

# Meeting Minutes of the Subcommittee on Disaster Reduction

7 April 2016, 10:00 a.m. to 12:00 p.m., White House Conference Center Lincoln Room

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*Italics indicate absent members. "T" indicate members participating via teleconference.*

## Co-chairs

David Applegate (USGS)  
Margaret Davidson (NOAA)  
Jack Meszaros (OSTP)

## Designated Representatives

**BLM** *Ron McCormick*  
**CDC** *Mollie Mahany*  
**DHS** Mary Ellen Hynes (T)  
**DHS/FEMA** *Roy Wright*  
**DHS/USCG** *Robert Thomas*  
**DOD** *Al Johnson*  
**DOE** *Patricia Hoffman*  
**DOT** *Sheila Duwadi*  
**EOP/OMB** *Michael Clark*  
**EOP/OSTP** Jack Meszaros  
**EPA** Greg Sayles (T)

**FERC** *Marsha Palazzi*  
**HUD** Dana Bres (T)  
**NASA** *Craig Dobson*  
**NGA** *TBD*  
**NGB** *TBD*  
**NIH** Aubrey Miller (T)  
**NIST** Steve Cauffman  
**NOAA** Margaret Davidson (T)  
*Laura Furgione*  
**NPS** *Marcy Rockman*  
**NSF** Greg Anderson

**OPHS** *Estella Jones*  
**State** Fernando Echavarria  
**USACE** *Tony Niles*  
**USAID** Sezin Tokar  
**USDA** *TBD*  
**USFS** *Matt Rollins*  
*Carlos Rodriguez-Franco*  
**USGS** David Applegate  
**USNRC** *Steven West*

## Other Attendees

**DHS** Mitch Erickson (T)  
Dan Marasco  
**DHS/FEMA** Doug Ham  
Jennifer Goldsmith  
Kevin Long (T)  
**EOP/NSC** Amy Rosenband  
**EPA** Brendan Doyle  
**HUD** Kevin Bush (T)  
**NASA** David Green (T)

**NGA** Brian Cameron  
**NIH** April Bennett  
**NOAA** Laura Furgione  
**NSF** David Mendonca (T)  
**OPHS** Tracy MacGill (T)  
**USFS** Mike Cherry  
**USGS** Bill Leith  
Kris Ludwig (T)  
Teresa Stoepler

**USNRC** John Nakoski  
**STPI** Chris Clavin  
Zoe Petropoulos (T)  
**SDR Secretariat**  
Bret Schothorst  
Barbara Haines Parmele (T)

## Agenda

10:00 Welcome, Introductions, and Approval of Minutes  
10:05 Co-chairs Report  
10:30 Roundtable Discussion: President's FY 2017 Budget Request  
11:00 Briefing: Update of 2005 NIBS Mitigation Study  
11:30 Briefing: New USGS Induced Seismicity Hazard Map  
11:55 Close and Next Actions

## Handouts

- April Meeting Agenda
- Draft March Meeting Minutes
- Summary of SDR Task Forces and Working Groups
- Letter to Support SDR in FY 2016

## I. Welcome and Introductions

National Science and Technology Council (NSTC) Subcommittee on Disaster Reduction (SDR) Co-chair David Applegate (USGS) called the April meeting to order at 10:02 a.m. in the White House Conference Center Lincoln Room, and participants introduced themselves.

## II. Report from the Co-chairs and Approval of Minutes

The March monthly meeting minutes draft was approved with no changes.

To start the meeting, Applegate provided a quick rundown summary of the past and ongoing activities of the many active and sunsetting SDR Task Forces and Working Groups for information. Questions on any of these SDR sub-groups can be directed to the SDR Secretariat ([bret.schothorst@mantech.com](mailto:bret.schothorst@mantech.com)). In addition, he circulated a letter to SDR representatives requesting FY 2016 funding contributions from agencies in support of the activities of the SDR and its Secretariat function. If SDR members are interested in contributing and would like additional documentation or an agency-specific letter, please send Applegate an email ([applegate@usgs.gov](mailto:applegate@usgs.gov)).

He also noted that efforts are underway to stand up a Federal Fire Science Coordination Committee to be chartered by the Fire Executive Council (FEC). This was a principal recommendation in SDR's *Wildland Fire Science and Technology Task Force Final Report* released this past November. The group is shooting for an early June kickoff meeting. Please reach out to the SDR Secretariat ([bret.schothorst@mantech.com](mailto:bret.schothorst@mantech.com)) to be connected with Jim Douglas at DOI to participate. Also on the wildfire front, the National Security Council (NSC) is planning to host a roundtable discussion on May 18 as a follow-on to last year's White House "Fire Chiefs Roundtable on Climate Change Impacts at the Wildland-Urban Interface" event. More information on the NSC wildfire roundtable will follow at the SDR May meeting.

