

# **MEMORANDUM OF UNDERSTANDING**

Continuation of the

## **COOPERATIVE ECOSYSTEM STUDIES UNITS NETWORK**

among the

**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION**

**U.S. DEPARTMENT OF AGRICULTURE**

**Agricultural Research Service**

**Farm Service Agency**

**Natural Resources Conservation Service**

**U.S. Forest Service**

**U.S. DEPARTMENT OF COMMERCE**

**National Oceanic and Atmospheric Administration**

**U.S. DEPARTMENT OF DEFENSE**

**Office of the Assistant Secretary of Defense  
for Energy, Installations, and Environment**

**U.S. Army Corps of Engineers–Civil Works**

**U.S. DEPARTMENT OF THE INTERIOR**

**Bureau of Indian Affairs**

**Bureau of Land Management**

**Bureau of Ocean Energy Management**

**National Park Service**

**U.S. Bureau of Reclamation**

**U.S. Fish and Wildlife Service**

**U.S. Geological Survey**

This MEMORANDUM OF UNDERSTANDING (MOU) is hereby entered into by and among the National Aeronautics and Space Administration, Agricultural Research Service, Farm Service Agency, Natural Resources Conservation Service, U.S. Forest Service, National Oceanic and Atmospheric Administration, U.S. Department of Defense, Office of the Assistant Secretary of Defense for Energy, Installations, and Environment, U.S. Army Corps of Engineers–Civil Works, Bureau of Indian Affairs, Bureau of Land Management, Bureau of Ocean Energy Management, National Park Service, U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, and U.S. Geological Survey (collectively, "federal agencies").

## **ARTICLE I. PURPOSE**

The participating federal agencies have many overlapping and complementary mission areas and scientific and conservation interests. This MOU encourages long-term interagency coordination and cooperation in furtherance of the objectives of the Cooperative Ecosystem Studies Units (CESU) Network. In implementing this MOU, the federal agencies shall emphasize quality public service, mutually-beneficial partnerships, scientific and scholarly integrity, and efficient and effective use of public resources.

## **ARTICLE II. INTRODUCTION**

### **A. Background**

Management and stewardship of the Nation's lands, waters, and public trust resources requires skillful public service supported by sound science. To help meet the need for sound science, a network of Cooperative Ecosystem Studies Units was established (pursuant to 54 U.S.C. § 100703, formerly 16 U.S.C. § 5933). CESUs provide research, studies, assessments, monitoring, technical assistance, and education to federal land and trust resource management, environmental, and research agencies, and their partners. CESUs are organized around biogeographic areas. Their broad scope includes the biological, physical, engineering, social, and cultural sciences needed to address critical natural and cultural resource management and trust resource stewardship issues. Each CESU includes several federal agencies, a host university, partner universities and other institutions. Participating agencies share benefits and interests with CESUs, including, but not limited to, a broadened scope of scientific services, increased technical assistance, and educational opportunities for resource and environmental managers and others, and increased diversity of research scientists and institutional partners.

### **B. Mission**

The mission of the CESU Network is to promote, conduct, and provide research, studies, assessments, monitoring, technical assistance, and educational services nationwide in support of the missions of participating federal agencies and their

partners concerning natural and cultural resource management on public and/or private lands and waters, and management of public trust resources. To achieve this mission, each CESU project is conducted cooperatively and with substantial involvement by and benefits to federal and non-federal partners.

### **ARTICLE III. OBJECTIVES**

The objectives of the CESU Network are to:

- A.** Link universities (including minority institutions) and other nonfederal partners with federal land and trust resource management, environmental, and research agencies in new and innovative ways that deliver high-quality research and studies, provide usable knowledge, and support science-based decision-making;
- B.** Create new and innovative opportunities for federal resource management, environmental, and research agencies to collaborate and coordinate their research, studies, technical assistance, and education activities;
- C.** Provide an efficient and effective mechanism to promote, conduct, and provide research, studies, assessments, monitoring, technical assistance, and educational services through collaborative projects of concern to federal resource managers, their partners, and decision-makers; and
- D.** Accomplish the above objectives through an efficient, effective, and evolving organization that includes federal agencies, universities, and other partners.

### **ARTICLE IV. AUTHORITIES**

This MOU is entered into by the following agencies consistent with the missions and any other authorities promoting science cooperation for each agency.

#### **A. National Aeronautics and Space Administration**

Among the National Aeronautics and Space Administration's (NASA) missions is the utilization of aeronautical and space activities for scientific purposes, encompassing research designed to expand knowledge of the Earth, its resources, and the effects of climatic change on the transformation of its ecological systems. In addition, NASA is responsible for the environmental stewardship of the land, water, and wildlife resources under its control. In accordance with 51 U.S.C. § 20113 (e) of the National Aeronautics and Space Act of 1958 (51 U.S.C. § 20101 et seq.), NASA is authorized to enter into agreements with other federal agencies consistent with and in furtherance of its areas of responsibility.

## **B. Agricultural Research Service**

The Agricultural Research Service (ARS) mission is to conduct research to develop and transfer solutions to agricultural problems of high national priority and provide information access and dissemination to: ensure high-quality, safe food and other agricultural products; assess the nutritional needs of Americans; sustain a competitive agricultural economy; enhance the natural resource base and the environment; and provide economic opportunities for rural citizens, communities, and society as a whole. In accordance with 7 U.S.C. § 3101(2), ARS is authorized to enter into a Memorandum of Understanding to assist in providing research, technical assistance, and education to increase the long-term productivity of the United States agriculture and food industry while maintaining and enhancing the natural resource base on which rural America and the United States agricultural economy depend.

