

MEMORANDUM OF UNDERSTANDING  
BETWEEN THE  
U.S. ARMY CORPS OF ENGINEERS  
OF THE  
U.S. DEPARTMENT OF THE ARMY  
THE  
U.S. GEOLOGICAL SURVEY  
OF THE  
U.S. DEPARTMENT OF THE INTERIOR  
AND THE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
OF THE  
U.S. DEPARTMENT OF COMMERCE  
THE  
FEDERAL EMERGENCY MANAGEMENT AGENCY  
OF THE  
U.S. DEPARTMENT OF HOMELAND SECURITY

**Collaborative Science, Services and Tools to Support  
Integrated and Adaptive Water Resources Management**

**Article I. Background.**

Federal agencies are engaged actively in water resources services, planning, development, operations, management and information gathering, analysis and communications. The U.S. Army Corps of Engineers (hereinafter referred to as USACE) of the U.S. Department of the Army, the U.S. Geological Survey of the U.S. Department of the Interior (hereinafter referred to as USGS), the National Oceanic and Atmospheric Administration of the U.S. Department of Commerce (hereinafter referred to as NOAA), and the Federal Emergency Management Agency (hereinafter referred to as FEMA) together referred to as the Parties, have related and complimentary responsibilities in a number of program areas. It is in the national interest that such Federal programs be closely coordinated and mutually supportive to efficiently and effectively meet the growing demand for water resources data, information and services.

The mission of the USACE is to provide vital public engineering services in peace and war to strengthen our Nation's security, energize the economy, and reduce risks from disasters. These engineering services include water resource planning, development and management activities involving flood risk management, navigation, ecosystem restoration, emergency preparedness and response, multi-purpose water resources, infrastructure, and environmental stewardship.

The mission of the USGS is to provide the Nation with reliable, impartial information to describe and understand the Earth. This information is used to minimize loss of life and property from natural disasters; manage water, biological, energy, and mineral resources; enhance and protect the quality of life; and contribute to wise economic and physical development.

The mission of 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. Critical elements of this mission include monitoring and analyzing our water resources and issuing predictions and warnings for all hydroclimatic conditions from floods to droughts.

The mission of FEMA is to support citizens and first responders, to ensure that as a nation we work together to build, sustain and improve our capability to prepare for, protect against, respond to, recover from and mitigate all hazards.

With complementary mission elements centered on water resources, the Parties agree with the widely held view that water resources are one of the most significant challenges facing societies and governments in the 21st century. Managers and decision makers in all sectors of water resources require new and more integrated information and services to adapt to uncertainty, climate and land-use changes, and increasing demand on limited resources. To meet this challenge, an innovative partnership of Federal agencies with complementary operational missions in water science, observation, prediction and management has been developed. This collaborative partnership currently consists of the Parties; however, it will grow to include other agencies. The partnership will address the goals of Integrated Water Resources Science and Services (IWRSS) initiative and the objective of the Building Strong Collaborative Relationship for a Sustainable Water Resources Future initiative to build a Federal Support Toolbox for Integrated Water Resources Management.

#### **Article II. Purpose.**

The purpose of this Memorandum of Understanding (MOU) is to document the commitment of the Parties and formalize this interagency partnership to, better align agency programs within current authorities, enhance communications and the exchange and availability of information, and to establish opportunities for joint projects, programs, facilities, and other collaborative science, services and tools to support integrative and adaptive water resources management. This MOU is designed to facilitate the Parties' scientists, engineers, and managers to work together, achieve mutual goals and leverage resources for sharing information and planning, developing, and implementing science and services in support of integrative and adaptive water resources management. It is also intended to serve as the foundation and mechanism for other Federal agencies and partners to join this collaborative partnership in the future to further address our Nation's water resources information and knowledge capacity needs.

#### **Article III. Scope.**

This MOU serves as an umbrella agreement that sets forth the general terms and conditions under which the Parties will coordinate and cooperate in activities to improve water resource science and services. Cooperative activities in these fields may include, but are not limited to, project plan development, exchange of technical information, tools and services, joint studies, research and development activities of mutual interest, joint educational and communications activities to advance the understanding of water resources science and services, and exchange visits and work details of individuals sponsored by all Parties who are engaged in water resources projects of mutual interest.

