in collaborating and supporting Climbers for Bat Conservation.
Siemers,Jeremy	Colorado Natural Heritage Program	CESU-CP: Mesa Verde National Park Bat Acoustic Data Processing	This project will analyze bat acoustic data collected at Mesa Verde National Park for the NABat Monitoring Program.
Smith,Gabrielle A	Colorado Natural Heritage Program	Fen Mapping	Potential groundwater-fed wetlands will be identified from digital aerial photography and topographic maps, based on the best estimation of fen boundaries and attributed with a confidence value.
Smith,Jessica Peterson	Colorado Natural Heritage Program	Rare Plant and Wildlife Surveys on the White River National Forest	Collect field data on fens, groundwater fed wetlands, in the White River National Forest and summarize data.
Bucholz,Ethan	Colorado State Forest Service	Remote Sensing of Forest Structural Heterogeneity	Remote Sensing of Forest Structural Heterogeneity, Forest Monitoring
Cabot,Perry Edmund	Colorado Water Center	Evaluating Conserved Consumptive Use in the Upper Colorado River	Evaluating Conserved Consumptive Use in the Upper Colorado River.
Schneekloth,Joel	Colorado Water Center	Precision Farming for Development of Sustainable Dryland Cropping Systems of the Central Great Plains Region	Provide a quantitative understanding of inputs in dryland rotations can best be optimized across variable field landscapes and variable climate for improving farm gate income.
Tracy,John C	Colorado Water Center	2023CO Tracy Administration	Support the development of a well-educated water workforce
Dunn,Thomas	Communication Studies	The NCA Caucus on LGBTQ Concerns Archive Index Project	Catalogue, index, and preserve historical documents from the NCA Caucus on LGBTQ Concerns.
Keys,Patrick W	Computer Science	Theme 3: Ag-Forestry-AI (AgFoAI): AI Institute for Agriculture and Forest Mitigation and Adaptation to Climate Change	AI-driven advances in mitigation through improved GHG, carbon, and soil health modeling to support decision-support systems at multiple scales (e.g., COMET-Farm, COMET-Planner) and improve soil-based emissions estimates in the US National Greenhouse Gas Inventory. In addition, AI-driven advances in risk assessment and adaptation planning, Adaptation-mitigation tradeoffs and synergies, and Advances in AI methods.
Mueller,Nathaniel Dean	Computer Science	Theme 3: Ag-Forestry-AI (AgFoAI): AI Institute for Agriculture and Forest Mitigation and Adaptation to Climate Change	AI-driven advances in mitigation through improved GHG, carbon, and soil health modeling to support decision-support systems at multiple scales (e.g., COMET-Farm, COMET-Planner) and improve soil-based emissions estimates in the US National Greenhouse Gas Inventory. In addition, AI-driven advances in risk assessment and adaptation planning, Adaptation-mitigation tradeoffs and synergies, and Advances in AI methods.
Pallickara,Shrideep	Computer Science	Participant Support: Frameworks: Collaborative Proposal: Software Infrastructure for Transformative Urban Sustainability Research	Urban sustainability, spatial temporal data, analytics, process voluminous spatiotemporal datasets.
Ray,Indrajit	Computer Science	CyberSim: A Flexible Simulation Environment for the Evaluation of Cyber Risk in Nuclear Power Plants in Support of the Design of Cyber Protection Architectures	Flexible Simulation Environment for the Evaluation of Cyber Risk in Nuclear Power Plants in Support of the Design of Cyber Protection Architectures.
Ray,Indrakshi	Computer Science	Protecting Cyber Physical Systems using NIST Next Generation Access Control	Distributed Energy Resources (DER) are small-scale energy generation and storage resources connected to power grids which are responsible for distributing energy to the consumers, studying various forms of renewable energies to make them more decentralized and secure.
Sreedharan,Sarath	Computer Science	An AI Tutoring System for Pollinator Conservation Community Science Training	Build an adaptable AI agent that will automatically detect a volunteer's current level of expertise to provide training for the Pollinator Conservation Community Science program to help engage citizen scientists.
Goodrum,Paul McGinley	Construction Management	Improving Construction Work Performance through Human-Centered Augmented Reality	Improving construction work performance and safety through Human-Centered Augmented Reality.
Hooten,Mevin B	Cooperative Fish + Wildlife Research	RWO 123 Modeling Brook Trout Population Responses to Climate Variation in the Southeast USA	Examing how landscape features affect population responses of brook trout to climate and how does climate interact with local conditions to generate spatial variability in trout population responses.
Kendall,William L	Cooperative Fish + Wildlife Research	A Comparison of Foraging Behavior, Body Condition and Survival of Emperor Geese Wintering at Shemya and Kodiak Islands, Alaska	The causes of the historical decline in emperor goose abundance, and subsequent slow recovery, remain poorly understood so we propose to enhance existing ADFG studies of emperor geese overwintering at two geographically distinct locations in Alaska: Shemya Island and the Kodiak Archipelago.
Winkelman,Dana	Cooperative Fish + Wildlife Research	Development of Protective Temperature Criteria for Bluehead Sucker, Flannelmouth Sucker and Roundtail Chub Larvae	In addition to determining the acute thermal tolerance range for the three species, water samples will also be collected to understand water quality in those streams.
Emerson,Ethan Walker	CSU Energy Institute	Controlled Releases at Complex Facilities	Two-phase approach to test and refine Project Canary's new methane quantification models and technologies at complex facilities that are either a dormant midstream (or similar) facility or a synthetic site that has large obstructions and is classified as aerodynamically complex.
Hodshire,Anna Lily	CSU Energy Institute	Colorado Ongoing Basins Emissions Study (COBE)	This project aims to develop a measurement-based inventory for the statewide upstream oil and gas sector utilizing site-level aircraft quantification of emissions to help facilitate the state of Colorado's efforts to enact greenhouse gas (GHG) reduction measures.
Vaughn,Timothy Lee	CSU Energy Institute	SLR Pulsli Single-Blind Controlled Release Testing in South Texas	CSU will support SLR's proposal to perform an independent single-blind controlled gas release testing of Pulsli's methane quantification technology at client's given field site near Encinal, TX, in the Eagle Ford basin.
Zimmerle,Daniel J	CSU Energy Institute	GTI Energy AOIS Tank Emissions Proposal	Characterize emissions from tanks to improve the accuracy and completeness of emissions reported in inventories.
Hill,Rebecca Lynn	CSU Extension - Administration	Colorado AgrAbility Project	Colorado AgrAbility Project (CAP) to increase the likelihood that Colorado farmers, farm workers, and farm family members with disabilities will experience success in agricultural production and enhance the quality of life of farmers, ranchers and other agricultural workers with disabilities, so that they, their families, and their communities continue to succeed.
John,Gilbert	CVMBS College Office	Multi-Track Post-Baccalaureate Research Education Program (MT PREP)	Post-baccalaureate research training to prepare underrepresented groups pursuing advanced degrees or entering careers in the biomedical sciences.
Tavener,Simon J	Dean of Natural Sciences	CESU-RM: Improving NPS Visitor Use Statistics Data Quality and Internal Data Management	Cooperatively engage in the improvement of the National Park Service Visitor Use Statistics to support the parks.
Li,Yan	Design + Merchandising	Cellulose Nanocrystals Derived from Hemp Argo Waste - A Green Bioproduction for Sustainability and Circular Economy in Colorado	Establish the proof of principle of a sustainable method of producing cellulose nanocrystals (CNCs) using agrowaste from hemp production to provide a value-added solution to agrowaste from production of the crop in Colorado.
Zahran,Sammy J	Economics	Research on the Economics of Civil and Military Airport Wildlife Hazards and Wildlife-Aircraft Collisions	Application of economic theory and applied econometrics to study the economics of airport wildlife hazards, aircraft- wildlife collisions (i.e., wildlife strikes), and wildlife hazard management at civil and/or military facilities.