## **C. Farm Service Agency**

The Farm Service Agency's (FSA) mission is to equitably serve all farmers, ranchers, and agricultural partners through the delivery of effective, efficient agricultural programs for all Americans. FSA administers the Conservation Reserve Program (CRP) on behalf of the Commodity Credit Corporation (CCC). The CRP is a voluntary program for agricultural landowners. The CRP provides annual rental payments, technical assistance, and cost-share assistance to landowners who establish long-term, resource conserving covers on eligible farmland. To accomplish its mission, FSA has established the Monitoring, Assessment, and Evaluation Project (MAE) to employ sound science to quantify CRP impacts on ecosystem services including: water quality, wildlife habitat, carbon sequestration, soil productivity, and hydrologic storage. FSA has authority to join the Cooperative Ecosystem Studies Units Network under 7 U.S.C. § 2204b(b)(4). The CCC has authority under 15 U.S.C. § 714b(g).

## **D. Natural Resources Conservation Service**

The Natural Resources Conservation Service (NRCS) improves the health of our Nation's natural resources while sustaining and enhancing the productivity of American agriculture (16 U.S.C. §§ 590(a)-(f)). We achieve this by providing voluntary assistance through strong partnerships with private landowners, managers, and communities to protect, restore, and enhance the lands and waters upon which people and the environment depend. NRCS scientists and technical specialists identify appropriate technologies in research, development, and transfer them to field staff for recommending the technologies to America's farmers and ranchers. Under Section 714 of Pub. L. 106-387, 7 U.S.C. § 6962(a), NRCS is authorized to enter into cooperative agreements to assist in providing research, studies, technical assistance, and educational services consistent with the mission of the NRCS and the CESU Network.

## **E. U.S. Forest Service**

The U.S. Department of Agriculture Forest Service (USFS) mission is to achieve quality land management under the sustainable multiple-use management

concept to meet the diverse needs of the people (16 U.S.C. §§ 1641-1646). In accordance with 7 U.S.C. § 3318(b), the USFS is authorized to enter into a joint venture agreement to assist in providing agricultural research and teaching activities. In accordance with the Interior and Related Appropriations Act of 1992 (Pub. L. 102-154), the USFS is authorized to enter into a Challenge Cost-share Agreement to cooperate with others in developing, planning, and implementing mutually beneficial projects that enhance Forest Service activities, where the cooperators provide matching funds or in-kind contributions. In accordance with Wyden Amendment (Pub. L. 105-277, Section 323 as amended by Pub. L. 109-54, Section 434), the USFS is authorized to enter into a Cooperative Agreement or Participating Agreement for the protection, restoration, and enhancement of fish and wildlife habitat, and other natural or cultural resources on public or private land; the reduction of risk for natural disaster where public safety is threatened; or a combination of both. Wyden Amendment agreements must provide a benefit to the natural or cultural resources on National Forest System lands within the watershed.

#### **F. National Oceanic and Atmospheric Administration**

The mission of the National Oceanic and Atmospheric Administration (hereafter NOAA) is to understand and predict changes in the Earth's environment and conserve and manage coastal and marine resources to meet our Nation's economic, social, and environmental needs. Authorities to participate in and conduct activities through the Cooperative Ecosystem Studies Units Network include 33 U.S.C. § 883(e), which gives NOAA the authority to enter into cooperative agreements with States, Federal Agencies, public or private organizations or individuals for authorized surveys or investigations and other specified purposes. NOAA also has the authority under 15 U.S.C. § 2901 et seq., to enter into contracts, grants, or cooperative agreements for climate-related activities. Finally, the Coastal Zone Management Act at 16 U.S.C. § 1451 et seq., grants NOAA the authority to coordinate with Federal Agencies and provide financial and technical assistance to states and territories to preserve, protect, develop, and where possible, to restore or enhance, the resources of the Nation's coastal zone for this and succeeding generations, among other things. In accordance with the authorities listed above, NOAA is authorized to enter into agreements with States, nonprofit organizations, academic institutions, and other partners to support research, technical assistance, and educational services consistent with the mission of NOAA and the CESU Network.

#### **G. U.S. Department of Defense, Office of the Assistant Secretary of Defense for Energy, Installations, and Environment**

The U.S. Department of Defense (DoD) manages about 25 million acres of land, and the natural and cultural resources found there, and for this agreement includes the Office of the Secretary of Defense, the Military Services, the Defense Logistics Agency, the National Guard Bureaus, and the Military Reserve Components. DoD's primary mission is national defense. DoD's conservation program supports this mission by ensuring realistic training areas, and managing

its resources in ways that maximize available land, air, and water training opportunities. DoD environmental stewardship activities are authorized under the Sikes Act, as amended. In accordance with one or more of the following: 16 U.S.C. § 670c-1, 10 U.S.C. § 2358, 10 U.S.C. § 2694, 10 U.S.C. § 2684, and Pub. L. 103-139 (FY 94 NDAA, page 107 Stat. 1422), DoD is authorized to enter into cooperative agreements with States, nonprofit organizations, academic institutions, and other partners to support research, technical assistance, and educational services consistent with the mission of the DoD and the CESU Network.

#### **H. U.S. Army Corps of Engineers–Civil Works**

The U.S. Army Corps of Engineers' Civil Works Program (USACE-CECW) provides assistance in the development and management of the nation's water resources. The main missions of USACE-CECW, i.e., the Corps, are 1) to facilitate commercial navigation, 2) to protect citizens and their property from flood and storm damages, and 3) to protect and restore environmental resources. The Corps carries out most of its work in partnership with Tribal, state, and local governments and other nonfederal entities. The Corps must rely upon using the best available science in the evaluation of water resources needs and in the development of recommendations for water resources management. The university and scientific institutions that comprise the CESU Network have knowledge and expertise of the latest scientific advances that will assist the Corps in reaching sound, scientifically based decisions. Membership in the CESU Network thus provides direct access to the sound science and technical base upon which the Corps can develop its sound, credible conclusions.