SDR Co-chair Jack Meszaros (OSTP) highlighted a few recent White House events and publications on resilience-related topics, including: 1) As part of World Water Day, on March 22 the White House hosted a Water Summit to shine a spotlight on the importance of cross-cutting, creative solutions to solving the water problems of today, as well as to highlight the innovative strategies that will catalyze change in how we use, conserve, protect, and think about water in the years to come. A fact sheet on the event can be found at: <https://www.whitehouse.gov/the-press-office/2016/03/22/fact-sheet-working-together-build-sustainable-water-future>; and 2) Delivering on another commitment in the President's Climate Action Plan, on April 4 the Administration released a new report called *The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment*, which significantly advances what we know about the impacts of climate change on public health and the confidence with which we know it. A fact sheet on the activity can be found at: <https://www.whitehouse.gov/the-press-office/2016/04/04/fact-sheet-what-climate-change-means-your-health-and-family>. The report can be downloaded at: <https://health2016.globalchange.gov/>.

Meszaros stated that the NSC has also recently spun up a sub-IPC to look into extreme heat, anticipating problems for the coming summer. This effort is similar in scope to what the NSC has undertaken with regards to the recent multi-year drought and the current El Niño season. The effort has partnered with FEMA's *America's PrepareAthon!* campaign to coordinate an upcoming "Extreme Heat" week during the month of May, culminating in a webcast event on Friday, May 20. To engage this effort with respect to the S&T perspective, SDR agencies involved in the production of the SDR *Grand Challenges Heat Wave Implementation Plan* – primarily NOAA, CDC, and EPA – were asked to review areas of progress with respect to the Plan's short-, medium-, and long-term strategic actions. If other agencies in addition to NOAA, CDC, and EPA that would like to be a part of this effort, please reach out to the SDR Secretariat ([bret.schothorst@mantech.com](mailto:bret.schothorst@mantech.com)) to participate in the small *ad hoc* working group. More information on the FEMA extreme heat webcast will follow at the SDR May meeting.

Meszaros also mentioned that the work of the Hazard Review Teams within the SDR National Preparedness S&T (NPST) Task Force is well underway with regards to completing their S&T program crosswalks within the five PPD-8 mission areas. Over the next few weeks, the teams will look to finalize draft executive summary reports on their prioritization assessments and methodologies. A separate NPST sub-group is undertaking the task of developing recommendations on a formal protocol to conduct joint, interagency post-event S&T evaluation and assessment as part of the third function laid out in the group's charter. The protocol will leverage recent event experiences, lessons learned, and best practices to identify critical science capabilities and needs and inform the prioritization of future national preparedness S&T investments. The next meeting of this NPST post-event S&T sub-group will take place on Wednesday, April 27. Also of note, the NPST is engaged in a collaborative effort with FEMA and the NSC to incorporate S&T language into the recent update of the Federal Interagency Operational Plans (FIOPs). As part of this activity, the NPST plans to lead a writing team to draft a broader "S&T Annex" document for the FIOPs.

Aubrey Miller (NIH) with the National Institute of Environmental Health Sciences provided a summary of the NIH Disaster Research Response Program (DR2) Federal interagency meeting that took place on March 11, which explored Federal efforts for enhancing the nation's research capabilities in response to disasters. In collaboration with the National Library of Medicine, DR2 was created just over two years ago to help improve the collective ability to conduct timely health research in response to disasters and other time-critical situations. It has continued to grow in innovative ways to help address well-identified gaps associated with obtaining human health information following a disaster, including quick access to useful data collection tools, rapid development and implementation of research protocols, an expedited process for IRB reviews, and improved capacity to deploy trained researchers in the field. Miller noted that over 50 participants attended in person, with another 20 attending by phone, representing over 14 Federal departments, offices, and agencies.

Steve Cauffman (NIST) passed along information (attached) on an upcoming NIST-funded webinar put on by the Center for Risk-Based Community Resilience Planning at Colorado State University that will occur on Thursday, April 28 from 9:00 to noon Mountain Daylight Time. Join this informational webinar to learn more about the physics-based models of interdependent and cascading hazards and their effect on buildings, bridges, power, water/wastewater, communication systems, and other infrastructure. Please visit [http://resilience.colostate.edu/webinar\\_registration.php](http://resilience.colostate.edu/webinar_registration.php) to register to attend or email [resilience@colostate.edu](mailto:resilience@colostate.edu).