Baudoin Farah,Claudia Andrea	Ecosystem Science + Sustainability	Pro-Agua 3: Integrating Ecosystem Services Values in Local and Regional Policy Instruments for Conservation and Sustainable Development in the Llanos de Moxos, Bolivia	Support the implementation of sustainable development alternatives in Llanos de Moxos, the biggest wetland complex in the Amazon, which is threatened by climate change and potential massive land conversion to intensive agriculture.
Cusack,Daniela Francis	Ecosystem Science + Sustainability	LTREB: How Does Inter-Annual Variation in Rainfall Interact with Soil Fertility and Chronic Disruption of Soil Moisture Dynamics to Alter Soil C Cycling in Tropical Forests?	Assess the effects of decadal-scale chronic drying and interannual variation in rainfall on tropical forest carbon across biogeographic gradients, considering effects of natural seasonal drying, interannual rainfall variation, and throughfall reduction effects on soil CO2 fluxes (i.e., carbon losses) from four distinct tropical forests in Panama.
Fassnacht,Steven	Ecosystem Science + Sustainability	CESU-RM: Supporting States Clean Water Act Integrated Reporting	Ongoing Clean Water Act project with National Park Service through the Rocky Mountains Cooperative Ecosystem Studies Unit.
Kampf,Stephanie K	Ecosystem Science + Sustainability	Post-Fire Runoff Response in Mulched Montane Catchments	Examine how streams in burned forested watersheds are affected by mulch applications.
O'Connell,Jessica L	Ecosystem Science + Sustainability	A Regional Assessment of Ecosystem Services Provisioning in Restored Coastal Wetlands	Develops an open source remote sensing tool to evaluate ecosystem services in other wetland restoration sites.
Ross,Matthew Richard Voss	Ecosystem Science + Sustainability	Water Quality Portal Analysis for Municipality Use	Build a code base to make it easier and more intuitive for municipalities to analyze water quality portal data.
Warnock,Andrew C	Education + Outreach Center	Rediscovering North America's Forgotten Fossil Forests and Inspiring the Next Generation of Paleobotanists	Work with CSU's STEM education students to develop a rubric to evaluate student notebook entries and measure the STEM kit's effectiveness in developing paleo botanical knowledge and skills.
Chen,Haonan	Electrical + Computer Engineering	AI for Weather Information	AI for Weather Information to inform forecasts and public safety
Jankowska,Elzbieta	Electrical + Computer Engineering	Amorphous Oxide Interference Coatings for Multi-Gigashot Lifetime for Inertial Fusion Energy Laser Drivers	Amorphous oxide interference coatings are a promising technology being developed to achieve the multi-gigashot lifetime needed for the high-repetition-rate laser drivers in future Inertial Fusion Energy (IFE) power plants. These coatings offer enhanced resistance to the intense ultraviolet (UV) radiation that causes premature damage in conventional crystalline optical coatings. The research on amorphous oxide interference coatings contributes to sustainability by helping to develop Inertial Fusion Energy (IFE), a potential source of nearly limitless, clean energy. The coatings address a major hurdle for IFE by increasing the durability of laser optics, making a viable commercial power plant more feasible.
Pasricha,Sudeep	Electrical + Computer Engineering	DESC: Type 2: Sustainable Ecosystems Computing	Sustainable Ecosystems Computing
Pezeshki,Ali	Electrical + Computer Engineering	Learning to Prevail: Communication in Contested and Adversarial Environments	Learning to Prevail: Communication in Contested and Adversarial Environments
Clark,Maggie Lynn	Environ + Radiological Health Sciences	Effects of Early Life Exposure to Household Air Pollution on DNA Methylation and Respiratory Disease in Guatemalan Children from the Household Air Pollution Intervention Network (HAPIN) Trial	Follow-up of the HAPIN (Household Air Pollution Intervention Network) trial participants in Guatemala to characterize the impact of the 500-day randomized LPG (liquified petroleum gas) stove intervention on later health impacts. Specifically, we will examine molecular and respiratory effects of household air pollution in children aged 4-7 years in the HAPIN trial.
Gries,Tara Marie	Environ + Radiological Health Sciences	Omega-3 Fatty Acids Induce Macrophage IL-22 Signaling to Promote Resolution of Dust-Induced Lung Inflammation	This grant aims to identy how omega-3 fatty acids induce macrophage IL-22 signaling to promote resolution of organic dust-induced lung inflammation. The research on omega-3 fatty acids and lung inflammation relates to sustainability through its connections to agricultural worker health and the environmental impact of sourcing omega-3s. It highlights two key aspects: creating sustainable working conditions and ethically sourcing resources.
Peel,Jennifer L	Environ + Radiological Health Sciences	Household Air Pollution and Health: A Multi-Country LGP Stove Intervention Trial: Assessing the 5-Year Effects of a 500-Day Liquefied Petroleum Gas Cooking Intervention	Household Air Pollution Intervention Network (HAPIN) trial evaluating the effect of a free LPG (liquefied petroleum gas) stove and fuel intervention among 800 pregnant women in each of 4 countries (Guatemala, India, Peru, Rwanda) on birth outcomes and child health through age 1.
Pennington,Whitney	Environ + Radiological Health Sciences	Outreach Core: High Plains Intermountain Center for Agricultural Health and Safety (HICAHS)	Develop new and creative research related to human health and safety in agriculture and forestry within Federal Region VIII. Build research capacity related to human health and safety in agriculture and forestry in Federal Region VIII. Foster new, collaborative partnerships among researchers, private industry, and regional and federal government agencies with stakeholder interests in human health and safety in agriculture and forestry.
Rojas Rueda,David	Environ + Radiological Health Sciences	Update Colorado EnviroScreen version 2	Developing the methods and code for the CO EnviroScreen 2.0
Schaeffer,Joshua William	Environ + Radiological Health Sciences	Air Pollutants, Heat Exposure, and Kidney Health: A Longitudinal Study in Women in Central America	To characterize environmental exposures (e.g., to particulate matter) among female sugarcane and non-sugarcane workers during work and non-work shifts to better understand risk of kidney injury.
Slayden,Richard A	Environ + Radiological Health Sciences	Deciphering Innate Immune Signaling Mechanisms in Glial Cells Linking Lifetime Environmental Exposures to Neuroinflammation, Protein Aggregation and Neurodegeneration in Parkinsons Disease	Examining how exposure to environmental neurotoxins and viruses influences the development and progression of Parkinson's disease.
Tjalkens,Ronald B	Environ + Radiological Health Sciences	Nuclear Receptor NR4A2 as a Therapeutic Target for Parkinsons Disease	Examine the role of the receptor, NR4A2/Nurr1, as a modulator of Parkinson's disease under the overall direction of Environmental and Radiological Health Sciences.
Valley,Morgan Anne	Environ + Radiological Health Sciences	PE Core - Emerging Issues: High Plains Intermountain Center for Agricultural Health and Safety (HICAHS)	Develop new and creative research related to human health and safety in agriculture and forestry within Federal Region VIII. Build research capacity related to human health and safety in agriculture and forestry in Federal Region VIII. Foster new, collaborative partnerships among the HICAHS researchers, private industry, and regional and federal government agencies with stakeholder interests in human health and safety in agriculture and forestry.
Bailey,Larissa	Fish, Wildlife + Conservation Biology	CESU-RM: Effects of Climate on Host-Pathogen Distribution Dynamics for High-Elevation Amphibian Systems. (USGS)	Address the gap in our ecological understanding and help to develop a model to predict climate change effects on host-pathogen dynamics for the Boreal Toad, which is a declining high-elevation amphibian species that is state-listed in CO, WY, and NM.
Berger,Joel	Fish, Wildlife + Conservation Biology	Impacts of Increasing Noise on Desert Bighorn Sheep - Year 2	Impacts of Increasing Noise on Desert Bighorn Sheep
Bestgen,Kevin R	Fish, Wildlife + Conservation Biology	Colorado Sculpin Study - Year 3	Improved understanding of morphological differences between the two Colorado sculpin taxa, and whether they are useful to differentiate taxa, is required to aid effective management and conservation efforts.
Crooks,Kevin	Fish, Wildlife + Conservation Biology	Non-Lethal Tool Development and Evaluation for Predator Management	Develop and evaluate new non-lethal tools for predator management.
Goldstein,Liba Pejchar	Fish, Wildlife + Conservation Biology	Assessing the Status, Distribution, Movement Corridors, and Foraging Habitat Requirements of Nectar Bats in New Mexico through eDNA, PIT Tag Detection, and Diet Analysis	Assessing the Status, Distribution, Movement Corridors, and Foraging Habitat Requirements of Nectar Bats in New Mexico through eDNA, PIT Tag Detection, and Diet Analysis
Horton,Kyle	Fish, Wildlife + Conservation Biology	Aeroecology, an Emerging Ecological Frontier for Addressing Modern Conservation Challenges	Extend the use of NASA remote sensing products toward forecasting avian migration, deliver a tool for actionable aerial conservation, foster interactive public outreach, and train graduate and undergraduate students to form a center for aeroecology.
Kanno,Yoichiro	Fish, Wildlife + Conservation Biology	Ranking and Visualizing Eastern Brook Trout Habitats to Guide their Range-Wide Management	Analyze existing brook trout and stream temperature data in the eastern USA to inform their management in a warming climate.
Koons,David N	Fish, Wildlife + Conservation Biology	An Integrated Population Model for Sustainable Harvest Management of White-Winged Doves	Enable sustainable management of White Winged Doves harvest amidst other environmental variables that affect their population dynamics.
Myrick,Christopher A	Fish, Wildlife + Conservation Biology	CESU-RM: Seasonal Abundance, Population Structure, and Diet of Nectivorous Bats in Southwestern New Mexico in Relation to Contemporaneous Food Availability	Factors that influence movement, population size, and population demography of long-nosed bats in southwestern New Mexico, including climate data, nectar availability and optimal diets.
Preston,Daniel	Fish, Wildlife + Conservation Biology	Evaluating Effects of Wildfire on Stream-Riparian Food Webs	Quantify how wildfire has affected connections between stream and riparian food webs within occupied or suitable habitat for native cutthroat trout by surveying 10 sites in the first three years post-fire, representing paired burned/unburned stream reaches. All sites will be located within the Arapaho National Forest.
Stoner,Kathryn Elizabeth	Fish, Wildlife + Conservation Biology	US-Israel Collab: Market Integration, Land Use, and Pathogen Transmission	Movement of People, Small Mammals, and Pathogens in Relation to Land Use Change and Market Integration in Rural Madagascar
Wittemyer,George	Fish, Wildlife + Conservation Biology	Using Smartphone GPS Locations to Track Increased Visitation and Minimize Impacts on Wildlife	Using Smartphone GPS Locations to Track Increased Visitation and Minimize Impacts on Wildlife
Gentile,Christopher L	Food Science + Human Nutrition	Stotz K01: Food Insecurity and Diabetes Education for American Indian and Alaska Natives with Type 2 Diabetes	Developing and evaluating innovative diabetes nutrition education programs to address diabetes self-care management, diabetes prevention, and food security among individuals at risk for or diagnosed with diabetes.
Davis,Thomas Seth	Forest + Rangeland Stewardship	CAREER: Is Phytohormone Crosstalk the Mechanism that Predisposes Drought-Stressed Conifers to Bark Beetle Attack	Is Phytohormone the Mechanism that Predisposes Drought-Stressed Conifers to Bark Beetle Attack
Baral,Srijana	Forest + Rangeland Stewardship	Effectiveness of Transferable Tax Credit Incentives for Conservation	Examines the impact of tax incentives on conservation easement adoptions in different states of the US.
Chambers,Marin Erica	Forest + Rangeland Stewardship	Adaptive Silviculture for Climate Change	Colorado Forest Restoration Institute to complete pre-treatment monitoring and remeasurement of plots that we helped to establish between 2019-2023 to collect baseline conditions for ongoing monitoring of changes in tree growth, mortality, and regeneration, as well as a forest health evaluation of insect and disease for one of the Adaptive Silviculture for Climate Change project sites.
Cheng,Antony S	Forest + Rangeland Stewardship	Collaborative Adaptive Management to Support Wildfire Resilient Forests, Watersheds, and Communities on the CO Front Range Phase	Monitoring and adaptive management for the Arapahoe-Roosevelt and Pike San Isabel National Forests.
Cooper,David Jonathan	Forest + Rangeland Stewardship	Wetland and Riparian Ecological Monitoring, Conservation, Management, and Restoration Collaboration	Work with the US Forest Service in Oregon to develop and implement a long term monitoring program for groundwater-fed wetlands. The goal is to design and implement hydrology and vegetation monitoring to quantify the characteristics of fens in their natural condition, and those grazed by livestock. These data and analyses will be used to assist the Forest Service in understanding the influence of grazing on fens and develop suitable guidelines for quantifying use.
Courkamp,Jacob S	Forest + Rangeland Stewardship	The Effects of Cheatgrass Management with Indaziflam on Live Fuel Moisture Content in Rangeland Plant Communities along the Colorado Front Range	We will track the effects of herbicide treatments for invasive annual grasses on fuel moisture content over the summer at several open space sites along the Colorado Front Range. Fuel moisture is a key factor influencing wildfire behavior and risk; thus, better understanding the effects of herbicide treatment on fuel moisture will provide Front Range land managers with important information that can help determine priorities for natural resource and invasive plant management.
David-Chavez,Dominique Mari	Forest + Rangeland Stewardship	Large-Scale CoPe: Rising Voices, Changing Coasts: The National Indigenous and Earth Sciences Convergence Hub	This large-scale climate research hub will sustain regional networks between Indigenous knowledge holders and community members, physical and ecological Earth systems scientists, social scientists, and early career scholars from underrepresented cultural communities to facilitate convergence research to improve data models for coastal change in the Arctic, Gulf of Mexico, U.S. Caribbean, and Pacific Island regions, and to inform geohazard and natural disaster planning.
Francis,Emily J	Forest + Rangeland Stewardship	CESU-RM: Co-Development of Geospatial Data Products to Support Fuel Treatment Planning and Monitoring in the Upper Rio Grande Watershed	Develop geospatial data products characterizing forest structure and fuel conditions in the upper Rio Grande watershed.
Hart,Sarah Jane	Forest + Rangeland Stewardship	Understanding the Effects of Hazardous Fuel Treatment Reductions on Landscape-Level Patterns of Wildfire Activity, Effects, and Suppression Operations	Understanding the Effects of Hazardous Fuel Treatment Reductions on Landscape-Level Patterns of Wildfire Activity, Effects, and Suppression Operations
Havrilla,Caroline	Forest + Rangeland Stewardship	Coupling Biocrusts and Vegetation Dynamics to Improve Predictions of Dryland Change	Modeling spatial organization of biocrust and plant communities with lead institution is UC Davis
Hoffman,Chad M	Forest + Rangeland Stewardship	Object-Based Aggregation of Fuel Structures, Physics-Based Fire Behavior and Self-Organizing Smoke Plumes for Improved Fuel, Fire, and Smoke Management on Military Lands	Project links multiple technologies together to better understand prescribed fire.
Mola,John	Forest + Rangeland Stewardship	CESU-RM: Understanding Overwintering and Long-Term Demography of Imperiled Bumble Bees - Year 2	Bumble bee overwintering study.
Ocheltree,Troy W	Forest + Rangeland Stewardship	Understanding Mechanisms and Indicators of Northern Grassland Recovery from Flash Drought to Inform Post-Drought Grazing Management Decisions	Understand the impact to forage quality and quantity that drought have when they occur at different times of year as drought has a major impact on the quantity and quality of forage and, ultimately, can impact the financial sustainability of ranching operations and the timing of drought is becoming more variable during the growing season making it more difficult for stakeholders to predict the impact a drought might have on their annual income.
Schultz,Courtney Allison	Forest + Rangeland Stewardship	Phase 2 Quantitative Research and Development Deputy Area Study	Understanding the use of Forest Service research products in management by implementing a survey.
Shaw,Jeremy Robert	Forest + Rangeland Stewardship	Assessing the Sensitivity of Colorado's Mountain Landscapes to Road Salt: Guidance for sustainable Winter Road Management	Assessing the sensitivity of Colorado's mountain wetlands (soils, water, and vegetation) to road salt. Will help inform winter road management to minimize environmental impacts.
Stevens-Rumann,Camille S	Forest + Rangeland Stewardship	Empirical Assessments of Post-Wildfire Fuel Treatment Outcomes Under Changing Climate	Evaluating treatment effectiveness in the face of wildfires in a changing fire landscape.
Wei,Yu	Forest + Rangeland Stewardship	Develop a Software Tool to Support Efficient National Forest Service Planning	Develop a Software Tool to Support Efficient National Forest Service Planning.
Wolk,Brett H	Forest + Rangeland Stewardship	Geospatial Inventory of Post-Fire Hillslope to Stream Biogeochemical Linkages	The Colorado Forest Restoration Institute will implement and monitor post-fire watershed restoration practices that include a wide array of biological and physical approaches designed to facilitate riparian vegetation recovery and enhance natural stream channel dynamics and valley bottom complexity to trap sediment, dissipate flood flows, and retain nutrients and carbon.
McGrath,Daniel	Geosciences	CESU-RM: Resolving Spatial and Temporal Variability of Snow Accumulation in Mountain and Glacier Environments	The result of this work will be an unprecedented dataset, characterizing all glaciers within the Alaska region, providing metrics of glacier vulnerability, and the detailed characteristics supporting those metrics.
Ronayne,Michael J	Geosciences	Dye Tracing and Springshed Characterization Near Fort Leonard Wood, Missouri - Year 2	Geohydrologic assessment to investigate water sources and potential contaminant pathways for Shanghai Spring, which is located near the Fort Leonard Wood (FLW) Military Reservation.
Rugenstein,Jeremy Kesner Ca	Geosciences	Quantify the Role of Mountain Block Recharge on the Denver Basin Aquifer System Water Budget using the Stable Isotopes of Water	Collect precipitation and groundwater isotopes from the Front Range to study groundwater recharge in the Denver Basin Aquifer System.
Sanford,William E	Geosciences	CESU-RM: NPS Groundwater Data Management	Collect, compile, and develop a database for existing and new information describing groundwater resources of National Park Service units in Upper Colorado Basin (i.e. Wyoming, Utah, Colorado, and New Mexico). Ultimately, this project aims to support NPS efforts to identify and mitigate existing threats to park groundwater resources and proactively secure park water supplies.
Schutt,Derek L	Geosciences	Collaborative Research: Development and Application of a Framework for Integrated Geodynamic Earth Models	Develops the capabilities for realistic, whole-Earth computer simulations of motion over geologic time scales. The open source software developed herein will run on supercomputer facilities and incorporate many data sets the describe the Earth's current state.
Wohl,Ellen E	Geosciences	The Role of Large Wood in Promoting Channel-Floodplain Connectivity for River Restoration - Engineering	Survey logjams in three field sites in Colorado, Iowa, and Montana and use these field data with numerical models to understand how logjams influence channel-floodplain hydrological connectivity.
Lipsey,Tiffany	Health + Exercise Science	Wildland Fire Fighters: Exposure assessment, Carcinogenic Effects and Risk Management	CSU will act as data collection site for study on Wildland Fire Fighters, including exposure assessment, carcinogenic effects and risk management.
Orsi,Jared P	History	CESU-RM: Death Valley National Park Oral History Internship	Transcribe existing oral histories for Death Valley National Park, conduct one or more additional new oral histories, and present findings publicly.
Payne,Sarah R	History	Sitka NHP Historic Resources Study	The project will produce a Historic Resource Study for Sitka which will include primary source research to produce historic contexts and fieldwork to identify cultural resources associated with historic contexts.
Bauerle,William L	Horticulture + Landscape Architecture	Developing Cannabis Irrigation and Nutrient Use Best Practices	Quantify water and nutrient use for Cannabis and communicate the information to the scientific community and Cannabis production industry to make better use of increasingly scarce fresh-water resources and lower fertilizer inputs, a point source of pollution from Cannabis production facilities.
Bousselot,Jennifer M	Horticulture + Landscape Architecture	Exploring Regionally-Available Substrates for Sustainable Container Production of Colorado Native Plants	Evaluate regionally-sourced growing media for use in peat-free or peat-reduced nursery container production of Colorado native plant species.
Burcham,Daniel C	Horticulture + Landscape Architecture	Colorado Collaborative Exchange for Tree Monitoring and Evaluation	Colorado collaborative exchange for tree monitoring and evaluation collaboration between CSU Extension and CSFS.
Craver,Joshua Ken	Horticulture + Landscape Architecture	Tailoring Hydroponic Factors to Controlled-Environment Production of Emerging Food Crops	Develop mitigation strategies for common diseases and physiological disorders on emerging crops which limit their adoption for controlled-environment production.
Gu,Mengmeng	Horticulture + Landscape Architecture	IR-4 Minor Crop Pest Management (2022)	Conducting herbicide, insecticide, and fungicide crop safety evaluations on numerous container-grown herbaceous perennials and annuals.
Klett,James E	Horticulture + Landscape Architecture	IR-4 Minor Crop Pest Management (2022)	Conducting herbicide, insecticide, and fungicide crop safety evaluations on numerous container-grown herbaceous perennials and annuals. The research plants and the agrichemicals to be evaluated were on the high priority list from IR-4 for research for 2022. Any visual toxicity will be observed throughout the evaluations. Dry weight and growth differences will be recorded at the end of the evaluations.
Minas,Ioannis	Horticulture + Landscape Architecture	Edible, Water Soluble Corn Zein Films for Shelf-life Extension and Improved Safety of Perishable Foods	Edible coatings present a sustainable supplemental/alternative to standard storage methods for fresh produce and have attracted increasing attention due to environmental considerations and consumption trends toward the use of convenience foods (e.g. fresh cuts).
Prenni,Jessica E	Horticulture + Landscape Architecture	Examination of the Bi-Directional Interactions between Phytocannabinoids and a Human-Associated Gut Microbiota	Evaluate the microbial membership, metabolic capabilities, and intestinal health in response to major and minor cannabinoids using a translational mouse model colonized with human microbiota.
Uchanski,Mark E	Horticulture + Landscape Architecture	Expanding the Colorado Agrivoltaics Testing Grounds Demonstration and Research Site	Expanding the Colorado Agrivoltaics Testing Grounds Demonstration and Research Site
LeTemplio,Sara	Human Dimensions of Natural Resources	Understanding Stress Recovery and Barriers to Access of Outdoor Immersion within LGBTQ+ Populations	Understanding Stress Recovery and Barriers to Access of Outdoor Immersion within LGBTQ+ Populations
Bright,Alan D	Human Dimensions of Natural Resources	Human Dimensions of Feral Swine Disease, Management, and Governance	Scientists will examine feral swine-related disease risks associated with feral swine market chains, and the effectiveness of state policies and laws to curb transport and release of feral swine.
Correia,Joel	Human Dimensions of Natural Resources	DISES: Resilient Socio-Environmental Systems: Indigenous Territories in the Face of Change	Supports basic social science research about Indigenous territorial management associated effects on biocultural diversity conservation in the context of varying external pressures driven by logging, agriculture, and hydrocarbon extraction in the Ecuadorian Amazon.
Jacobsen,Jaime L	Journalism + Media Communication	STAR Soil Health Program - Colorado State University Center for Science Communications (CSU CSC)	Compile a soil health inventory that includes soil moisture data and produce regionally relevant production and climate-specific SHMS templates for future adopting producers in the grant project.
Berry,Christopher	Marketing	On Premise Signals to Lower Consumers' Carbon Footprint	On Premise Signals to Lower Consumers' Carbon Footprint
Achter,Jeffrey D	Mathematics	Arithmetic Statistics and Intermediate Jacobians	Techniques from the Langlands program in general, and beyond endoscopy in particular, to understand regularities and variations in the sizes of isogeny classes of abelian varieties over finite fields. This foundational research creates knowledge that can later be applied to a wide range of fields, some of which may contribute to sustainability efforts related to the design of more efficient renewable energy systems, such as optimizing the placement of wind turbines or solar panels, more accurate and powerful models that inform climate change policy, manage resources like water and waste more efficiently within cities and agricultural systems.
Bangerth,Wolfgang	Mathematics	Collaborative Research: Development and Application of a Framework for Integrated Geodynamic Earth Models	This proposal develops the capabilities for realistic, whole-Earth computer simulations of motion over geologic time scales. The open source software developed herein will run on supercomputer facilities and incorporate many data sets the describe the Earth's current state.
Bandhauer,Todd M	Mechanical Engineering	Toward Justice-Centered Carbon Management in Nevada	Toward Justice-Centered Carbon Management in Nevada
Borch,Thomas	Mechanical Engineering	Structural Fires at the Wildland Urban Interface: Emission Factors, Inventories, and Implications	Structural Fires at the Wildland Urban Interface: Emission Factors, Inventories, and Implications
Jathar,Shantanu	Mechanical Engineering	Understanding the Emerging Contribution of Volatile Chemical Products and Food Cooking to Air Quality, the Aerosol Size Distribution, and Climate-Relevant Properties Over Urban to Regional Scales	Understanding the contribution of volatile chemical products and cooking emissions to air quality and new particle formation and growth in urban environments.
Radford,Donald W	Mechanical Engineering	Additive Manufacture of Fiber Reinforced Composites for Novel Internal Wind Blade Structure with Radically Reduced Tooling Requirements	Additive Manufacture of Fiber Reinforced Composites for Novel Internal Wind Blade Structure with Radically Reduced Tooling Requirements.
Sampath,Walajabad S	Mechanical Engineering	Student Design Supplement: IUCRU Phase III Colorado State University: Center for a Solar Powered Future	Student Design Supplement: IUCRC Phase III Colorado State University: Center for a Solar Powered Future
Volckens,John	Mechanical Engineering	Supplement - Sustainable Household Energy Adoption in Rwanda (SHEAR): Promoting Rural Health with Solar and Natural Gas	Sustainable Household Energy Adoption in Rwanda (SHEAR): Promoting Rural Health with Solar and Natural Gas.
Windom,Bret Colin	Mechanical Engineering	Testing of Liquid-Fueled Gas Turbine with High EGR Fraction to Support Carbon Capture System Integration	Testing of Liquid-Fueled Gas Turbine with High EGR Fraction to Support Carbon Capture System Integration