#### **Article IV. Responsibilities.**

The Principals for this MOU are the Assistant Secretary of the Army (Civil Works), the Director,

USGS, the Department of Commerce Under Secretary for Oceans and Atmosphere (NOAA) and the Deputy Administrator for the Federal Emergency Management Agency (FEMA).

The Parties agree to provide membership and participate in a governance structure for the MOU that includes:

- Executive Oversight Committee comprised of the principals or their designees, meeting twice annually or as necessary to discuss water resources priorities and common objectives and goals. The Executive Oversight Committee will designate a Chair Person, which will be periodically rotated among the Parties.
- Project Management Teams, comprised of national/regional chiefs and program leads, serving as the primary planning and decision-making body.
- Technical Working Groups focused on specific topics and project demonstration and evaluation.

Areas of mutual interest to be pursued within the context of this partnership will be developed, documented and implemented by the Parties through subsequent charters, which address specific topics and projects for collaboration. Supporting agreements will include, but are not limited to, charters for IWRSS and the Federal Support Toolbox, etc. Within this context, the Parties agree to:

- Develop and implement highly collaborative and integrative capabilities to protect lives and property, and support integrated and adaptive water resources management. The capabilities include:
  - Interoperable systems, seamless data exchange and synchronization, and enhanced geospatial information and visualization to establish extensive situational awareness within a common operating picture.
  - Enhanced water resource information and capabilities including:
    - Historical and real-time data
    - High resolution water resource forecasts and flood inundation maps
    - Accurate long term data on flood hazard and flood risk
    - Data and modeling applications and other software tools
    - Contextual and background information about authorities, policies, and programs grounding science and engineering efforts of respective agencies, especially regarding water and related resources
  - National support center for transitioning science and technology advancements into operations and to generate a new seamless suite of water resources information and support.
- Participate in joint stakeholder outreach, educational efforts and evaluation activities;
- Cooperate in mutual areas of interest and share data, information, and findings of mutual concern;
- Develop individual agreements between the Parties for specific work when mutually beneficial and agreeable;
- Regularly provide updates on program activities, technology application, development and related work pertaining to cooperative activities pursued under this MOU, and
- Identify areas of information gaps, redundancies, conflicts, and opportunities for joint project planning, program alignment, and problem solving.

## **Article V. Financial Arrangements.**

This MOU is neither a fiscal nor a funds obligation document, and no funds are being transferred hereunder. Any activities involving reimbursement or contribution of funds and services between the parties of this MOU will be handled in accordance with applicable laws, regulations, and procedures. Such activities will be documented in separate agreements with specific projects and the funding authorities for and funding transfers between the parties spelled out. This MOU does not establish authority for noncompetitive award among the Parties for any contract or other agreement.

This MOU defines in general terms the basis upon which the Parties will cooperate and, as such, does not constitute a financial obligation to serve as a basis for expenditures. Expenditures of funds, human resources, equipment, supplies, facilities, training, public information, and expertise will be provided by each signatory agency to the extent that its participation is required and resources are available.

Any exchange of funds, property or services will be supported by approved Interagency Agreements between designated representatives of the Principals.

Updates on program activities, technology application, development and related work pertaining to cooperative activities pursued under this MOU will occur through written correspondence, regular coordination meetings, and other mechanisms.

This MOU in no way restricts the Parties from participating, subject to applicable law, in similar activities or arrangements with other public or private agencies, organizations, or individuals intended to enhance the objectives of this partnership.

This MOU does not obligate the Parties to expend appropriations on any particular project or purpose or to enter into any agreements, contracts, or other obligations, even if funds are available.

## **Article VI. Effective Date, Term, Amendment, and Early Termination.**

**Effective date.** This MOU will take effect upon the date of the last signature of the Parties.

**Modification.** This MOU may be amended including the inclusion of additional agencies and partners, at any time during the term by mutual written agreement of the Parties.