Corps field offices may avail themselves of support from the regional CESUs by collaborating with the Engineer Research and Development Center, who has the authority to enter into cooperative agreements with such CESUs, thus enabling these Corps offices to receive scientific support from regional CESU members. Each CESU provides independent and objective research and technical assistance that will directly benefit the Corps' missions and programs. In addition, by participating in the CESU, scientists within the Corps will have access to university resources within the CESU Network and be able to interact with colleagues in various scientific disciplines, and thereby further their own professional development. Furthermore, by participating in the CESU Council, USACE-CECW will broaden and strengthen its partnerships with the other agencies and entities which comprise the Council.

USACE-CECW is authorized to cooperate with other agencies in accordance with Title 33 U.S.C. § 2323(a) and 10 U.S.C. § 3036(d). USACE-CECW is authorized to perform research and development projects by cooperative agreements or grants by the authority of 10 U.S.C. § 2328. Additionally, USACE-CECW may enter into transactions under the authority of 10 U.S.C. § 2371 in carrying out basic, applied, and advanced research projects.

## **I. Bureau of Indian Affairs**

Bureau of Indian Affairs (BIA) is the oldest bureau of the United States Department of the Interior. Established in 1824, BIA currently provides services to approximately 1.9 million American Indians and Alaska Natives. There are 566 federally recognized American Indian tribes and Alaska Natives in the United States. The mission of the Bureau of Indian Affairs is to: "... enhance the quality of life, to promote economic opportunity, and to carry out the responsibility to protect and improve the trust assets of American Indians, Indian tribes, and Alaska Natives." BIA has responsibility for the administration and management of 55 million surface acres and 57 million acres of subsurface minerals estates held in trust by the United States for American Indian, Indian tribes, and Alaska Natives. BIA serves a special role, both serving tribes through trust management and by providing technical support and advice across a broad range of topics. The BIA is also the lead agency providing for federal management of the trust corpus held on behalf of tribal government and individual beneficial owners and as such is tasked with coordinating science, technical education, and management needs for those trust resources. The tribes, through the Indian Self-Determination and Education Assistance Act of 1975 (Pub. L. 93-638) are authorized to contract BIA management functions and as such mission needs, research results, and education efforts serve and enable tribal and BIA staff. The Act also authorized the federal government to follow specific contracting regulations for Recognized Federal Indian Tribes, and with tribal approval, tribally chartered Indian colleges and universities.

BIA participation in the CESU Network will include support, coordination, and cooperation focused on science and education for climate and trust resource management, as well as other areas within its range of mission-related services and activities. BIA is authorized to enter into cooperative agreements under the general authority for climate change via the Snyder Act of 1921, as amended, 25 U.S.C. § 13; for FY14 (2-year funding) via Pub. L. 113-76, and FY15 (2-year funding) via Pub. L. 113-164, as amended (and subsequent annual budget appropriations as may be authorized during the term of the agreement); and for any potential Forestry and Wildland Fire Management program efforts, via the National Indian Forest Resources Management Act of 1990, Pub. L. 101- 630. BIA has the authority to enter into this agreement pursuant to 25 U.S.C. § 2; the Education and Training Program, 23 U.S.C. § 6004; and Snyder Act of 1921, as amended, 25 U.S.C. § 13.

## **J. Bureau of Land Management**

The Bureau of Land Management (BLM) administers public lands within a framework of numerous laws. The most comprehensive of these is the Federal Land Policy and Management Act of 1976 (FLPMA). All Bureau policies, procedures, and management actions must be consistent with FLPMA and the other laws that govern use of the public lands. It is the mission of the BLM to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations (43 U.S.C. § 1701 et seq.). In

accordance with 43 U.S.C. § 1737(b), the BLM is authorized to enter into contracts and cooperative agreements involving the management, protection, development, and sale of public lands.

#### **K. Bureau of Ocean Energy Management**

The Bureau of Ocean Energy Management (BOEM) oversees the exploration and development of oil, natural gas and other minerals and renewable energy alternatives on the Nation's outer continental shelf. BOEM continues to look for better ways to serve the American people and to ensure that the Nation receives the best value for its resources now and into the future. The program not only supports decisions made within the Department of the Interior, but also provides other Federal regulators, and the coastal states, and local governments with the information necessary to ensure that all stages of offshore energy and mineral activities are conducted in a manner to protect both the human and natural environments. Outer Continental Shelf Lands Act (OCSLA) (43 U.S.C. §§ 1331-1356) Section 1346 mandates the conduct of environmental and socioeconomic studies needed for the assessment and management of environmental impacts on the human, marine, and coastal environments which may be affected by oil and gas, renewable energy or mineral development. OCSLA Section 1345 authorizes the use of cooperative agreements with affected States to meet the requirements of OCSLA, including sharing of information, joint utilization of available expertise, formation of joint monitoring arrangements to carry out applicable Federal and State laws, regulations, and stipulations relevant to outer continental shelf operations both onshore and offshore. BOEM can enter into cooperative agreements with State offices, and public colleges and universities within the affected states.

#### **L. National Park Service**

The National Park Service (hereinafter called NPS) manages areas of the National Park System “to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations” (54 U.S.C. § 100101 et seq.). In support of this broad mission, the Secretary of the Interior “shall ensure that management of System units is enhanced by the availability and utilization of a broad program of the highest quality science and information” (54 U.S.C. § 100702), and “shall enter into cooperative agreements with colleges and universities, including land grant schools, in partnership with other Federal and State agencies, to establish cooperative study units to conduct multi-disciplinary research and develop integrated information products on the resources of the System, or the larger region of which System units are a part” (54 U.S.C. § 100703). The NPS is authorized to enter into cooperative agreements with public or private educational institutions, States, and their political subdivisions, for the purpose of developing adequate, coordinated, cooperative research and training activities concerning the resources of the National Park System (54 U.S.C. § 101702(b)); with State, local and tribal governments, other public entities, educational