Rosenbluth, Ivan Official	Microbiology, Immunology + Pathology	Adaptation of M. abscessus to the LF Lung	Analyze the effect of mutations in the two-component regulatory loop, mprA-mprB, while investing on the emergence ultimately Mabs in cops, cystic and additionally
Ray, Gregory David	Microbiology, Immunology + Pathology	Antimicrobial Peptides: Biology, Therapeutics as Drugs, as Immunomodulators, and Beyond Molecular Approaches	Ray's research has a broad focus on the biology of antimicrobial peptides (AMPs). Ideology he, among tools to his, antimicrobial and immunomodulatory activities. Interactions at the host-microbe and microbe-microbe levels.
Kelley, Matthew	Microbiology, Immunology + Pathology	Study of cellular and molecular physiology and Biochemistry of Gram-positive bacteria	The Kelley lab studies cellular and molecular physiology and biochemistry of Gram-positive bacteria.
Rosso, Rachael A	Natural Resource Ecology Laboratory	Interactions Between Hydrology, Hydraulics and Water Quality in the Yaka Forestry Waterways	Modeling of the impacts of land management and climate change on water quality in the Yaka Forestry Waterways. Hydrology, hydraulics, and water quality modeling. Ecological regressions analysis before the development assignment of the watershed with natural conservation methods.
Ferrenberg, Scott	Natural Resource Ecology Laboratory	Wildfire and the Rocky Mountains of Imperial: Ecology of Fires and Wild Species	The funding opportunity is for conduct research on the ecology of fire-tolerant species in the Rocky Mountains of Imperial. Ecology of fires and wild species in the United States national forest. Species on fire's adaptations, as well as forest data collection during the summer time, permanent plots, the Front Country - Roadless (US Forest Service) and Rocky Mountain National Park. Ecology of fires and wild species. Ecology of fires and wild species in the United States national forest. Species on fire's adaptations, as well as forest data collection during the summer time, permanent plots, the Front Country - Roadless (US Forest Service) and Rocky Mountain National Park.
Kobgaldie, Paul P	Natural Resource Ecology Laboratory	Mapping and Measuring Changes Following the Alaska Fire	Using satellite remote sensing to map and monitor fire-size changes in Alaska from the 1984 to the... [illegible]
Kou, Wei	Natural Resource Ecology Laboratory	Improving Agricultural Nutrient Use and Nutrient Management in Tundra Food and Energy Crops Production in the Arctic Belt	Our project will develop a robust decision support system for agricultural nutrient use and nutrient management in the Arctic Belt to improve crop yield and energy crop production and nutrient flow. The ADMIN layers of the Arctic Belt has 5 cold ecological Bioreg. contributes to the same Bio-hydrothermal soil environment. Arctic Belt has 5 cold ecological Bioreg. contributes to the same Bio-hydrothermal soil environment. Wet areas (i.e. wetlands, shorelines) have been lost to the expansion...
Kuzyakina, Julia A	Natural Resource Ecology Laboratory	CESU-ERC Investigating White Sided Planting Immediately Following Fire in Boreal Forests	Continued analysis of postings preparations, habitat, and range.
Kwiecinski, Lorenzo Ralph	Natural Resource Ecology Laboratory	Leveraging the Microbes of Earth's Extreme Environments to Sustainably Source Novel Enzymes for Industry	Identify microbes colonize the host mucosal glycan/gut mode in cows diet. Leveraging the microbes of Earth's extreme environments to sustainably source novel enzymes for industry Arctic and other harsh environments (i.e. polar, extreme heat) Search cover microbes, capable of thriving using cows' digestive and the space. Leveraging the microbes of Earth's extreme environments to sustainably source novel enzymes for industry Arctic and other harsh environments (i.e. polar, extreme heat) Search cover microbes, capable of thriving using cows' digestive and the space.
Oldfield, Katherine Terrington	Natural Resource Ecology Laboratory	CESU-CP 12345 Regional Models to Estimate Nitrous Oxide Reduction Potential in Soils	Current Regional Models to Estimate Nitrous Oxide Reduction Potential in Soils in the Arctic
Peng, Sarah B	Natural Resource Ecology Laboratory	Arctic ERC Ecology, Carbon Storage, and Resource Use Mandy Berry	Research on arctic tundra ecosystems and ecology of local farmers and farms in the Arctic.
Reynolds, Gregory J	Natural Resource Ecology Laboratory	CNH: Wild Ecosystem CHIP: Sustainability Risk - Uncertainty Nexus	Wants what a more differentiated ground state, information, and knowledge needed for sustainability, resilience, and opportunities capacity.
Ryan, Stephen M	Natural Resource Ecology Laboratory	Agricultural Greenhouse Gas Inventory	Improving GHG emissions inventories, and developing costly, scale-oriented mitigation options for agricultural systems in the U.S. Arctic. Improving GHG emissions inventories, and developing costly, scale-oriented mitigation options for agricultural systems in the U.S. Arctic. Further improve GHG/N crop type, soil water, soil carbon, and manure/soil GHG emissions estimations, at both field, watershed and...
Rykiel, William J	Natural Resource Ecology Laboratory	Green Anvil: Decision Support in Enhanced Ecosystem Services in Bangladesh	Green Anvil: Decision Support in Enhanced Ecosystem Services in Bangladesh for carbon sequestration and ecosystem services. Green Anvil: Decision Support in Enhanced Ecosystem Services in Bangladesh for carbon sequestration and ecosystem services.
Stigliani, Lindy	Natural Resource Ecology Laboratory	CESU-ERC Advanced Geospatial/Area Methods in Invasion Ecology	Investigating the spatial patterns of invasive species in the Arctic. Developing a model that can predict the distribution of invasive species in the Arctic. Developing a model that can predict the distribution of invasive species in the Arctic. The model will be used to improve assessments of risk, targeting early detection efforts, and understanding the factors... and other decisions surrounding how management of invasive species affects the...
Strauss, Jeffrey David	Natural Resource Ecology Laboratory	Arctic Rim Perspectives (Circles, and Mapping) and Management Data in the Boreal Ecosystem	Understand the perspectives and priorities of the arctic rim/polar/region around the boreal ecosystem. Arctic rim/polar/region around the boreal ecosystem. Arctic rim/polar/region around the boreal ecosystem.
Zhang, Yu L	Natural Resource Ecology Laboratory	Forest Carbon Cloud Front Satellite - A Remote Approach to Evaluate Forests for the Arctic Alaska Rim	Developing the PREPA Project ecosystem model, and providing support for... [illegible] for the Arctic rim, the Alaska, and portions of the Arctic.
Bailey, Lucas Alida	Ecosystem Science	Social Perception for Investment in Community-Level Group Size Structure in Wolves and Wolves Populations	proposed project will target the social, dynamic effectiveness, and management/conservation of wolves in the Arctic rim/Alaska/Canada regions.
Ellis, Joshua Russell	Physics	Particle Astrophysics and Cosmology, The Higher Arctic	Particle astrophysics and cosmology, the higher Arctic.
Mcmillan, Rory	Political Science	The Psychological Bureaucracy of Welcome Neglect in Fifty Nations	Using the bureaucracy and welcome ecology as the lens, explore of Alaska and Canada's Arctic rim/Alaska/Canada regions. Using the bureaucracy and welcome ecology as the lens, explore of Alaska and Canada's Arctic rim/Alaska/Canada regions. Using the bureaucracy and welcome ecology as the lens, explore of Alaska and Canada's Arctic rim/Alaska/Canada regions.
Gutierrez, Lorena A	Psychology	Agro-Arctic Study: Family Among Emergency Preparedness (Ag-A-T-A?): Arctic Community Collective Kind / Right Place Collective Action Home for Agro-culture Health and Family Values	Observe town- and rim-level research related to human health and safety in agriculture, and forestry within Yakima Region/rim.
Kozak, Samuel W	Terrace Valley Research Center	Nitrogen Fertilizer Management for Reduced Nitrogen Use Efficiency and Increased Crop Productivity in Nebraska Terrace Valley	Observe nitrogen fertilizer management strategies to improve nitrogen use efficiency and yield in arid/alkaline soil/terrain regarding, affecting poorer, lower yield Nebraska Terrace Valley.
Longo, Julia	School of Education	Thriving Until Age 1: A Mental Study on Caregiver Early Wellness, Parent Stress, and Infant Health in Yakima	Wellness Study of Infant by Students - Arizona Institute.
Brown, Samantha M	School of Social Work	The Condition Living Fully/Violence and Infant Fourth and Development of the Prefrontal Period	Family violence, which includes infant who ye their children (IPV) and child maltreatment (CM), is a major public health problem that can have lasting effects. Early exposure to violence and child maltreatment can have a profound impact on the developing brain, and it can also increase the risk of mental health problems and substance abuse later in life. This study will examine the relationship between violence and child maltreatment and the development of the prefrontal cortex (PFC) and the hippocampus in infants. The PFC is responsible for executive functions such as planning, decision-making, and impulse control, while the hippocampus is involved in learning and memory. By studying infants who have been exposed to violence and child maltreatment, we can better understand how these experiences affect the development of the PFC and the hippocampus. This knowledge can help us to develop interventions that can support these children and their families.
Kandan, Ellen Kuzuhi	Sociology	Re-aging: a grounded multisite ethnography Frame on School Accreditations	The project will involve a program that will document how capacity-building in school-level accreditation processes can be flexible, provides a learning cycle for communities planning a number of future. It can have a relational problems, and develop research-based tools that can be used by school communities/districts. Working form to re-shape [illegible] strategies.
Jenkins, Allen A	Soil + Crop Sciences	Cultivate Expansion Core Assessment of Ethanolic Crop Production in Nebraska	Observing sufficient data, to develop crop [illegible] which can be used to...
Rosso, Steven	Soil + Crop Sciences	Precision Land Agriculture Research Program	Quantifying interactions between soil physical [illegible] and crop health, soil system [illegible].
Ruhan, Jeremy Joseph	Soil + Crop Sciences	Low-Cost Soil Technology for Small-Holder Quality Improvement with Traditional Methods	Soil is key to the progress of Black Revolution Farmers (BRFs) has proved [illegible] to be a major constraint to crop production. Soil acidity, low soil [illegible] nitrogen and phosphorus can all be [illegible] but amendments to soil are [illegible]. Leading to BRFs facility Issues.
Cassidy, Nicky Francesca	Soil + Crop Sciences	Rotation, Management, and Processing: An Investigation in Progressive and Innovate Soil Practices and Soil Science	Lead the soil carbon and Health Initiative of the cereal project around on the soils systems and management, environment. We cultivate cereal there now. Research on the soil, environment, study.
Foley, Steven Cole	Soil + Crop Sciences	Groundwater Soil Health Assessment - Augmenting Soils Resource, Awareness, and Input Re-Building Across the Arctic Circle Farmers	Soil Health Data Project proposal - supporting soils research, awareness, and input re-building across the Arctic Circle Farmers.
Gilfillan, Lauren	Soil + Crop Sciences	CAREA for This: Microclimate Science Network	Understand the implications of angry since land and crop studies shown cultivars.
Mcclintock, Regan B	Soil + Crop Sciences	NSM Certified EHS Program	Instruction and enthusiasm) that includes soil science data and practical [illegible] research projects. Soil Science data (SSURGO) [illegible] for Arctic.
Rosso, Richard Glenn	Soil + Crop Sciences	FARMSENSE - Site-wide Research and Rewarding for Gain Quality and Yield	The primary outcomes from the proposed project to set a data and networking of grain quality in Arctic, and a broader objective is increasing of time for... aim to produce a more grain Arctic. Integrity to Fusion the vision of farmer. Arctic Belt has 5 cold ecological Bioreg. contributes to the same Bio-hydrothermal soil environment. Arctic Belt has 5 cold ecological Bioreg. contributes to the same Bio-hydrothermal soil environment. Wet areas (i.e. wetlands, shorelines) have been lost to the expansion...
Wesley, Geoffrey Preston	Soil + Crop Sciences	Genetic Mechanism to Improve Nutrient Use Efficiency in Crop Plants Under Abiotic Stress	Genetic mechanism to improve nutrient use efficiency in crop plants under abiotic stress.
Pravecek, Mark W	Soil + Crop Sciences	Advancing the Effectiveness of Soil Health Practices in Enhancing Soil Organic Carbon in the Upland	Collecting new data on long-term agricultural practices as well as some Cover... In Arizona, the no-tillage/no-till quantification rates, advantages with tobacco and other agronomic and other natural ecosystems under the practices. Arctic Belt has 5 cold ecological Bioreg. contributes to the same Bio-hydrothermal soil environment (e.g., crop rotations, farm organizations, no-till, agricultural).
Shaw, Joseph Chris	Soil + Crop Sciences	Enhancing Aquabilities of USARS Alumni	Rigorous and improve the USARS' the most Global Food Data services published and USDA... a the based on USARS for 2012. Continuing partner protection from aggression impacts of comparable practice and other ag-cultural on farm, and governance and environmental conservation of the ag.
Sherrod, Lindsey Anne	Soil + Crop Sciences	Soil Health and Agricultural Sustainability	Soil Health and Agricultural Sustainability.
Schipanski, Meagan Elle	Soil + Crop Sciences	NSM Investing Soil and Environmental Effects on Crop Species and Landscapes with Implications Under Abiotic Limitation	addressing the time-interest of agricultural cover limitations in the semi-arid Great Plains.
Stanley, Erik R	Soil + Crop Sciences	Conservation Effects Assessment Project - Intensive Site Evaluations	Monitoring, evaluating treatment to examine the influence of cover crops, farm, tillage, and nutrient management practices (CEAPs) on water quality in agricultural watersheds. Monitoring, evaluating treatment to examine the influence of cover crops, farm, tillage, and nutrient management practices (CEAPs) on water quality in agricultural watersheds. Monitoring, evaluating treatment to examine the influence of cover crops, farm, tillage, and nutrient management practices (CEAPs) on water quality in agricultural watersheds.
Wallis, Richard James	Soil + Crop Sciences	Surveying the Jetting Microbial Metabolic Contributors for Soil Carbon Cycling Under Abiotic Limitation	Surveying the Jetting Microbial Metabolic Contributors for Soil Carbon Cycling Under Abiotic Limitation. Surveying the Jetting Microbial Metabolic Contributors for Soil Carbon Cycling Under Abiotic Limitation.
Swan, Dawson	Statistics	Improved Drought Stress Simulations in DSSAT/Crop-Environment Resource Synthesis (Desis) Model	The objectives of this project is to improve the physics and semantics within our ag-ecosystem model DSSAT by supplying and evaluating an improved version of the [illegible] algorithm. Improved Drought Stress Simulations in DSSAT/Crop-Environment Resource Synthesis (Desis) Model.
Kirby, Benjamin Andrew	Statistics	SHINE Collaborative: Understanding the Solar Drivers of Arctic Rim Hydroclimate Extremes	Develop statistical models for understanding the solar drivers of the Arctic rim's hydroclimate extremes (droughts, Sea Island floods, wildfires, and coastal storm) regions.
Wang, Xiaofeng	Statistics	Computation Research in Ecological Statistics	Develop new, and/or appropriately implement existing, statistical methods for analyzing ecological data. Develop new, and/or appropriately implement existing, statistical methods for analyzing ecological data. Develop new, and/or appropriately implement existing, statistical methods for analyzing ecological data.
Wilson, Thomas Lee Jesse	Statistics	Jessica Lee Thaleia n, Shaw Ben , and Tina Jones Benjamin (Affiliate)	Jessica Lee Thaleia n, Shaw Ben , and Tina Jones Benjamin (Affiliate).
Bradley, Thomas Affenfeld	Systems Engineering	Agent-Based, Robotics-Ag-Tech-Bot , and Heavy-Duty Electric Vehicle Economics, Energy, and Policy Analysis	Agent-Based, Robotics-Ag-Tech-Bot , and Heavy-Duty Electric Vehicle Economics, Energy, and Policy Analysis.
Cheney, Steven Allen	Systems Engineering	Surveying the Jetting Microbial Metabolic Contributors for Soil Carbon Cycling Under Abiotic Limitation	Surveying the Jetting Microbial Metabolic Contributors for Soil Carbon Cycling Under Abiotic Limitation. Surveying the Jetting Microbial Metabolic Contributors for Soil Carbon Cycling Under Abiotic Limitation.
Duran, Daniel Ramon	Systems Engineering	Smart Energy and Energy Intelligence Laboratory (SEEL) to Enhance Power Instrument in Design of Floating Offshore Wind Energy Systems	Monitoring, and integrating the so-called SEEL, of Ocean in Boulder to the Arctic rim/Alaska/Canada regions. Monitoring, and integrating the so-called SEEL, of Ocean in Boulder to the Arctic rim/Alaska/Canada regions.
Ryan, Xiaofeng	Transformative Forecasting + Teaching	Research Centrally Examining Community Indices to Support Learning of Youth Ultimate Research Partners	Develop community, learning, culture to support attainment of educationally relevant learning.
Rosenthal, Julie Jean	VPTA Lolly Affairs	HUMBER: From the Forest to the Rescue - Exploring Forest Land Ecosystem Services and Human Well-Being in the Arctic Rim	Planning measures act of PEPA as a proceedings, researcher science for... [illegible] Planning measures act of PEPA as a proceedings, researcher science for... [illegible] Planning measures act of PEPA as a proceedings, researcher science for... [illegible]
Shipley, Cassandra	VPResearch	NSF Eng Sees: Colorado - Wyoming Water as Resilience Engine	Our Engine will harness the power of the region's electric-connect industry, environment, the human-water relationship, Denver-Boulder, and Colorado's Front Range to [illegible]. Our Engine will harness the power of the region's electric-connect industry, environment, the human-water relationship, Denver-Boulder, and Colorado's Front Range to [illegible].
Rosenwinkel, Brittney Rae	Western Colorado Research Center	Improving Nitrogen Use Efficiency and Water Use Efficiency under Limited Water Conditions for Sustainability in Intensive Rice	Investigate the dynamics of potential soil erosion, a third-part designed, biological sensitivity, during the one-hundred period of water crops in rigs to value of the

