



CHARTER  
of the  
WATER-ENERGY-FOOD NEXUS TASK FORCE  
COMMITTEE ON ENVIRONMENT, NATURAL RESOURCES, AND SUSTAINABILITY  
NATIONAL SCIENCE AND TECHNOLOGY COUNCIL

**A. Official Designation**

The Water-Energy-Food Nexus (Nexus) Task Force is hereby established by action of the National Science and Technology Council (NSTC); Committee on Environment, Natural Resources, and Sustainability (CENRS).

**B. Purpose and Scope**

The purpose of the Nexus Task Force is to advise and assist the CENRS and the NSTC on policies, issues, science and technology developments, research and societal needs, best practices, and challenges related to the nexus and components thereof (e.g., energy-water, water-food, food-energy), including the natural environment.

Current and projected population growth and increased demand for natural resources increase the strain on limited water, energy, and food resources. These stresses are further exacerbated by climate change and resulting changes in quantity, quality, and accessibility of these resources both for human and environmental uses. Because water, energy, and food are inherently interdependent, a nexus approach is needed to understand and manage the complex relationships among these sectors and to develop smart adaptation and mitigation measures that are driven by societal need to ensure developments in one sector do not negatively impact the others. The scope of activities under the Nexus Task Force is intended to meet these needs through coordination, planning, and implementation of projects across the Federal agencies related to understanding, modeling, and managing nexus systems.

Due to the cross-disciplinary nature of planned activities and subject matter, the Nexus Task Force will inform and seek advice from both the Committee on Science and the Committee on Technology, and their relevant Subcommittees, as appropriate (e.g. SWAQ, USGCRP, and others), to increase coordination and cooperation.

**C. Functions**

Specifically, the Nexus Task Force will: (1) conduct a census of past, current, and planned Federally funded expenditures and activities related to two or more elements of the energy-water-food nexus; (2) identify knowledge gaps that impede Federal decision-making pertaining

to two or more elements of the energy-water-food nexus; and (3) develop a Federal research and development agenda that outlines specific needs and opportunities for addressing these knowledge gaps.

To accomplish its purpose, the Nexus Task Force may:

1. identify national science and technology research priorities for developing a better understanding of the interconnected nature of the nexus;
2. coordinate among Federal agencies' interdisciplinary research in water, energy, and food systems and at the intersection of these sectors, including the natural environment, particularly in light of a changing climate and based on societal need;
3. monitor developments in technology and information systems that could improve data collection, modeling, monitoring, and management capabilities at the nexus;
4. advance the application of knowledge of the nexus for effective management and sustainable stewardship of natural resources;
5. identify opportunities for promoting international engagement and collaboration on science and technology at the nexus;
6. provide advice and assistance to the CENRS and the NSTC on budget priorities related to Federal S&T spending that address challenges at the nexus in a coordinated manner.

#### **D. Membership**

The following NSTC departments and agencies are represented on the Nexus Task Force:

Department of Agriculture;  
Department of Commerce;  
Department of Defense;  
Department of Energy;  
Department of Health and Human Services;  
Department of Homeland Security;  
Department of Housing and Urban Development;  
Department of the Interior;  
Department of State;  
Department of Transportation;  
Environmental Protection Agency;  
National Aeronautics and Space Administration;  
National Science Foundation;  
U.S. Agency for International Development; and  
Tennessee Valley Authority.

The following components of the Executive Office of the President shall also be represented on the Nexus Task Force:

Council on Environmental Quality;  
National Security Council Staff;  
Office of Management and Budget; and  
Office of Science and Technology Policy (Co-chair).

The Co-Chairs of the CENRS will select and appoint three Agency Nexus Task Force Co-Chairs from among the agency representatives. Cooperating departments and agencies shall include such other Executive organizations, departments, and agencies as the Nexus Task Force Co-



Chairs may designate as appropriate. The Nexus Task Force will also strive to enhance the Federal research and development enterprise by embracing diversity, recognizing that inclusion of a broad range of backgrounds and perspectives is critical to achieving robust intellectual dialogue.

**E. Private-Sector Interface**

The Nexus Task Force may seek advice from the President's Council of Advisors on Science and Technology to secure appropriate private-sector<sup>1</sup> advice, and will recommend to the CENRS and/or the Assistant to the President for Science and Technology the nature of any additional private-sector advice needed to accomplish its mission. The Nexus Task Force may also interact with and receive *ad hoc* advice from various private-sector groups consistent with the Federal Advisory Committee Act.

**F. Termination Date**

Unless renewed by the Co-chairs of the CENRS prior to its expiration, the Nexus Task Force shall terminate no later than February 1, 2017.

**G. Determination**

We hereby determine that the establishment of the Nexus Task Force is in the public interest in connection with the performance of duties imposed on the Executive Branch by law, and that such duties can best be performed through the advice and counsel of such a group.

Approved:



Thomas Burke

Co-Chair of the CENRS, and  
Deputy Assistant Administrator for Research and Development and  
Science Advisor  
Environmental Protection Agency

01/21/2016

Date

<sup>1</sup> The Federal Advisory Committee Act, 5 U.S.C. App., as amended, does not explicitly define "private sector," but the phrase is generally understood to include individuals or entities outside the Federal government such as, but not limited to, the following: non-Federal sources, academia, State, local or Tribal governments, individual citizens, the public, non-governmental organizations, industry associations, international bodies.

Tamara Dickinson

Tamara Dickinson

Co-Chair of the CENRS, and  
Principal Assistant Director for Environment & Energy  
Office of Science and Technology Policy  
Executive Office of the President

1/7/16

Date

Kathryn Sullivan

Kathryn Sullivan

Co-Chair of the CENRS, and  
Under Secretary for Oceans and Atmosphere and  
Administrator of the National Oceanic and Atmospheric Administration  
Department of Commerce

2/1/16

Date