institutions, and private nonprofit organizations for the public purpose of carrying out National Park Service programs (54 U.S.C. § 101702(a)); with State, local, or tribal governments, other Federal agencies, other public entities, educational institutions, private nonprofit organizations, or participating private landowners or individuals for the purpose of protecting natural resources of units of the National Park System through collaborative efforts on land inside and outside of National Park System units (54 U.S.C. § 101702(d)) or to investigate, protect, preserve, maintain, or operate any historic or archeologic building, site, or object of national significance (54 U.S.C. §§ 320101-320103); and with any State or local government, public or private agency, organization, institution, corporation, individual, or other entity for the purpose of sharing costs or services in carrying out authorized functions and responsibilities of the Secretary of the Interior with respect to any unit or program of the National Park System, any affiliated area, or any designated National Scenic or Historic Trail (54 U.S.C. § 101701). NPS is also authorized to provide conservation, recreation, and disaster assistance to partners to help them achieve goals of mutual interest (54 U.S.C. § 200103, 16 U.S.C. § 1723(c)), and support projects to be carried out on Federal, State, local, or private lands as part of disaster prevention or relief efforts in response to an emergency or major disaster declared by the President under the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. § 5121 et seq.). In accordance with the aforementioned authorities, the NPS is authorized to enter into this interagency MOU and individual CESU Agreements to continue to assist in providing research, technical assistance and education.

#### **M. U.S. Bureau of Reclamation**

The U.S. Bureau of Reclamation (BOR) manages, develops, and protects water and related resources in an environmentally and economically sound manner in the interest of the American public (43 U.S.C. Chapter 12). The BOR is authorized to enter this agreement under Pub. L. 111-11 Subtitle F, Secure Water, Section 9504(b) Research Agreements, which states that: Authority of Secretary – The Secretary may enter into one or more agreements with any university, nonprofit research institution, or organization with water or power delivery authority to fund any research activity that is designed--(A) to conserve water resources; (B) to increase the efficiency of the use of water resources; or (C) to enhance the management of water resources, including increasing the use of renewable energy in the management and delivery of water. According to Section 9509 - The Secretary may enter into contracts, grants, or cooperative agreements, for periods not to exceed five years, to carry out research within the BOR.

#### **N. U.S. Fish and Wildlife Service**

The U.S. Fish and Wildlife Service (USFWS), working with others, is responsible for conserving, protecting, and enhancing fish, wildlife, plants and their habitats for the continuing benefit of the American people through federal programs related to migratory birds, endangered species, interjurisdictional fish and marine mammals, inland sport fisheries, and the National Wildlife Refuge System. In

accordance with 16 U.S.C. § 661, 16 U.S.C. § 742(f), and 16 U.S.C. § 753(a), the USFWS is authorized to cooperate with other agencies to assist in providing research, technical assistance, and education.

#### **O. U.S. Geological Survey**

The U.S. Geological Survey (USGS) serves the Nation by providing reliable scientific information to describe and understand the Earth, minimize the loss of life and property from natural disasters, manage water, biological, energy, and mineral resources, and enhance and protect our quality of life. USGS authority to enter into this MOU is pursuant to Public Law 99-591 that bestows permanent authority on the USGS to “prosecute projects in cooperation with other agencies, Federal, state, and private” (43 U.S.C. § 36(c)) and the USGS Organic Act of March 3, 1879, as amended (43 U.S.C. § 31 et seq.)

### **ARTICLE V. CESU COUNCIL**

#### **A. Council Membership**

This MOU hereby continues the organization of the CESU Council (Council), consisting of representatives from each of the following agencies:

- National Aeronautics and Space Administration
- Agricultural Research Service
- Farm Service Agency
- Natural Resources Conservation Service
- U.S. Forest Service
- National Oceanic and Atmospheric Administration
- Office of the Assistant Secretary of Defense for Energy, Installations, and Environment
- U.S. Army Corps of Engineers–Civil Works
- Bureau of Indian Affairs
- Bureau of Land Management
- Bureau of Ocean Energy Management
- National Park Service
- U.S. Bureau of Reclamation
- U.S. Fish and Wildlife Service
- U.S. Geological Survey

Additional federal agencies may join the CESU Network in accordance with the terms and conditions described below.

#### **B. Council Roles and Responsibilities**

The CESU Council has the following roles and responsibilities:

1. Serve as the official liaison between the CESU Network and the Council members’ individual agencies.

2. Establish, maintain, and revise CESU Network policies, plans, systems, guidelines, standard operating procedures, and related business practices.
3. Approve the addition of new federal agencies into the CESU Network.
4. Select host universities for new CESUs, evaluate existing CESUs, and approve renewal of CESUs and CESU Agreements.
5. Develop and support CESU Network initiatives.
6. Appoint and evaluate the CESU national coordinator.
7. Form Working Groups to assist the CESU Council, as necessary.
8. Conduct additional activities appropriate to the Council.

### **C. Working Groups**

The Council may establish Working Groups, as needed, to plan, coordinate, facilitate, and inform the implementation of actions developed by the Council, within existing authority, policy review, and budgets. Working Groups may be formed or dissolved as needed, at the discretion of the Council. Working Group members may be drawn from the Council or CESU Network partners, as appropriate. Each Working Group shall include a Council member or Council staff as chair or co-chair. Working Groups will report regularly to the Council on their deliberations.

## **ARTICLE VI. FEDERAL AGENCY PARTICIPATION**

### **A. Federal Agency Roles and Responsibilities**

All federal agencies agree to execute the following actions:

1. Participate in at least one CESU.
2. Assign agency representatives to serve as primary and alternate members on the CESU Council.
3. Regularly attend and actively participate in Council meetings, discussions, decisions, votes, and other official business pertaining to the CESU Network.
4. Provide support for the CESU Network within the missions, authorities, and available resources of their respective federal agencies.
5. Review, update, and approve agency-specific administrative procedures and guidelines for the CESU Network.
6. Provide technical assistance to partners in individual CESUs as requested, available, and appropriate.
7. Facilitate interagency agreements, when necessary, to allow full access to the resources of the CESU Network for all participating agencies.
8. Encourage active participation by designated agency technical and administrative representatives in CESU partner meetings, correspondence, and other activities in accordance with the roles and responsibilities outlined in individual CESU multi-party five-year agreements.