PERSON_FUL	LEAD_UNIT_N	PROJ_TTL_DE	SUSTAINABLE
Bayham,Jude	Agricultural +	Cost Drivers, I	Wildfire Risk Management Science (WRMS) Team applies
Bonanno,Ales	Agricultural +	Causes and C	Analysis of persistency of food insecurity among minoriti
Burkhardt,Jes	Agricultural +	CESU-RM: No	CSU's Department of Agricultural and Resource Econom
DeLay,Nathar	Agricultural +	Innovative Tec	Reduce GHG emissions through climate-smart and regen
Jablonski,Reb	Agricultural +	CSA: Capturir	New York City spends >$500M annually on food, and the
Koontz,Steph	Agricultural +	Smart Foodsc	Smart Foodscapes to enhance the sustainability of West
Magnan,Nich	Agricultural +	Packaging an	Modify the power supply from standard electric grid to so
Mooney,Dani	Agricultural +	Assessing the	The Colorado River Basin currently stands amidst unprec
Ritten,John P	Agricultural +	Ecosystem Se	Analysis of trade-offs of Ecosystem Services
Suter,Jordan	Agricultural +	Inland Floodir	Understanding behavioral responses to flooding and eva
Borowiec,Mar	Agricultural Bi	FACT-AI: Harn	Develop AI-based Decision Support System (DSS) for pes
Brown,Cynthi	Agricultural Bi	Impacts of Re	Invasive annual grasses (IAG) pose an ecological threat.
Hufbauer,Rut	Agricultural Bi	CESU-RM Unc	To start to disentangle the food-web connections and un
Roberts,Roby	Agricultural Bi	Plant Patholo	To support the wheat plant pathology research and exten
Roman-Muniz	Agricultural Bi	Detecting and	Conduct surveillance and characterize Japanese beetle i
Stewart,Jane	Agricultural Bi	Developing Tc	Develop tools to detect rust pathogens that cause signifi
Trivedi,Panka	Agricultural Bi	Providing Prac	1. Perform multi-omics analyses of soil, rhizosphere, and
Davis,Jessica	Agricultural E	Improving Env	1) Measure water use by peas, lentils, cowpeas, wheat, n
Goldhamer,D	Agricultural E	Colorado STA	Colorado STAR Program: Statewide Expansion and Regio
Thoma,Grego	Agricultural E	Climate Smar	Research Climate Smart Grasslands as the Root of Agric
Carvalho,Ped	Animal Scienc	Assessing the	Assessing the impact of production technologies on sust
Dillon,Jasmin	Animal Scienc	Environmenta	Compare the cradle-to-processing gate environmental fo
Engle,Terry E	Animal Scienc	A Bromoform	Generate public knowledge about the safety of a bromof
Manriquez Al	Animal Scienc	Afrin Jannat: E	Enhance indoor air quality of dairy operations by determi
Stackhouse-L	Animal Scienc	Coupling Tech	Rangeland research and educational outreach objectives
Hausermann,	Anthropology	DISES: Investi	Investigate environmental risk posed by one contaminan
Henry,Edwarc	Anthropology	CESU-RM: Us	Work with contemporary Indigenous nations to refocus th
Sibold,Jason S	Anthropology	Spruce Beetle	Perform monitoring, analysis, and interpretation of result
Davidson,Jeff	Arkansas Vall	Using Cowpe	Planting cover crops is a common agricultural practice in
Anderson,Cha	Atmospheric S	AI Institute: Ar	AI Institute: Artificial Intelligence for Environmental Scier
Barnes,Elizab	Atmospheric S	Explainable A	Explore the use of XAI for utilizing climate model output f
Chiu,Jui-Yuan	Atmospheric S	Assessing the	Marine boundary layer (MBL) clouds are at the heart of th
Collett Jr,Jeffr	Atmospheric S	Effects of Exc	Routine monitoring efforts and focused air quality studies
Creamean,Jes	Atmospheric S	Collaborative	Deploy a suite of instruments at Palmer Station, Antarcti
Dolan Cabell,	Atmospheric S	Collaborative	Measure snow sensitivity to clouds in a mountain enviror
Ebert-Uphoff,	Atmospheric S	AI Institute: Ar	AI Institute: Artificial Intelligence for Environmental Scier
Fischer,Emily	Atmospheric S	Enhancing Mc	Monitoring of air toxins and air quality education in under
Maloney,Eric	Atmospheric S	Latent Heat Fl	The proposed work will continue our investigations using
Perkins,Russe	Atmospheric S	Comprehensi	Improve the representation of aerosol-cloud interactions
Rasmussen,K	Atmospheric S	Investigation (	Investigation of Clouds, Aerosols, Vertical Motion, and C