**Term and Early Withdrawal.** This MOU will remain in effect for a period of five (5) years from the Effective Date. Any Party may terminate its participation in this MOU by providing written notice and explanation to the other Parties at least 90 calendar days in advance of the effective date of termination. This MOU will remain in full force and effect for the remaining Parties unless and until they provide their own written notice and explanation of early termination as herein provided.

**Renewal.** This MOU may be renewed for successive five-year terms by mutual written consent of the Parties, subject to their respective clearance requirements.

**Review.** This MOU shall be reviewed annually by the Parties.

## Article VII. Authorities.

To the extent the Parties enter into implementing Interagency Agreements pursuant to Article IV, the Parties may rely upon the following authorities and any other that might be applicable.

The authorities of the USACE to enter into Interagency Agreements pursuant to this MOU include, *inter alia*:

- Chiefs of Branches; assignments; duties (10 U.S.C. 3036)
- Economy in Government Act (31 U.S.C. § 1535)
- Interservice and Intragovernmental Support (DoD Instruction 4000.19); and
- Memorandum for the Heads of Executive Departments and Agencies for Transparency and Open Government to *promote public trust* through *transparency, public participation, and collaboration* in the spirit of having openness strengthen our democracy and promote efficiency and effectiveness in government

[http://www.whitehouse.gov/sites/default/files/omb/assets/memoranda\\_2010/m10-06.pdf](http://www.whitehouse.gov/sites/default/files/omb/assets/memoranda_2010/m10-06.pdf)

The authorities of the Assistant Secretary of the Army, Civil works to enter into Interagency Agreements pursuant to this MOU included, *inter alia*:

- Assistant Secretaries of the Army (10 U.S.C. 3016)

The authorities of the USGS to enter into Interagency Agreements pursuant to this MOU include, *inter alia*:

- 43 U.S.C. § 36c, which authorizes the USGS to "prosecute projects in cooperation with other agencies, Federal, State or private"; and
- The USGS Organic Act of March 3, 1879, codified as amended at 43 U.S.C. §§ 31 et seq.

The authorities of NOAA to enter Interagency Agreements pursuant to this MOU include, *inter alia*:

- 33 U.S.C. § 883a, which authorizes NOAA to, among other activities, enable the safe navigation of commerce by providing charts and related information and to provide data for scientific and engineering purposes and other commercial and industrial needs through hydrographic and other studies; and
- 15 U.S.C. § 313 directs that the Secretary of Commerce shall have charge of the forecasting of weather, the issue of storm warnings, the display of weather and flood signals for the benefit of agriculture, commerce, and navigation, the gauging and reporting of rivers, the maintenance and operation of seacoast telegraph lines and the collection and transmission of marine intelligence for the benefit of commerce and navigation, the reporting of temperature and rain-fall conditions for the cotton interests, the display of frost and cold-wave signals, the distribution of meteorological information in the interests of agriculture and commerce, and the taking of such meteorological observations as may be necessary to establish and record the climatic conditions of the United States, or as are essential for the proper execution of the foregoing duties.

The authorities of the FEMA to enter into Interagency Agreements pursuant to this MOU include, *inter alia*:

- The Post-Katrina Emergency Management Reform Act of 2006, as amended, 6 U.S.C. 314

- The Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. 5121 et seq.
- The National Flood Insurance Act of 1968, as amended, 42 U.S.C. 4001 et seq.

#### **Article VIII. Publications and Release of Information.**

Publications documenting cooperative efforts may be prepared by each individual party, or jointly, provided that all parties have an opportunity to review manuscripts prior to publication. To the extent possible, decisions involving authorship, review of reports, and other conditions and circumstances will be addressed during the preparation of Interagency Agreements referencing this MOU. Should differences of viewpoint occur, an effort should be made toward reconciliation of the differences. However, this shall not prohibit any agency from publishing the data or information provided it assumes sole responsibility and gives appropriate credit to the other agencies. No agency will make editorial changes to the portions of joint documents drafted by another agency without full knowledge and consent of the other party.

The Parties agree that sharing credit is mutually beneficial and will make every effort to assure that appropriate citation and attribution, including the use of official agency visual identifiers, is given for work performed under this MOU.