### **B. Admission and Withdrawal from the CESU Network**

1. Admission to the CESU Network. The CESU Council approves admission of new federal agencies to the CESU Network upon concurrence of all member agencies. Federal agencies wishing to join the CESU Network shall request admission in writing to the CESU Council. Upon approval, an amendment adding the federal agency to the Network is executed and incorporated in this MOU. Upon admission to the CESU Network, the federal agency is then committed to join at least one CESU.
2. Withdrawal from the CESU Network. Any federal agency may terminate its participation in the CESU Network under this MOU by delivery of sixty (60) days advance written notice to the CESU Council. Termination by a federal agency of its participation in the CESU Network under this MOU will not affect any ongoing project under an existing CESU Agreement to which it is a party.

## **ARTICLE VII. TERM OF AGREEMENT**

### **A. Effective Date**

1. This MOU is effective upon the date of the second signature and expires no later than six (6) years from the date of the second signature, at which time it shall be subject to review, renewal, or expiration.

Note: For the U.S. Forest Service, the effective term of this MOU shall not exceed five (5) years from the date of the U.S. Forest Service signature.

2. This MOU continues the CESU Network and supersedes and replaces the previous MOU that was in effect from 23 May 2011 – 22 May 2017.

### **B. Modifications**

All modifications to this MOU shall be made in writing and must have concurrence of all member agencies. Modifications shall be executed as official amendments to be incorporated into the MOU and must be signed and dated by all affected parties.

## **ARTICLE VIII. GENERAL AND SPECIAL PROVISIONS**

It is mutually agreed and understood by and among the participating federal agencies that:

### **A. Non-Fund Obligating Document**

This MOU is neither a fiscal nor a funds-obligation document. Any activity involving reimbursement or contribution of funds between the parties to this MOU will be handled in accordance with applicable laws, regulations, and procedures including those for federal procurement, assistance, and printing. Such activities

will be outlined in separate agreements that shall be made in writing by representatives of the parties and shall be independently authorized by appropriate statutory authority. This MOU does not provide such authority.

**B. No Member of Congress to Benefit**

Pursuant to 41 U.S.C. 22, no member of Congress shall be admitted to any share or part of this MOU, or any benefits that may arise therefrom.

**C. Participation in Similar Activities/Non-Exclusive Agreement**

This MOU in no way restricts any signatory from entering into similar agreements, or participating in similar activities or arrangements, with other public or private agencies, organizations, and individuals. This includes separate cooperative agreements with universities participating in the CESU Network.

**D. Obligation of Funding or Resources**

Nothing in this MOU shall be construed as obligating agencies to expend funds or to provide resources or be involved in any obligation for future payment of money or provision of resources.

**E. Non-Discrimination**

All activities pursuant to this MOU shall be in compliance with the requirements of Executive Order 11246, as amended; Title VI of the Civil Rights Act of 1964, as amended, (78 Stat. 252; 42 U.S.C. §§ 2000d et seq.); Title V, Section 504 of the Rehabilitation Act of 1973, as amended, (87 Stat. 394; 29 U.S.C. § 794); the Age Discrimination Act of 1975 (89 Stat. 728; 42 U.S.C. §§ 6101 et seq.); and with all other federal laws and regulations prohibiting discrimination on grounds of race, color, sexual orientation, national origin, disabilities, religion, age, or sex.

**F. Conduct of Activities**

The agencies shall handle their own activities and use their own resources, including the expenditure of their own funds, in pursuing the objectives enumerated in this MOU. In implementing this MOU, each agency will be operating under its own laws, regulations, and policies, subject to the availability of appropriated funds.

**ARTICLE IX. AUTHORIZING SIGNATURES**

IN WITNESS WHEREOF, the parties hereto have entered into this MOU as evidenced by their signatures below:

**ARTICLE IX. AUTHORIZING SIGNATURES (continued)**

**A. NATIONAL AERONAUTICS AND SPACE ADMINISTRATION**

*Denise Thaller*

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Denise R. Thaller  
Director  
Environmental Management Division (EMD)

4/10/2020

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Date

**ARTICLE IX. AUTHORIZING SIGNATURES (continued)**

**B. U.S. DEPARTMENT OF AGRICULTURE  
Agricultural Research Service**

**RICHARD  
KIMBALL**

Digitally signed by RICHARD KIMBALL  
DN: c=US, o=U.S. Government,  
ou=Department of Agriculture, cn=RICHARD  
KIMBALL,  
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Richard Kimball

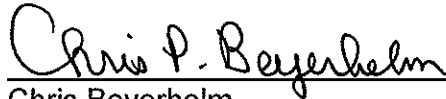
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Date

Authorized Departmental Officer

ARTICLE IX. AUTHORIZING SIGNATURES (continued)

C. U.S. DEPARTMENT OF AGRICULTURE  
Farm Service Agency



Chris Beyerhelm  
Acting Administrator and Associate Administrator  
for Operations and Management

5/2/2017  
Date



**ARTICLE IX. AUTHORIZING SIGNATURES (continued)**

**D. U.S. DEPARTMENT OF AGRICULTURE  
Natural Resources Conservation Service**

**JEFFREY MACHELSKI** Digitally signed by JEFFREY  
MACHELSKI  
Date: 2018.07.03 17:22:09 -04'00'

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Thomas W. Christensen  
Associate Chief of Operations

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Date

ARTICLE IX. AUTHORIZING SIGNATURES (continued)

E. U.S. DEPARTMENT OF AGRICULTURE  
U.S. Forest Service

  
\_\_\_\_\_  
Tony Tooke  
Chief

02/17/2018  
Date

The authority and format of this instrument have been reviewed and approved for signature.