Schumacher,	Atmospheric S	Collaborative	Extreme precipitation, and the flash flooding it often caus
Silvers,Levi G	Atmospheric S	Collaborative	atmospheric modeling, climate
Sun,Lantao	Atmospheric S	Collaborative	Understanding the links between Tropical Cyclones and T
Thompson,Da	Atmospheric S	Using CloudS	Two-day workshop to understand the role of clouds in Ext
Van Den Hee	Atmospheric S	Process-Level	Understanding process-level advancements of climate th
Venkatachala	Atmospheric S	CIF: A Sea-Go	The intent of the Community Instruments and Facilities (
Vonderhaar,T	Atmospheric S	Libera Scienc	Libera is planned to fly on-board the NASA/National Ocea
Santangelo,Th	Biochemistry	22-EXO22-00	By detailing the evolution & activity of information proces
Chen,Anping	Biology	Enhancing Dr	Using soil moisture as a measure of agroecosystem drou
Funk,William	Biology	Evaluating the	To assess the response of newly introduced populations
Garrity,Debor	Biology	Functional En	We will enhance the production of purified water derived
Gonzalez Sar	Biology	Assessment o	Assess the efficacy of restoration projects conducted in v
Hoke,Kim	Biology	Participant Su	Examines the role of neural mechanisms in mate selecti
Knapp,Alan K	Biology	LTER: Manipu	We will study the long-term ecological dynamics of tallgr
Poff,Nathan L	Biology	CESU-RM: Re	Cooperate with the USGS to assess the efficacy of differe
Ruegg,Kristen	Biology	Quantifying th	The BGP is partnering with the Alaska Department of Fish
Smith,Melind	Biology	LTER: Manipu	Study the long-term dynamics of tallgrass prairie at the K
von Fischer,Jo	Biology	CSU Methane	Colorado State University will support EDF's work in the t
Williams,Cory	Biology	Using Acceler	Study food limitation in proximity to major rookeries to ur
Bosco-Lauth,A	Biomedical Sc	Discussion wi	CSU will host a group of experts in feral swine disease an
Carnevale,Ela	Biomedical Sc	Effects of Sho	Provide novel insight into the extent that different dietary
Herron,Christ	CEMML	Next Generati	Provide support and other services in Guam for establish
Jones,David S	CEMML	Arthropod and	Sample insect and soil biodiversity within the diverse ecc
Wallander,An	CEMML	Sitka NHP His	Produce a Historic Resource Study for Sitka, which will in
Tegen,Suzanr	Center for the	Advance Clim	TNC Advance Climate Solutions. CNEE will continue to u
Reardon,Kenr	Chemical + Bi	2654-1515: A	Algal Turf Scubbers: Improving Carbon Utilization and Pro
Bandar,Jeffrey	Chemistry	New Synthetic	Provide chemists with new synthetic capabilities that imp
Kim,Seonah	Chemistry	Gasoline Con	Perform density functional theory and thermodynamic pr
Miyake,Garret	Chemistry	Organic Photc	Aims to eliminate the contamination and sustainability c
Olivo-Delgado	Chemistry	Supporting En	CSU PI Carlos Olivo-Delgado will facilitate and documen
Apke,Jason	CIRA	Dense Optica	Atmospheric research and air quality
Atrash,Dmitri	CIRA	Task 1: CIRA F	CIRA Research and Development for Bipartisan Infrastru
Baker,David F	CIRA	Reconciling GOSAT, OCO-2, and OCO-3 Data to Estimate Robust Annu	
Baker,Ian T	CIRA	Assessing Dri	Improve our understanding of both the trend and variabil
Brammer,Alar	CIRA	Investigating t	tropical cyclone research
Chirokova,Ga	CIRA	Transition of C	Transition of CIRA Tropical Cyclone Satellite Products to
Crockett,John	CIRA	CIRA Researc	CIRA Research Collaborations with the NWS Meteorologi
Dash,Prasanji	CIRA	NEAT - CIRA S	CIRA Support to NESDIS Environmental Applications Tea
Hand,Jennifer	CIRA	CESU-RM: As	This work involves the development of the science and in
Haynes,Kathe	CIRA	CIRA/NESDIS	Improved data collection for Tropical Cyclone research to
Hilburn,Kyle	CIRA	Weather-Dep	Weather-Dependent Probabilistic Forecasting of Wildfire

Hurrell,James	CIRA	Dynamical Dc	Stratospheric sulfate aersol injection (SAI), solar climate
Lin,Haidao	CIRA	Task 1: Disast	Assimilation of Aerosol Optical Depth (AOD) Smoke and
Lin,Liao-Fan	CIRA	Task 1: IIJA: C	CIRA Research of/for Bipartisan Infrastructure Law: Refir
Liston,Glen E	CIRA	Documenting	Proposed development of a User's Guide, Installation Gu
Lu,Lixin	CIRA	Integrating an	UFS drought forecast
McGinnis,Ian	CIRA	CIRA Researc	CIRA Research and Development for Bipartisan Infrastru
Mcgraw,Marie	CIRA	CIRA/NESDIS	Climate Information Partnership Development and Resp
Miller,Steven	CIRA	Cooperative I	Research in the atmosphere
Noh,Yoo-Jeon	CIRA	CIRA/NESDIS	Atmospheric research
Pedersen,Stir	CIRA	The Future of	A synthesis that adds interactions among Snow, Vegetati
Pollack,Ilana	CIRA	Ammonia for /	Program to deploy an instrument to collect new observat
Riley Dellaripa	CIRA	Process-Orier	Process-Oriented Evaluation of Oceanic Equatorial Wave
Rutledge,Stev	CIRA	COLMA CIRA	Research and Development for GOES-R Risk Reduction f
Schneider,Jor	CIRA	CIRA Researc	CIRA Research and Development for Bipartisan Infrastru
Schuh,Andrev	CIRA	Using a Novel	Using a Novel Multiscale GCM to Characterize the Brazili
Seaman,Curti	CIRA	Geo SLIDER -	Atmospheric research
Strong,Bonny	CIRA	CIRA Researc	Short Range Fire Weather Research
Sullivan,Amy	CIRA	Near Real-Tim	Interactions of urban and marine emissions and chemist
Terborg,Amar	CIRA	Research Coll	Aviation Weather Testbed and the Aviation Weather Res
Trogdon,Taylc	CIRA	CIRA Researc	CIRA Research and Development for Bipartisan Infrastru
Uden,Dana M	CIRA	CIRA Researc	Fire observations research
Were,Valerie	CIRA	Collaboration	Collaboration between CIRA and OSTI in the Social, Beha
Alves Meira N	Civil + Environ	Developing Ec	Developing Ecophysiological Components for Post-Fire H
Arabi,Mazdak	Civil + Environ	Polaris Land U	Integrated Land Use Planning and Water Management in
Bailey,Ryan T	Civil + Environ	Parameterizat	Parameterization and Testing of New Groundwater Flow a
Carter,Ellison	Civil + Environ	Citizen-Scien	Citizen-Science Technology for Healthy Living at Home
Chavez,Jose L	Civil + Environ	Using Remote	Using Remote Sensing Data to Highlight Salinization Patt
David,Olaf	Civil + Environ	SWAT-C Base	SWAT-C based Soil Carbon Modeling Service for Nutrient
Gates,Timoth	Civil + Environ	South Platte F	Colorado South Platte River Basin Salinity Characterizati
Guo,Yanlin	Civil + Environ	CAREER: Enh	Enhancing hurricane resistance of building envelopes un
Morrison,Ryar	Civil + Environ	SRS RN: Trans	Transforming Rural-Urban Systems: Trajectories for Sust
Nelson,Peter	Civil + Environ	Geomorpholo	Geomorphology and hydraulic impacts of post-fire in-stre
Niemann,Jeffr	Civil + Environ	CPS: Medium	Ensuring that yields and productivity of cropping systems
Pallickara,Sar	Civil + Environ	CPS: Medium	Ensuring that yields and productivity of cropping systems
Sharvelle,Syb	Civil + Environ	From Storms t	From Storms to Supply: A Framework to Integrate Stormv
Smith,Ryan G	Civil + Environ	Improving Rer	Improving remote sensing and machine learning-driven g
Thornton,Chri	Civil + Environ	Hydraulic-Mo	Hydraulic-Model Study of the Halligan Water Supply Outl
Venayagamoc	Civil + Environ	Dynamics and	Dynamics and modeling of small-scale nonlinear and nor
Wible,Tyler C	Civil + Environ	CESU-RM: Bil	Environmental Flow Decision Support Tool and Green Riv
Aguirre,A Alor	Clinical Scien	Reducing Sec	Reducing Security Risks from the Intersectionality of Wilc
Monnet,Eric	Clinical Scien	Utilization of I	Public health determination of the appropriate dosage ar

Wolfe,Barbar	Clinical Scien	Reducing Sec	Reducing Security Risks from the Intersectionality of Wild
Baldvins,Thor	Colorado Nati	CESU-RM: No	CNHP will map all known noxious weeds at the U.S. Air F
Davidson,Ana	Colorado Nati	Collaborative	This research aims to uncover how components of comp
Lambert,Brad	Colorado Nati	Arapaho-Roos	Study of Arapaho-Roosevelt National Forest Northern Leopard Frog
Lemly,Joanna	Colorado Nati	CESU-CP: BLI	The proposal is to support BLM Utah with aquatic monito
Menefee,Mich	Colorado Nati	Colorado Con	Develop a statewide conservation and recreation plan th
Schorr,Robert	Colorado Nati	Using Citizen	This project will assess recreational rock climbers' intere
Siemers,Jerer	Colorado Nati	CESU-CP: Me	This project will analyze bat acoustic data collected at M
Smith,Gabriel	Colorado Nati	Fen Mapping	Potential groundwater-fed wetlands will be identified fro
Smith,Jessica	Colorado Nati	Rare Plant an	Collect field data on fens, groundwater fed wetlands, in t
Bucholz,Etha	Colorado Stat	Remote Sensi	Remote Sensing of Forest Structural Heterogeneity- Fore
Cabot,Perry E	Colorado Wat	Evaluating Co	Evaluating Conserved Consumptive Use in the Upper Col
Schneekloth,J	Colorado Wat	Precision Farr	Provide a quantitative understanding of inputs in dryland
Tracy,John C	Colorado Wat	2023CO-Trac	Support the development of a well educated water workf
Dunn,Thomas	Communicati	The NCA Cau	Catalogue, index, and preserve historical documents fro
Keys,Patrick V	Computer Sci	Theme 3: Ag-F	AI-driven advances in mitigation through improved GHG,
Mueller,Natha	Computer Sci	Theme 3: Ag-F	AI-driven advances in mitigation through improved GHG,
Pallickara,Shi	Computer Sci	Participant Su	Urban sustainability, spatial temporal data, analytics, pro
Ray,Indrajit	Computer Sci	CyberSim: A F	Flexible Simulation Environment for the Evaluation of Cyb
Ray,Indrakshi	Computer Sci	Protecting Cyl	Distributed Energy Resources (DER) are small-scale ener
Sreedharan,S	Computer Sci	An AI Tutoring	Build an adaptable AI agent that will automatically detec
Goodrum,Pau	Construction	Improving Cor	Improving construction work performance and safety thr