Publicity and public information products, including news releases, reports, briefing papers, or other information products, are subject to the same terms and conditions as other publications as stated above.

Any commitment of a Party to preserve the confidentiality of information is subject to applicable laws and regulations.

#### **Article IX. Authorized Representatives.**

The Parties warrant and represent that the authorized officials to enter into Interagency Agreements referencing this MOU are identified in agency manuals or in other delegations of authority.

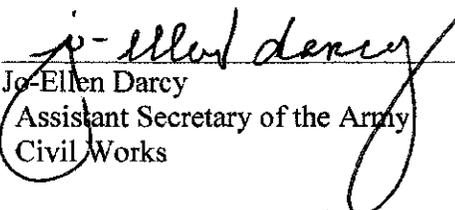
#### **Article X. Adding Parties to this MOU.**

As stated in Articles I, II and VI above, it is the understanding of the Parties that the collaborative partnership formalized by this MOU will likely expand to include additional Federal agencies and partners committed to working together to improve the access to data, information and water resources science, services and support for better integrated and adaptive water resources management. It is the intention of the Parties that this MOU to serve as the foundation for other Federal agencies and partners to join this partnership in the future.

Additional Federal organizations may become parties to this MOU by petitioning the Executive Oversight Committee and signing an amendment to the MOU in accordance with Article VI. The Parties agree to refer requests from third parties to become parties to this MOU to the Executive Oversight Committee.

Article XI. Approval.

For the U.S. Army Corps of Engineers  
Department of the Army

  
\_\_\_\_\_  
Jo-Ellen Darcy  
Assistant Secretary of the Army  
Civil Works

Date: \_\_\_\_\_

For the National Oceanic and Atmospheric  
Administration  
Department of Commerce

\_\_\_\_\_  
Dr. Kathryn D. Sullivan  
Administrator

Date: \_\_\_\_\_

For the U.S. Geological Survey  
Department of the Interior

\_\_\_\_\_  
Dr. Suzette Kimble  
Director

Date: \_\_\_\_\_

For the Federal Emergency Management Agency  
Department of Homeland Security

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Joseph L. Nimmich  
Deputy Administrator

Date: \_\_\_\_\_

Article XI. Approval.

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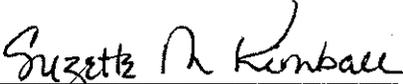
Dr. Kathryn D. Sullivan  
Administrator

Date: \_\_\_\_\_

Date: \_\_\_\_\_

For the U.S. Geological Survey  
Department of the Interior

For the Federal Emergency Management Agency  
Department of Homeland Security

  
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Dr. Suzette M. Kimball  
Director

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Joseph L. Nimmich  
Deputy Administrator

Date: 3/22/2016

Date: \_\_\_\_\_

Article XI. Approval.

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Joseph L. Nimmich  
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For the National Oceanic and Atmospheric  
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Civil Works

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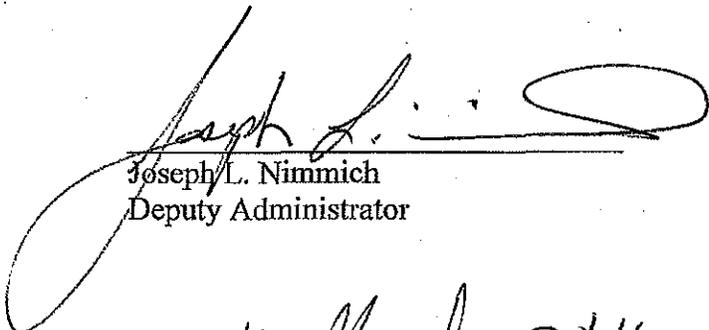
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Date: \_\_\_\_\_

For the U.S. Geological Survey  
Department of the Interior

For the Federal Emergency Management Agency  
Department of Homeland Security

\_\_\_\_\_  
Dr. Suzette Kimble  
Director

  
\_\_\_\_\_  
Joseph L. Nimmich  
Deputy Administrator

Date: \_\_\_\_\_

Date: 13 March 2016