*Kimberly C. Southerland*  
\_\_\_\_\_  
Kimberly Southerland  
U.S. Forest Service (18 MU 11132565 114)  
Grants & Agreements Specialist

01/30/2018  
Date

ARTICLE IX. AUTHORIZING SIGNATURES (continued)

F. U.S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration

A handwritten signature in black ink, appearing to read "Ben Friedman", is written over a horizontal line.

Benjamin Friedman  
Acting NOAA Administrator and Under Secretary  
for Oceans and Atmosphere

MAY 23 2017

\_\_\_\_\_  
Date

ARTICLE IX. AUTHORIZING SIGNATURES (continued)

G. U.S. DEPARTMENT OF DEFENSE  
Office of the Assistant Secretary of Defense for Energy, Installations,  
and Environment



\_\_\_\_\_  
Lucian Niemeyer  
Assistant Secretary of Defense for  
Energy, Installations, and Environment

MARCH 16, 2018  
Date

ARTICLE IX. AUTHORIZING SIGNATURES (continued)

H. U.S. DEPARTMENT OF DEFENSE  
U.S. Army Corps of Engineers – Civil Works



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James C. Dalton  
Director of Civil Works

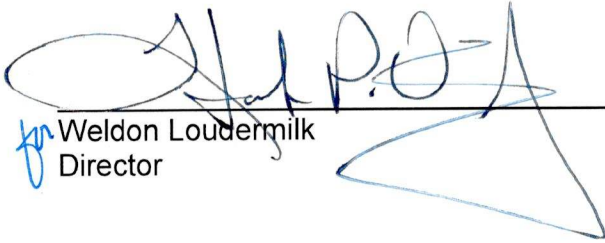
25 Jul 08

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Date

ARTICLE IX. AUTHORIZING SIGNATURES (continued)

I. U.S. DEPARTMENT OF THE INTERIOR  
Bureau of Indian Affairs



Weldon Loudermilk  
Director

6/14/2017  
Date

**ARTICLE IX. AUTHORIZING SIGNATURES (continued)**

**J. U.S. DEPARTMENT OF THE INTERIOR  
Bureau of Land Management**



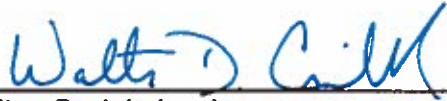
\_\_\_\_\_  
Brian Steed  
Deputy Director of Programs and Policy



\_\_\_\_\_  
Date

**ARTICLE IX. AUTHORIZING SIGNATURES (continued)**

**K. U.S. DEPARTMENT OF THE INTERIOR  
Bureau of Ocean Energy Management**



\_\_\_\_\_  
Walter Cruickshank  
Acting Director

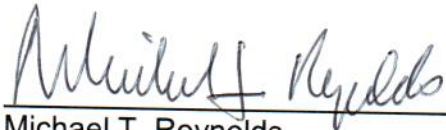
8-24-2018

Date



**ARTICLE IX. AUTHORIZING SIGNATURES (continued)**

**L. U.S. DEPARTMENT OF THE INTERIOR  
National Park Service**

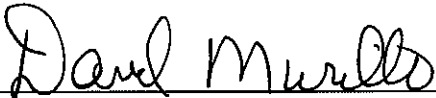


Michael T. Reynolds  
Acting Director

6/16/17  
Date

**ARTICLE IX. AUTHORIZING SIGNATURES (continued)**

**M. U.S. DEPARTMENT OF THE INTERIOR  
U.S. Bureau of Reclamation**

  
\_\_\_\_\_  
David Murillo  
Acting Commissioner

4-18-2017  
Date

**ARTICLE IX. AUTHORIZING SIGNATURES (continued)**

**N. U.S. DEPARTMENT OF THE INTERIOR  
U.S. Fish and Wildlife Service**



Acting Director

7/2/2017  
Date

**ARTICLE IX. AUTHORIZING SIGNATURES {continued}**

**0. U.S. DEPARTMENT OF THE INTERIOR  
U.S. Geological Survey**

  
\_\_\_\_\_  
William Werkheiser  
Acting Director

6/20/17  
Date

**AMENDMENT TO MEMORANDUM OF UNDERSTANDING**

continuation of the

**COOPERATIVE ECOSYSTEM STUDIES UNITS NETWORK**

This Amendment to the CESU Network Memorandum of Understanding (MOU) is executed in accordance with Article V. Section B.3., Article VI. Section B.1., and Article VII. Section B. With the exception of the changes below, all terms and conditions of the MOU apply to this Amendment, and this Amendment is hereby made part of the MOU.

**ARTICLE IV. AUTHORITIES**

This MOU is entered into by the following agency consistent with the mission and relevant authorities described below:

**P. Defense POW/MIA Accounting Agency**

The Defense POW/MIA Accounting Agency's (DPAA) mission is to provide the fullest possible accounting for our missing personnel from past conflicts to their families and the nation. DPAA is responsible for searching for missing personnel from World War II, the Korean War, the Vietnam War, the Cold War, the Gulf Wars, and other recent conflicts. DPAA relies on extensive historical and archival research and analysis to determine where it should conduct field investigations and recovery efforts. DPAA is the DoD lead agency for coordinating with other USG agencies, foreign governments through the Department of State, academic institutions and other NGOs on all matters related to the accounting missions so it can gain access to loss sites and/or obtain information that leads to the recovery of artifacts, missing personnel, or their remains. DPAA conducts historical research in U.S. and international archives, analyzes data, creates and maintains comprehensive records (including the official list of unaccounted-for by conflict), interviews witnesses, investigates potential loss sites and engages in recovery efforts worldwide.