Hooten,Mevin	Cooperative F	RWO123 Mod	Examing how landscape features affect population responses of brook trout to climate and how does climate interact with local conditions to generate spatial variability in trout population responses
Kendall,Willia	Cooperative F	A Comparisor	The causes of the historical decline in emperor goose abu
Winkelman,D	Cooperative F	Development	In addition to determining the acute thermal tolerance ra
Emerson,Etha	CSU Energy In	Controlled Re	Two-phase approach to test and refine Project Canary's r
Hodshire,Ann	CSU Energy In	Colorado Ong	This project aims to develop a measurement-based inver
Vaughn,Timot	CSU Energy In	SLR Puloli Sin	CSU will support SLR's proposal to perform an independe
Zimmerle,Dar	CSU Energy In	GTI Energy AC	Characterize emissions from tanks to improve the accura
Hill,Rebecca I	CSU Extensio	Colorado Agr/	Colorado AgrAbility Project (CAP) to increase the likeliho
John,Gilbert	CVMBS Colle	Multi-Track Pc	Post-baccalaureate research training to prepare underre
Tavener,Simo	Dean of Natur	CESU-RM: Im	Cooperatively engage in the improvement of the National
Li,Yan	Design + Merc	Cellulose Nar	Establish the proof of principle of a sustainable method c
Zahran,Samr	Economics	Research on t	Application of economic theory and applied econometric
Baudoin Faral	Ecosystem Sc	Pro-Agua 3: In	Support the implementation of sustainable development
Cusack,Danie	Ecosystem Sc	LTREB: How D	Assess the effects of decadal-scale chronic drying and in
Fassnacht,Ste	Ecosystem Sc	CESU-RM: Su	Ongoing Clean Water Act project with National Park Serv
Kampf,Stepha	Ecosystem Sc	Post-Fire Run	Examine how streams in burned forested watersheds are
O'Connell,Jes	Ecosystem Sc	A Regional As	Develops an open source remote sensing tool to evaluate
Ross,Matthew	Ecosystem Sc	Water Quality	Build a code base to make it easier and more intuitive for

Warnock,And	Education + C	Rediscovering	Work with CSU's STEM education students to develop a r
Chen,Haonan	Electrical + C	AI for Weathe	AI for Weather Informatics to inform forecasts and public
Jankowska,El	Electrical + C	Amorphous O	Amorphous oxide interference coatings for multi-gigasho
Pasricha,Sud	Electrical + C	DESC:Type I: S	Sustainable Serverless Computing
Pezeshki,Ali	Electrical + C	Learning to Pr	Learning to Prevail: Communication in Contested and Ad
Clark,Maggie	Environ + Rad	Effects of Earl	Follow-up of the HAPIN (Household Air Pollution Interven
Gries,Tara Ma	Environ + Rad	Omega-3 Fatt	This grant aims to identy how omega-3 fatty acids induce
Peel,Jennifer	Environ + Rad	Household Ai	Household Air Pollution Intervention Network (HAPIN) tri
Pennington,W	Environ + Rad	Outreach Cor	Develop new and creative research related to human hea
Rojas Rueda,I	Environ + Rad	Update Color	Developing the methods and code for the CO EnviroScre
Schaeffer,Jos	Environ + Rad	Air Pollutants,	To chacracterize environmental exposures (e.g., to partic
Slayden,Richa	Environ + Rad	Deciphering I	Examining how exposure to environmental neurotoxins a
Tjalkens,Rona	Environ + Rad	Nuclear Rece	Examine the role of the receptor, NR4A2/Nurr1, as a moc
Valley,Morgar	Environ + Rad	PE Core - Eme	Develop new and creative research related to human hea
Bailey,Larissa	Fish, Wildlife ·	CESU-RM: Eff	Address the gap in our ecological understanding and help
Berger,Joel	Fish, Wildlife ·	Impacts of Inc	Impacts of Increasing Noise on Desert Bighorn Sheep
Bestgen,Kevir	Fish, Wildlife ·	Colorado Scu	Improved understanding of morphological differences be
Crooks,Kevin	Fish, Wildlife ·	Non-Lethal To	Develop and evaluate new non-lethal tools for predator n
Goldstein,Lib	Fish, Wildlife ·	Assessing the	Assessing the Status, Distribution, Movement Corridors,
Horton,Kyle	Fish, Wildlife ·	Aeroecology,	Extend the use of NASA remote sensing products toward
Kanno,Yoichir	Fish, Wildlife ·	Ranking and V	Analyze existing brook trout and stream temperature data
Koons,David M	Fish, Wildlife ·	An Integrated	Enable sustainable management of White Winged Doves
Myrick,Christ	Fish, Wildlife ·	CESU-RM: Se	Factors that influence movement, population size, and p
Preston,Danie	Fish, Wildlife ·	Evaluating Eff	Quantify how wildfire has affected connections between
Stoner,Kathry	Fish, Wildlife ·	US-Israel Coll	Movement of People, Small Mammals, and Pathogens in
Wittemyer,Ge	Fish, Wildlife ·	Using Smartpl	Using Smartphone GPS Locations to Track Increased Visi
Gentile,Christ	Food Science	Stotz K01: Foc	Developing and evaluating innovative diabetes nutrition e
Davis,Thomas	Forest + Rang	CAREER: Is Ph	Is Phytohormone the Mechanism that Predisposes Droug
Baral,Srijana	Forest + Rang	Effectiveness	Examines the impact of tax incentives on conservation ea
Chambers,Ma	Forest + Rang	Adaptive Silvi	Colorado Forest Restoration Institute to complete pre-tre
Cheng,Anton	Forest + Rang	Collaborative	Monitoring and adaptive management for the Arapahoe-R
Cooper,David	Forest + Rang	Wetland and R	Work with the US Forest Service in Oregon to develop and
Courkamp,Ja	Forest + Rang	The Effects of	We will track the effects of herbicide treatments for invas
David-Chavez	Forest + Rang	Large-Scale C	This large-scale climate research hub will sustain regiona
Francis,Emily	Forest + Rang	CESU-RM: Co	Develop geospatial data products characterizing forest s
Hart,Sarah Ja	Forest + Rang	Understandin	Understanding the Effects of Hazardous Fuel Treatment I
Havrilla,Carol	Forest + Rang	Coupling Bioc	Modeling spatial organization of biocrust and plant comn
Hoffman,Cha	Forest + Rang	Object-Based	Project links multiple technologies together to better unc
Mola,John	Forest + Rang	CESU-RM: Un	Bumble bee overwintering study
Ocheltree,Tro	Forest + Rang	Understandin	Understand the impact to forage quality and quantity tha
Schultz,Court	Forest + Rang	Phase 2 Quan	Understanding the use of Forest Service research produc

Shaw,Jeremy	Forest + Rang	Assessing the	Assessing the sensitivity of Colorado's mountain wetland
Stevens-Rum	Forest + Rang	Empirical Ass	Evaluating treatment effectiveness in the face of wildfire
Wei,Yu	Forest + Rang	Develop a Sof	Develop a Software Tool to Support Efficient National Forest Service Planning
Wolk,Brett H	Forest + Rang	Geospatial In	The Colorado Forest Restoration Institute will implement
McGrath,Dan	Geosciences	CESU-RM: Re	The result of this work will be an unprecedented dataset,
Ronayne,Mich	Geosciences	Dye Tracing a	Geohydrologic assessment to investigate water sources
Rugenstein,Je	Geosciences	Quantify the F	Collect precipitation and groundwater isotopes from the
Sanford,Willia	Geosciences	CESU-RM: NP	Collect, compile, and develop a database for existing and
Schutt,Derek	Geosciences	Collaborative	Develops the capabilities for realistic, whole-Earth comp
Wohl,Ellen E	Geosciences	The Role of La	Survey logjams in three field sites in Colorado, Iowa, and
Lipsey,Tiffany	Health + Exer	Wildland Fire	CSU will act as data collection site for study on Wildland
Orsi,Jared P	History	CESU-RM: De	Transcribe existing oral histories for Death Valley Nationa

Payne,Sarah F	History	Sitka NHP Historic Resources Study	The project will produce a Historic Resource Study for Sitka which will include primary source research to produce historic contexts and fieldwork to identify cultural resources associated with historic contexts.
Bauerle,Willia	Horticulture +	Developing Ca	Quantify water and nutrient use for Cannabis and commu
Bousselot,Jen	Horticulture +	Exploring Regi	Evaluate regionally-sourced growing media for use in pea
Burcham,Dan	Horticulture +	Colorado Coll	Colorado collaborative exchange for tree monitoring and

			Develop mitigation strategies for common diseases and physiological disorders on emerging crops which limit their adoption for controlled-environment production.
Craver,Joshua	Horticulture +	Tailoring Hydr	
Gu,Mengmen	Horticulture +	IR-4 Minor Cro	Conducting herbicide, insecticide, and fungicide crop sa
Klett,James E	Horticulture +	IR-4 Minor Cro	Conducting herbicide, insecticide, and fungicide crop sa
Minas,Ioannis	Horticulture +	Edible, Water	Edible coatings present a sustainable supplemental/alte

			Evaluate the microbial membership, metabolic capabilities, and intestinal health in response to major and minor cannabinoids using a translational mouse model colonized with human microbiota.
Prenni,Jessic	Horticulture +	Examination c	
Uchanski,Mar	Horticulture +	Expanding the	Expanding the Colorado Agrivoltaics Testing Grounds Der
LoTemplio,Sa	Human Dimer	Understandin	Understanding Stress Recovery and Barriers to Access of
Bright,Alan D	Human Dimer	Human Dimer	Scientists will examine feral swine-related disease risks a
Correia,Joel	Human Dimer	DISES: Resilie	Supports basic social science research about Indigenous
Jacobsen,Jain	Journalism + M	STAR Soil Hea	Compile a soil health inventory that includes soil moistur
Berry,Christo	Marketing	On Premise Si	On Premise Signage to Lower Consumers' Carbon Footpr
Achter,Jeffrey	Mathematics	Arithmetic Sta	Techniques from the Langlands program in general, and I

Bangerth,Wol	Mathematics	Collaborative	This proposal develops the capabilities for realistic, whole-Earth computer simulations of motion over geologic time scales. The open source software developed herein will run on supercompu ter facilities and incorporate many data sets the describe the Earth's current
Bandhauer,Tc	Mechanical E	Toward Justic	Toward Justice-Centered Carbon Management in Nevada
Borch,Thoma	Mechanical E	Structural Fire	Structural Fires at the Wildland Urban Interface: Emissio
Jathar,Shanta	Mechanical E	Understandin	Understanding the contribution of volatile chemical prod
Radford,Dona	Mechanical E	Additive Manu	Additive Manufacture of Fiber Reinforced Composites for
Sampath,Wal	Mechanical E	Student Desig	Student Design Supplement: IUCRC Phase III Colorado S
Volckens,Johı	Mechanical E	Supplement -	Sustainable Household Energy Adoption in Rwanda (SHE
Windom,Bret	Mechanical E	Testing of Liqu	Testing of Liquid-Fueled Gas Turbine with High EGR Fract
Belardinelli,Ju	Microbiology,	Adaptation of	Analyze the effect of mutations in the transcriptional regu
Ebel,Gregory	Microbiology,	Arbovirus Pop	This proposal is to examine how temperature influences
Kading,Rebek	Microbiology,	Impacts of Ra	This research will study arbovirus circulation along an urb
Boone,Randa	Natural Resou	Addressing Cl	Assessing effectiveness of best management practices o
Esmaeili,Saei	Natural Resou	Wild Equids in	This funding opportunity is to conduct research on the ec
Evangelista,P	Natural Resou	Mapping and I	Using satellite remote sensing to map and monitor invasi
Gao,Wei	Natural Resou	Improving Agr	Our project will develop a novel decision support system
Heinrichs,Juli	Natural Resou	CESU-RM: Inv	Continued analysis of ptarmigan populations, habitat, an

Henriksen,Jar	Natural Resou	Leveraging th	Identify microbial consortia that support plant growth in l
Hobbs,Nichol	Natural Resou	CESU-CP: Up	Update Bayesian Model to Estimate Nene Population Dyr
King,Sarah R	Natural Resou	CESU-RM: Ec	Research into the behavior and ecology of feral horses ar
Newman,Gre	Natural Resou	CISE-MSI Thr	Share and access different types of data, information, an
Ogle,Stephen	Natural Resou	Agricultural G	Conducting GHG emission inventories and developing er
Parton,Williar	Natural Resou	Grass-Cast: D	Collaborate in the refinement and continuous improvem
Vogeler,Jody	Natural Resou	CESU-RM: Ad	Investigate the geographic distribution and abundance o
Vorster,Antho	Natural Resou	Invasive Plant	Understand the perspectives and priorities of land owner
Zhang,Yao	Natural Resou	Hawaii Clima	Developing the MEMS-Hawaii ecosystem model, and pro
Swink,Laura A	Occupational	Social Prescri	proposed project will target the reach, signal of effectiver
Sites,James R	Physics	Back-Contact	Partnership proposal to explore contacts and interfaces i
Hitt,Matthew	Political Scier	The Psycholo	Using two nationally representative surveys on the subje
Stallones,Lor	Psychology	Agricultural S	Develop new and creative research related to human hea
Essah,Samue	San Luis Valle	Nitrogen Ferti	Develop nitrogen fertilizer management strategies to imp
Lange,Alex	School of Edu	Thriving in Col	A National Study of LGBTQ+ Students - mixed methods
Brown,Samar	School of Soc	Mechanisms I	Family violence, which includes intimate partner violenc
Carolan,Mich	Sociology	Scaling up an	The project will create a program that will increase the ca
Andales,Allan	Soil + Crop Sc	Lysimeter Op	Develop sufficient data to develop crop coefficients that
Blecker,Steve	Soil + Crop Sc	Biosolids Lan	Quantifying biosolids impacts on improving soil quality/h

Brown,Ansley	Soil + Crop Sc Low-Cost IoT	Encourage the adoption of Best Management Practices (BMPs) that protect surface water quality in Colorado and across the United States, by limitng nitrogen and phosphorus run off on farmlands that accumulate in surface waterways, causing water quality issues.

			Lead the soil carbon and health module of the overall project as well as the data synthesis and management , and modeling. We will also contribute to the development of the socio-economic study.
Cotrufo,Maria	Soil + Crop Sc	Metrics, Mana	
Fonte,Steven	Soil + Crop Sc	Smallholder S	Smallholder Soil Health Assessment - supporting soils re
Gifford,Laurei	Soil + Crop Sc	CSSN 3.0: Th	Understand the implications of large-scale tech and capi
Machmuller,M	Soil + Crop Sc	STAR Soil Hea	Compile a soil health inventory that includes soil moistur
Mason,Richar	Soil + Crop Sc	PARTNERSHIF	The primary outcome from this proposed project is an en
Morris,Geoffr	Soil + Crop Sc	Durable Adap	Durable adaptation to sugarcane aphid for smallholder s
Paustian,Keitl	Soil + Crop Sc	Assessing the	Collecting new data on impacts of agricultural practices
Pires,Joseph (	Soil + Crop Sc	Enhancing Ca	Expand and improve the COMET-Planner Global tool (bet
Raymundo Ca	Soil + Crop Sc	Drought Stres	Drought Stress Tolerance Trait Discovery in Wheat

Schipanski,M	Soil + Crop Sc	Understandin	Addressing the broad issue of agricultural water limitation in the semi-arid Great Plains
Wardle,Erik M	Soil + Crop Sc	Conservation	Monitoring and experimentation to examine the influence
Wilkins,Micha	Soil + Crop Sc	Decoding the	Decoding the Unifying Microbial Metabolic Controllers or
Guan,Yawen	Statistics	Improved Cou	The objective of this project is to improve the physics and
Shaby,Benjan	Statistics	AGEP GRS 20	Develop statistical tools for understanding the spatial structure of the most extreme environmental phenomena like inland floods, wildfires, and coastal storm surges.
Wang,Haonar	Statistics	Cooperative F	Develop new and/or appropriately implement existing sta

Wilson,Thom	Statistics	Ambient Air P	Ambient Air Pollution, Weather, and Placental Abruption (APWA)
Bradley,Thom	Systems Engi	Agent-Based,	Agent-Based, Bottom-Up Medium- and Heavy-duty Electı
Conrad,Steve	Systems Engi	AO2 Optimizir	AO2 Optimizing Electric and Water Grid Coordination unc
Herber,Danie	Systems Engi	Wind Energy v	Wind Energy with Integrated Servo-control (WEIS): A Tool
Ngai,Courtne	The Institute f	CAREER: Criti	Critically examining chemistry culture to support adoptic
Maertens,Juli	VP Faculty Aff	CAREER: From the Forest to the Stream: Exploring Forest Land Cover Controls on Dissolved Organic Matter Character and Aquatic Ecosystem Respiration in Headwater Streams	Creating classroom set of STEM kits and providing evaluation services for Exploring forest land cover controls on dissolved organic matter character and aquatic ecosystem respiration in headwater streams
Moseley,Cass	VP Research	NSF Engines:	Our Engine will harness the power of the region's solutior
Pinnamaneni,	Western Colo	Improving Niti	Investigate the dynamics of potential soil enzyme activity

s risk analysis, economics, and decision science research to improve the scientific basis for wildfire
es and underserved populations, the bias in the measure of elderly FI due to sampling issues, and m
ics (DARE) program bring expertise in economic data management for National Park Service study.
nerative practices, demonstrate the use of innovative and existing technologies for GHG reductions,
New York City Public School system is the 2nd largest purchaser of food in the U.S. Decisions that N

lar photovoltaic for 5 different types of driers, a slicer, a pulverizer, and a sheller. Targets for modific
edented challenges. Declining water supplies due to ongoing drought carry significant implications

cuation orders is critical as more people move to inland areas at risk for flooding and climate change

Indaziflam is an herbicide used for pre-emergent control of IAG. Targeted agencies use indaziflam fo

ısion program. The funds will support the initiation of research and extension programming on critica

plant samples collected from transgenic and control citrus growing in greenhouse and field trials in
nillet, and corn and determine how the addition of pulse crops into the rotations could affect the wat

otprints of an in-state to an out-of-state Buck Island Ranch beef finishing system in Florida.Evaluate
orm-containing product (BCP) for California beef and dairy cattle that has scientifically demonstrate
ning the most efficient ways to allocate air quality monitoring sensors in terms of measurement accu
s to inform producers on the applicability of tech herding for estimating and reducing enteric methan
t – mercury (Hg) – in artisanal and small-scale gold mining (ASGM) systems in Ghana, a country with

s addressing impacts and management responses of the large scale spruce beetle epidemic and Su
the Southeast of Colorado to increase producers' profitability and improve the environmental susta

or accurate predictions on subseasonal-to-decadal (S2D) timescales for predicting both the internal
e climate feedback uncertainty. The dependence of aerosol-cloud interactions on MBL cloud morph
s provide useful information concerning the concentrations, and long-term trends in concentrations
ca to measure aerosol size distributions, aerosol organic and inorganic chemistry, aerosol-cloud pro

CYGNSS data into the coupling between wind-driven surface fluxes and tropical convection.
in Earth System Models, including relations to natural, wildfire, and cloud seeding aerosols synthes

ses, is responsible for numerous fatalities and significant damage every year. Accurate forecasts of e

Tropical Circulation under Climate Change through Idealized Coupled Climate Modeling

CIF) solicitation is to provide the NSF-sponsored atmospheric sciences researchcommunity with acc
anographic and Atmospheric Administration (NOAA) Joint Polar Satellite System in 2027. The primary
sing systems we'll address the early evolution of life and test hypotheses regarding the original natu
ght and aboveground net primary productivity (ANPP) as the indicator of forage production.
of cutthroat (GBCT and CRCT) to new environments, we plan to use a both genomic and morphomet
from our Photosynthetic Desalination system 100-1000 fold by converting the water transport syste
western North American riparian ecosystems in the context of avian community responses by condu
on in Cope's gray treefrog, and how these mechanisms shape the evolution of signals and signaling b
ass prairie at the Konza Prairie Biological Station. Specific tasks will include long-term data synthese
ent restoration approaches conducted in western riparian ecosystems, to inform future restoration e
n & Game (ADFG) to use whole genome resequencing to inform the ADFG of the genetic makeup of b

echnology & data analysis with advanced leak detection for natural gas leaks in distribution systems
nderstand the decline of the Eastern Pacific Stock of northern fur seals (Callorhinus ursinus) by more
d management from academia, government and industry for a two day workshop focused on prioriti
supplements can reach and alter the follicular environment and ultimately the oocyte.
ing a baseline inventory of arthropods using metabardocing and new sources of eDNA.
osystems of Fort Hunter Liggett in California's Central Coast region. We aim to collect specimens acr
nclude primary source research to produce historic contexts and fieldwork to identify cultural resour
pdate databases as well as CELA conference. Additionally, CNEE will provide multi-state stakeholde

prove access to compounds highly desired in the pharmaceutical industry to improve human health
roperties simulations on fuel blends identified by NREL and Exxon Mobil Research & Engineering to u
oncerns posed by precious metal photoredox catalysts while unlocking unprecedented reactivity an
t listening sessions with various interest groups involved in the Puerto Rico Hub portion of the NSF Sl

ity of the tropical carbon flux as well as its drivers on regional scales through the creation and interro

ical Development Lab Between the Cooperative Institute for Research in the Atmosphere (CIRA) Col

nfrastructure needed to address current and future air quality issues, such as improving or developin

ıing Numerical Approaches to Extreme Precipitation Estimation for Infrastructure Hazard Risk Planni
ıide, Inputs Guide, Frequently Asked Questions (FAQ) document, Examples Guide, and Analysis Guic

ions of gas-phase ammonia (NH3) aboard the NOAA WP-3D aircraft for an essential measurement f
es in the Indian and West Pacific Ocean Forced by Intraseasonal Westerly Wind Events

ry as well as their impact on air quality and climate. Characterizing the aerosol in both of these envir

groundwater withdrawal estimation in Arizona: Insights into surface water deliveries, irrigation efficie

dlife Trafficking and Biosafety from Zoonotic Pathogens in the Greater Limpopo Transfrontier Conser
ıd timing of visualization of the biliary tract after indocyanine injection and effect of one-lung ventilat

dlife Trafficking and Biosafety from Zoonotic Pathogens in the Greater Limpopo Transfrontier Conser

lex natural systems facilitate the evolution of resistance to introduced pathogens, and how such res

at is informed by regional efforts and includes a vision, goals, metrics, climate roadmap, and social s

m digital aerial photography and topographic maps, based on the best estimation of fen boundaries a

rotations can best be optimized across variable field landscapes and variable climate for improving

carbon, and soil health modeling to support decision-support systems at multiple scales (e.g., COM
carbon, and soil health modeling to support decision-support systems at multiple scales (e.g., COM

ber Risk in Nuclear Power Plants in Support of the Design of Cyber Protection Architectures
rgy generation and storage resources connected to power grids which are responsible for distributing
t a volunteer's current level of expertise to provide training for the Pollinator Conservation Communi

undance, and subsequent slow recovery, remain poorly understood so we propose to enhance existi
ınge for the three species, water samples will also be collected to understand water quality in these
new methane quantification models and technologies at complex facilities that are either a dormant
ntory for the statewide upstream oil and gas sector utilizing site-level aircraft quantification of emissi
ent single-blind controlled gas release testing of Puloli's methane quantification technology at client

od that Colorado farmers, farm workers, and farm family members with disabilities will experience s
presented groups pursuing advanced degrees or entering careers in the biomedical sciences.

of producing cellulose nanocrystals (CNCs) using agrowaste from hemp production to provide a valu
:s to study the economics of airport wildlife hazards, aircraft- wildlife collisions (i.e., wildlife strikes),
: alternativesin Llanos de Moxos, the biggest wetland complex in the Amazon, which is threatened by
ıterannual variation in rainfall on tropical forest carbon across biogeographic gradients, considering

ubric to evaluate student notebook entries and measure the STEM kit's effectiveness in developing p

ition Network) trial participants in Guatemala to characterize the impact of the 500-day randomized
macrophage IL-22 signaling to promote resolution of organic dust-induced lung inflammation
al evaluating the effect of a free LPG (liquefied petroleum gas) stove and fuel intervention among 80
alth and safety in agriculture and forestry within Federal Region VIII. Build research capacity related t

culate matter) among female sugarcane and non-sugarcane workers during work and non-work shift

dulator of Parkinson's disease under the overall direction of Environmental and Radiological Health S
alth and safety in agriculture and forestry within Federal Region VIII. Build research capacity related t
o to develop a model to predict climate change effects on host-pathogen dynamics for the Boreal To

etween the two Colorado sculpin taxa, and whether they are useful to differentiate taxa, is required to

and Foraging Habitat Requirements of Nectar Bats in New Mexico through eDNA, PIT Tag Detection,
forecasting avian migration, deliver a tool for actionable aerial conservation, foster interactive publi

opulation demography of long-nosed bats in southwestern New Mexico, including climate data, nect
stream and riparian food webs within occupied or suitable habitat for native cutthroat trout bysurve

education programs to address diabetes self-care management, diabetes prevention, and food secu

eatment monitoring and remeasurement of plots that we helped to establish between 2019-2023 to

d implement a long term monitoring program for groundwater-fed wetlands. The goal is to design and
sive annual grasses on fuel moisture content over the summer at several open space sites along the
al networks between Indigenous knowledge holders and community members, physical and ecologi

Reductions on Landscape-Level Patterns of Wildfire Activity, Effects, and Suppression Operations

t drought have when they occur at different times of year as drought has a major impact on the quan

ls (soils, water, and vegetation) to road salt. Will help inform winter road management to minimize e