In accordance with DoDD 5110.10, DPAA is authorized to enter into agreements with Military Departments or other USG entities as required for the effective performance of the DoD Past Conflict Personnel Accounting Program. DPAA is authorized to enter into cooperative agreement(s) with non-federal entities for purposes related to support of DPAA activities, pursuant to 10 U.S.C. § 1501a and in accordance with DoDD 3210.06. Notwithstanding 10 U.S.C. § 2304(k), DPAA may enter into such cooperative agreements on a single-source basis, pursuant to 10 U.S.C. § 2304(c)(5). In accordance with the aforementioned authorities, DPAA is authorized to enter into this interagency MOU and individual CESU Agreements in furtherance of collaborative research, technical assistance, and education.

**ARTICLE V. CESU COUNCIL**

A.1. The Defense POW/MIA Accounting Agency is now a full member of the CESU Council. DPAA is now authorized to send a voting/formal representative to Council meetings, and to participate in all actions of the Council.

**ARTICLE VII. TERM OF AGREEMENT**

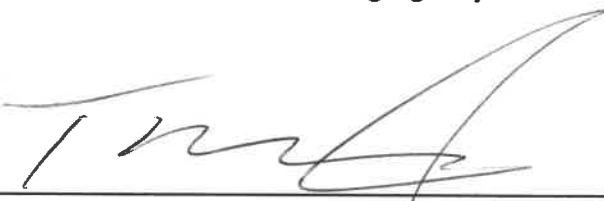
A.1. The effective date of the CESU Network MOU is 02 May 2017.

A.3. The effective date of this Amendment to CESU Network MOU shall be determined from the date of the last signature.

**ARTICLE IX. AUTHORIZING SIGNATURES**

IN WITNESS WHEREOF, the party hereto has entered into this MOU with this Amendment as evidenced by their signatures below.

**Defense POW/MIA Accounting Agency**



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Dr. Thomas D. Holland  
Director, DPAA Partnerships and Innovation  
Science Advisor to the Director, DPAA

15 MAR 19

Date

**AMENDMENT TO MEMORANDUM OF UNDERSTANDING**

**continuation of the**

**COOPERATIVE ECOSYSTEM STUDIES UNITS NETWORK**

This Amendment to the CESU Network Memorandum of Understanding (MOU) is executed in accordance with Article V. Section B.3., Article VI. Section B.1., and Article VII. Section B. Except for the changes listed below, all terms and conditions of the MOU apply to this Amendment and this Amendment is hereby made part of the MOU.

**ARTICLE IV. AUTHORITIES**

This MOU is entered into by the following agency consistent with the mission and relevant authorities described below:

**Q. Western Area Power Administration, U.S. Department of Energy**

Congress established the Western Area Power Administration (WAPA) in 1977. WAPA is a Power Marketing Administration within the United States Department of Energy. WAPA's mission is to safely provide reliable, cost-based hydropower and transmission to its customers and the communities it serves, which includes approximately 700 customers who in turn provide power to about 40 million Americans across 15 western states. Specifically, WAPA markets over 10,000 megawatts of power from 57 dams, operates and maintains over 17,000 miles of transmission lines with associated infrastructure (e.g., 291 transformers, 324 substations, 489 communication sites, and 661 buildings), access roads, and rights-of-way, and facilitates renewable projects with a nexus within its geographic footprint via independent borrowing authority. WAPA undertakes design, engineering, construction, operation, maintenance, education, interpretation, inventory, monitoring, ecological restoration, and biological and cultural resource stewardship activities in the context of fulfilling its mission to market and deliver clean, renewable, reliable, cost-based Federal hydroelectric power and related services. WAPA's statutory authority to sign this MOU is provided in Public Law 93-91, U.S. Department of Energy Organization Act (i.e., Section 646; 42 U.S.C. § 7256).

**ARTICLE V. CESU COUNCIL**

A.2. The Western Area Power Administration is hereby included as a full member of the CESU Council (Council), authorized to send a voting/formal representative to Council meetings and to participate in all actions of the Council.

**ARTICLE VII. TERM OF AGREEMENT**

A.1. The effective date of the CESU Network MOU is 02 May 2017.

A.3. The effective date of this Amendment # 21-01 to the CESU Network MOU is determined from the date of the signature below.

**ARTICLE IX. AUTHORIZING SIGNATURE**

IN WITNESS WHEREOF, the party hereto has entered the CESU Network MOU with this Amendment as evidenced by their signature below.

**Q. Western Area Power Administration**



**Tracey A. LeBeau**  
Administrator and Chief Executive Officer (Interim)  
Department of Energy

March 31, 2021  
Date



**AMENDMENT TO MEMORANDUM OF UNDERSTANDING**

**continuation of the**

**COOPERATIVE ECOSYSTEM STUDIES UNITS NETWORK**

This Amendment to the CESU Network Memorandum of Understanding (MOU) is executed in accordance with Article V. Section B.3., Article VI. Section B.1., and Article VII. Section B. With the exception of the changes below, all terms and conditions of the MOU apply to this Amendment, and this Amendment is hereby made part of the MOU.

**ARTICLE IV. AUTHORITIES**

This MOU is entered into by the following agency consistent with the mission and relevant authorities described below:

**R. Office of Native Hawaiian Relations, U.S. Department of the Interior**

The Office of Native Hawaiian Relations (ONHR) was authorized by Congress and established in 2004 pursuant to P.L. 108-199 § 148. ONHR serves to discharge the Secretary of the Interior's responsibilities with respect to the Native Hawaiian Community. With offices in Honolulu, Hawai'i, and Washington, D.C., ONHR addresses the interests of over 600,000 Native Hawaiians across the United States and advances the Department of the Interior's responsibilities and priorities for resource preservation and coordination with the Native Hawaiian Community within the State of Hawai'i. Through participation in the CESU Network, ONHR envisions conducting collaborative and interdisciplinary applied projects including those related to natural resource protection, historic preservation, biocultural and socio-cultural research, and technical assistance for the Native Hawaiian Community. ONHR has authority to enter into agreements under Section 80002 of the Inflation Reduction Act (P.L. 117-169).