: and monitor post-fire watershed restoration practices that include a wide array of biological and ph
characterizing all glaciers within the Alaska region, providing metrics of glacier vulnerability, and the
and potential contaminant pathways for Shanghai Spring, which is located near the Fort Leonard Wo

d new information describing groundwater resources of National Park Service units in Upper Colorad
uter simulations of motion over geologic time scales. The open source software developed herein wi
Montana and use these field data with numerical models to understand how logjams influence char
Fire Fighters, including exposure assessment, carcinogenic effects and risk management
al Park, conduct one or more additional new oral histories, and present findings publicly.

unicate the information to the scientific community and Cannabis production industry to make bette
at-free or peat-reduced nursery container production of Colorado native plant species.

fety evaluations on numerous container-grown herbaceous perennials and annuals. The research p
rnative to standard storage methods for fresh produce and have attracted increasing attention due t

associated with feral swine market chains, and the effectiveness of state policies and laws to curb tr
s territorial management associated effects on biocultural diversity conservation in the context of va
e data and produce regionally relevant production and climate-specific SHMS templates for future a

beyond endoscopy in particular, to understand regularities and variations in the sizes of isogeny clas

lucts and cooking emissions to air quality and new particle formation and growth in urban environme

ulator Crp, naturally evolved during infection in cystic fibrosis patients, providing a better understanc
arbovirus population biology via alterations to the selective environment encountered within mosqu

n pasture lands within the Hudson Valley watershed, which provides water to New York City and agr
cology of feral equids with a focus on feral burros across the western USA. Specific research will moc

for agricultural managers to navigate efficient water and nutrient use in order to sustain food and en

lunar-like environments, thereby minimizing the amount of Earth-derived material required to cultiva

ıtity-scale emission estimation tools for forestry and agriculture. This cooperative agreement will fur
ent in Grass-Cast for estimating aboveground productivity and maintaining environmental sustainab
f invasive plants, focusing on both new and well established species of management concern. The re
ʻs/managers around invasive plant species in the study region and test tools for mapping and manag

ness, and implementation strategies for a single-site OT-led social prescription program.

ct of American attitudes towards free speech and expression, the team proposes to study the role of

›rove nitrogen use efficiency and limit emissions without negatively affecting potato tuber yield and c

e (IPV) and child maltreatment, is a significant public health problem and disproportionately affects
apacity of current farm to school coordinators across the US, provide a learning space for communiti

ealth and system resiliency as compared to inorganic nitrogen fertilizer across the landscape.

ital-driven climate action so we can envision and shape more just and resilient futures.
e data and produce regionally relevant production and climate-specific SHMS templates for future a
hanced understanding of grain quality in triticale, which will directly inform our breeding efforts that

on soil C and soil health, to improve the local specificity of quantification tools, and engage with fed
a version published April 2023), a tool based on UNFCCC IPCC methodologies that provides decisio

e of source water, water distribution, and best management practices (BMPs) on water quantity and

d numerics of the sea ice dynamic core in E3SM by supplying and evaluating an implementation of th

atistical methodsfor ecological data that will be used to communicate experimental and process res

n-oriented climate, environmental, data sciences, technology innovation, and entrepreneurial ecosy

r and inorganic nitrogen availability during the decomposition period of winter cover crops in reduced

etrics to account for higher mortality rates and lower life expectancies in individuals experiencing fo

and develop and test a pilot market-based program that benefits underserved producers.
lew York City makes in terms of procurement have the potential to significantly impact environments

ation will be refined in consultation with local farmers and in consideration of potential markets for s
for the river's water users, especially within the agricultural sector of Upper Basin states.

increases flood frequency and intensity. Public institutions such as the National Oceanic and Atmo

r weed management, habitat restoration, and/or research. Impacts of residual indaziflam on native s

l wheat diseases including stripe rust and viruses vectored by the wheat curl mite, including Wheat

several states to understand the plant-microbe interaction dynamics associated with transgenic citr
er footprint and water use efficiency of the cropping system in both dryland and irrigated systems.2)

economic implications of the shift from an in-state to out-of-state Buck Island Ranch beef finishing s

extensive ASGM activity, and focuses on two ASGM communities with contrasting geology, mining ty

idden Aspen Decline on the GMUG NF, and monitoring in support of the Revised Forest Plan.
inability including prevent soil erosion, reduce soil compaction and nutrient leaching, improve soil b

ology has been based on satellite data. However, satellite data cannot provide details of dynamics,

perties, downwelling spectral shortwave irradiance at both visible and near-infrared wavelengths, th

ized into comprehensive parameterizations to use in collaborative modeling investigations of aerosc

extreme rainfall remain elusive and this project will address this gap in knowledge by using observati

cess to specialized instrumentation for field and laboratory-based studies. The CIF solicitation reque
y goal is to demonstrate a method for the seamless extension of the Earth Radiation Budget (ERB) re

icting syntheses and analyses of existing datasets of bird, vegetation, environmental, and manageme

es, contributing to the primary production core area, manuscript preparation, design and implement

reeding populations of seven Species of Greatest Conservation Concern through the development o

e than two-thirds over the last half-century as well as declining pup production on St. Paul Island, the

oss the region's terrestrial and aquatic environments that include a unique variety of soil types and p

er engagement and provide TNC with guidance on state-level energy transition as well as IIJA / IRA fur

nderstand why certain surrogate combinations exhibit a non-linear sooting tendency trend when ble

EAS Islands Alliance project. The listening sessions are designed to solicit input and feedback on exi

gation of a multi-model ensemble of monthly gridded fluxes of CO2 and CO for 2010-2020 that are c

orado State University and Meteorological Development Laboratory (MDL) Office of Science and Tec

g measurement and modeling methodologies to better understand and quantify the chemical, physi

or understanding precursor emissions and pollutant formation in large, coastal urban areas.

onments would be necessary to address many of the planned science questions for this mission.

istance may transform landscape-scale disease dynamics. The emerging resistance to plague (Yers

lET-Farm, COMET-Planner) and improve soil-based emissions estimates in the US National Greenho
lET-Farm, COMET-Planner) and improve soil-based emissions estimates in the US National Greenho

g energy to the consumers, studying various forms of renewable energies to make them more decen

ing ADFG studies of emperor geese overwintering at two geographically distinct locations in Alaska: S

: midstream (or similar) facility or a synthetic site that has large obstructions and is classified as aerc
ions to help facilitate the state of Colorado's efforts to enact greenhouse gas (GHG) reduction meas

uccess in agricultural production and enhance the quality of life of farmers, ranchers and other agric

effects of natural seasonal drying, interannual rainfall variation, and throughfall reduction effects or

LPG (liquified petroleum gas) stove intervention on later health impacts. Specifically, we will examir

0 pregnant women in each of 4 countries (Guatemala, India, Peru, Rwanda) on birth outcomes and c
:o human health and safety in agriculture and forestry in Federal Region VIII. Foster new, collaborati

to human health and safety in agriculture and forestry in Federal Region VIII. Foster new, collaborati
ad, which is a declining high-elevation amphibian species that is state-listed in CO, WY, and NM

c outreach, and train graduate and undergraduate students to form a center for aeroecology.

ying 10 sites in the first three years post-fire, representing paired burned/unburned stream reaches.

collect baseline conditions for ongoing monitoring of changes in tree growth, mortality, and regenera

l implement hydrology and vegetation monitoring to quantify the characteristics of fens in their natu
Colorado Front Range. Fuel moisture is a key factor influencing wildfire behavior and risk; thus, bette
cal Earth systems scientists, social scientists, and early career scholars from underrepresented cult

tity and quality of forage and, ultimately, can impact the financial sustainability of ranching operatio

ysical approaches designed to facilitate riparian vegetation recovery and enhance natural stream ch

lo Basin (i.e. Wyoming, Utah, Colorado, and New Mexico). Ultimately, this project aims to support NF
ill run on supercomputer facilities and incorporate many data sets the describe the Earth's current s

er use of increasingly scarce fresh-water resources and lower fertilizer inputs, a point source of pollu

lants and the agrichemicals to be evaluated were on the high priority list from IR-4 for research for 2(
o environmental considerations and consumption trends toward the use of convenience foods (e.g.

rying external pressures driven by logging, agriculture, and hydrocarbon extraction in the Ecuadoriar

ding on the strategies utilized by Mabs to cope, resist, and ultimately thrive in the hostile environmen

eements in place allow for localized management of the watershed with reduced regulatory oversigh
del data collected over 5 years in 2 burro populations, as well as horse data collected during the sam

nergy crop production in the Corn Belt. The UVMRP is part of the Extension team and will specifically

ıte crops; and collect and enrich for plant-associated and desert-crust microbes capable of toleratin

ther improve USDA’s capacity to provide accurate, reliable, and transparent GHG emission estimate

esearch will be used to improve assessments of risk, biogeographic patterns of invasive plants and tl

authoritarian attitudes among both liberals and conservatives as it relates to support for speech.

low-income and minoritized women and children under one year of age. Our unifying hypothesis is tl
ies desiring creation of farm to school coordinator positions, and develop research and resources av

aim to produce a food-grade triticale, bringing to fruition the vision of Norman Borlaug and many oth

eral and state agencies and other relevant organizations within Maryland to make the tools and infor
n support on impacts of conservation practice adoption on agricultural carbon and greenhouse gas

water quality (nutrients and sediments) within the CEAP Colorado South Platte River watershed.

e elastic-decohesive, sea-ice model as a module within the existing core, MPAS-Seaice.

ults through scientific journals and other publically available technology transfer methods.

spheric Administration (NOAA) provide information to the public related to flood risks and evacuatio

seed banks are little known and of concern. IAG serve as fine fuels for wildfire; indaziflam applicatior

Streak Mosaic Virus, Wheat Mosaic Virus and Triticum Mosaic Virus. These funds will enhance resea

us.2. Perform soil and plant analysis to evaluate the effect of transgenic citrus on soil health and mic
Monitor the impact of pulses on soil carbon sequestration and soil health.3) Evaluate the impact of t

iodiversity, enhance water infiltration and quality, suppress weeds and diseases, increase carbon s

thermodynamic, cloud, and precipitation in the boundary layer. The ARM observations provide a grea

ne surface energy budget comprising downwelling and upwelling shortwave and longwave radiation a

ons,machine learning, and numerical simulations to quantify the differences between the most extr

sts proposals from instrument and facility providers who will make their equipment available for com
cord, essential for recognizing changes to Earth's climate system and for constraining future predict

ation of experimental modifications to the Irrigation Transect study, overseeing new climate change

f genoscapes, while also describing the regions where these species winter and the routes they trav

sting programming and to inform the trajectory and development of the SEAS Island Alliance.

constrained by the global in situ network as well as the GOSAT and OCO-2 satellite data.

hnology Integration (OSTI) National Weather Service (NWS) National Oceanic and Atmospheric Adm

inia pestis) in prairie dogs (Cynomys spp.) will serve as a model system for this investigation. Prairie

use Gas Inventory. In addition, AI-driven advances in risk assessment and adaptation planning, Adap
use Gas Inventory. In addition, AI-driven advances in risk assessment and adaptation planning, Adap

cultural workers with disabilities, so that they, their families, and their communities continue to succ

ıe molecular and respiratory effects of household air pollution in children aged 4-7 years in the HAPI

/e partnerships among researchers, private industry, and regional and federal government agencies

/e partnerships among the HICAHS researchers, private industry, and regional and federal governme

ation, as well as a forest health evaluation of insect and disease for one of the Adaptive Silviculture f

ral condition, and those grazed by livestock. These data and analyses will be used to assist the Fores
er understanding the effects of herbicide treatment on fuel moisture will provide Front Range land m
ural communities to facilitate convergence research to improve data models for coastal change in t

ns and the timing of drought is becoming more variable during the growing season making it more di

ıannel dynamics and valley bottom complexity to trap sediment, dissipate flood flows, and retain nut

PS efforts to identify and mitigate existing threats to park groundwater resources and proactively sec

022. Any visual toxicity will be observed throughout the evaluations. Dry weight and growth differen

e time periods and into the next 3 years. Studies will focus on spatial ecology, demography of popula

contribute to the work by transferring and implementing the information delivery system into the UVI

hat prenatal IPV and maternal stress will carry over into the postnatal period to negatively affect mot

er small grain geneticists and breeders. This work will be conducted in high yielding, broadly adapte

mation available to farmers and their support infrastructure (e.g., crop consultants, farm organizatic

ns and corresponding reductions of IAG reduce fuels. We need to improve understanding of indazifla

crobial mediated ecosystem processes. 3. Analyze microbiome dataset to evaluate the effect the shif
the three pulse crops on nodule and rhizosphere community composition, plant-rhizobia interactions

el in between. The sum of this work will help the ADFG implement valuable management decisions f

dogs, keystone species of North America?s central grasslands, have experienced dramatic populati

ent agencies with stakeholder interests in human health and safety in agriculture and forestry.

st Service in understanding the influence of grazing on fens and develop suitable guidelines for quant
anagers with important information that can help determine priorities for natural resource and invas
he Arctic, Gulf of Mexico, U.S. Caribbean, and Pacific Island regions, and to inform geohazard and na

fficult for stakeholders to predict the impact a drought might have on their annual income.

ations, and habitat selection modeling of feral equid populations that span the Rocky Mountain regio

her-infant relations and regulation but will be differentially associated with infant health.

m effects on plant community development.

ts in the microbial community structure

or populations of greatest conservation concern.

on reductions over the past century due to sylvatic