**ARTICLE V. CESU COUNCIL**

A.3. The Office of Native Hawaiian Relations (ONHR) is now a full member of the CESU Council. ONHR is now authorized to send a voting/formal representative to Council meetings, and to participate in all actions of the Council.

**ARTICLE VII. TERM OF AGREEMENT**

A.1. The effective date of the CESU Network MOU is 02 May 2017.

A.3. The effective date of this Amendment # 23-01 to CESU Network MOU shall be determined from the date of the last signature.

**ARTICLE IX. AUTHORIZING SIGNATURES**

IN WITNESS WHEREOF, the party hereto has entered into this MOU with this Amendment as evidenced by their signatures attached below.

**R. Office of Native Hawaiian Relations**

*Ka'i'ini Kaloi*  
Ka'i'ini Kaloi  
Director  
Office of Native Hawaiian Relations  
U.S. Department of the Interior

March 6, 2023  
Date

**AMENDMENT TO MEMORANDUM OF UNDERSTANDING**

**continuation of the**

**COOPERATIVE ECOSYSTEM STUDIES UNITS NETWORK**

This Amendment to the CESU Network Memorandum of Understanding (MOU) is executed in accordance with Article V. Section B.3., Article VI. Section B.1., and Article VII. Section B. With the exception of the changes below, all terms and conditions of the MOU apply to this Amendment, and this Amendment is hereby made part of the MOU.

**ARTICLE IV. AUTHORITIES**

This MOU is entered into by the following agency consistent with the mission and relevant authorities described below:

**S. Bureau of Safety and Environmental Enforcement, U.S. Department of the Interior**

The Bureau of Safety and Environmental Enforcement (BSEE) was established in 2011 pursuant to S.O. 3299. BSEE is responsible for promoting safety, protection of the environment, and conservation of resources offshore through vigorous regulatory oversight and enforcement of offshore facilities engaged in energy exploration, development, and production operations on the Outer Continental Shelf. Department of the Interior Departmental Manual chapters were recently updated and posted to the Electronic Library of the Interior Policies on September 14, 2022, which state:

*"The Director, Bureau of Safety and Environmental Enforcement (BSEE), is delegated, through the Assistant Secretary – Land and Minerals Management (ASLM), the Secretary of the Interior's (Secretary) authority to oversee and regulate offshore operations and perform all related functions, including the following:*

*A. Under the Outer Continental Shelf (OCS) Lands Act, as amended (43 U.S.C. §§ 1331 et seq.)[2], to conserve OCS mineral resources; to oversee offshore oil, natural gas, sulphur, and other energy and mineral exploration, development, and production; to oversee long-term carbon sequestration; to oversee production, transportation, or transmission of energy on OCS lands from sources other than oil and gas, such as renewable energy, or the use of OCS facilities for energy-related or other authorized marine-related purposes, including oversight of personnel safety; and to enforce safety and environmental standards related to those operations. The Director's oversight authority includes permitting, research, inspections for safety and environmental compliance, the implementation of offshore regulatory programs related to field operations, and training of inspectors. The Director's enforcement authority includes the authority to investigate,*

*summon witnesses, require the production of evidence, assess civil penalties, and cancel or suspend activities.*

*B. Under the Federal Oil and Gas Royalty Management Act of 1982, as amended (30 U.S.C. §§ 1701 et seq.), the authority to ensure production accountability and regulatory compliance. The Director’s authority includes the authority to assess civil penalties.*

*C. Under sections 2(b)(3), 2(d)(3), and 2(c)(3) of Executive Order 12777, as amended, that delegate the authority under sections 311(j)(1)(C), 311(j)(5), and 311(j)(6)(A) of the Federal Water Pollution Control Act of October 18, 1972 (33 U.S.C. §§ 1321 et seq.) as amended by the Oil Pollution Act of 1990, including the authority to issue regulations: requiring the owners or operators of offshore facilities to prepare and submit response plans, establishing requirements for spill prevention and response equipment, and providing for inspections of such equipment.*

*D. Under 296 DM 2.3A, the authority to take action on requests from On-Scene Coordinators or, when the Regional Response Team is activated, from the designated representatives of the Office of Environmental Policy and Compliance for assistance responding to oil spills.*

*E. Under 318 DM, the authority to issue Federal Register notices that pertain to the responsibilities and functions assigned to BSEE. All proposed and final rules are issued by ASLM.”*

Through participation in the CESU Network, BSEE envisions conducting collaborative and interdisciplinary scientific and technological projects applied to safety, environmental protection, energy, biological, chemical, geological, geophysical, cultural, environmental, oceanographical, meteorological, and engineering disciplines. BSEE has authority to enter into agreements under the Outer Continental Shelf (OCS) Lands Act, as amended (43 U.S.C. §§ 1331 et seq.).

#### **ARTICLE V. CESU COUNCIL**

A.4. The Bureau of Safety and Environmental Enforcement (BSEE) is now a full member of the CESU Council. BSEE is now authorized to send a voting/formal representative to Council meetings, and to participate in all actions of the Council.

#### **ARTICLE VII. TERM OF AGREEMENT**

A.1. The effective date of the CESU Network MOU is 02 May 2017.

A.3. The effective date of this Amendment # 23-02 to CESU Network MOU shall be determined from the date of the last signature.

**ARTICLE IX. AUTHORIZING SIGNATURES**

IN WITNESS WHEREOF, the party hereto has entered into this MOU with this Amendment as evidenced by their signatures attached below.

**S. Bureau of Safety and Environmental Enforcement**

**PAUL HUANG** Digitally signed by PAUL  
HUANG  
Date: 2023.04.21 11:09:35  
-04'00'

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Paul Huang  
Deputy Director  
Bureau of Safety and Environmental Enforcement