### **III. Roundtable Discussion: President's FY 2017 Budget Request**

Part of the April meeting was devoted to an agency roundtable budget discussion, which allotted a few minutes apiece for SDR representatives to provide OSTP and their fellow agencies with a quick overview of any major changes in hazard-related S&T spending in the President's FY 2017 budget request – both concerning programs within their agency and interagency work. NOAA identified integrated water prediction, climate research, ocean acidification, regional coastal resilience grants, investments in observations infrastructure, fleet and vessel recapitalization, commercial data buys, and revamped data systems as priority funding areas for the FY 2017 budget. NSF highlighted its hazards-related programs such as the Critical Resilient Interdependent Infrastructure Systems and Processes (CRISP) and Prediction of and Resilience against Extreme Events (PREEVENTS) efforts as primary research areas of focus for the next fiscal year. FEMA noted that its Pre-Disaster Mitigation Grant Program and Hazard Mitigation Grant Program are key areas for the FY 2017 budget, while EPA mentioned that the agency's Office of Research and Development has small disaster projects funded next year concerning wildfire, drought, and water issues. The USGS added that its budget request for FY 2017 calls out priorities in landslides, induced seismicity, and projects associated with the *National Space Weather Action Plan*.

#### **IV. Briefing: Update to 2005 NIBS Mitigation Study**

Applegate introduced Jennifer Goldsmith from FEMA's Building Sciences Division, who briefed SDR members on FEMA's efforts to fund an update to a 2005 National Institute of Building Sciences (NIBS) study on the value of mitigation. NIBS is a non-profit, non-governmental organization focusing on resolving problems that may hamper the construction of safe, affordable structures in the U.S.

The original study, commissioned by FEMA and funded through its Hazard Mitigation Grant Program, Project Impact Program, and the Flood Mitigation Assistance Program, demonstrated that for every public dollar spent on mitigation, society saves \$4. *Mitigation Saves* is the most often-quoted cost-benefit work on mitigation. This new study, titled *An Independent Study on Savings Associated with Public and Private Mitigation*, seeks to both update the original *Mitigation Saves* study data as well as to study the cost-effectiveness of private-sector mitigation. Goldsmith outlined that it proposes to revisit both FEMA data and include additional new data from other Federal programs and decisions made by the private sector. The public sector piece of the study will build off the prior study to include the benefit-cost ratio of investments made by other agencies including the Department of Housing and Urban Development administered Community Development Block Grants, the Small Business Administration Disaster Recovery Programs, and other Department of Transportation grants.

According to Goldsmith, study areas divided between six modules include mitigation measures for flood, wind, earthquake, and wildfire hazards, the effects of retrofitting existing facilities, the benefits of emergency management and business continuity programs, utility and transportation infrastructure mitigation, and public-sector grant and non-grant mitigation. The goal of this effort is to inform both public and private-sector mitigation decision-making on the benefits of hazard mitigation. She added that the value of the updated study will be seen in four areas:

- 1) Identifying mitigation opportunities that provide the best value to those funding the measure;
- 2) Providing an important benchmark for gauging progress towards community resilience over the long term;
- 3) Establishing frameworks for collecting disaster performance data; and
- 4) Creating a common methodology for quantifying future losses in both the public and private sectors.

Steve Cauffman (NIST) recommended that FEMA and its stakeholders keep a forward-looking thought process in mind with regards to the study and when thinking about historical data for hazards by suggesting the incorporation of climate change adaptation aspects as well as the consideration of non-construction options as part of the overall mitigation plan. Sezin Tokar (USAID) hoped that the methodology for collecting data as part of the study will be made publically available for other agencies and stakeholders to consider, specifically as the U.S. determines how it will begin marking progress on the targets and indicators of the newly ratified Sendai Framework for Disaster Risk Reduction 2015-2030.

Depending on funding and available data sources, Goldsmith closed her briefing stated that NIBS expects the study to take 12-18 months for the completion of all deliverables for approximately \$3.4 million. Please contact Goldsmith ([Jennifer.Goldsmith@fema.dhs.gov](mailto:Jennifer.Goldsmith@fema.dhs.gov)) or Ryan Colker ([rcolker@nibs.org](mailto:rcolker@nibs.org)) at NIBS if your agency is interested in participating in and/or supporting the study.

#### **V. Briefing: New USGS Induced Seismicity Hazard Map**

Applegate introduced Bill Leith, Senior Science Advisor for Earthquake and Geologic Hazards at the USGS, who presented on the newly released maps from the agency providing a one-year outlook on potential ground-shaking hazards from both human-induced and natural earthquakes for the Central and Eastern U.S. (CEUS).

These new maps supplement the USGS national seismic hazard maps, which only identify hazard from natural earthquakes over a 50-year timeframe. According to Leith, the report shows that approximately 7 million people live and work in areas of the CEUS with potential for damaging shaking from induced seismicity. The chance of having damaging earthquake shaking is 5–12 percent per year in north-central Oklahoma and southern Kansas. Within a few portions of that same area, the chance of damage from all types of earthquakes is similar to that of natural earthquakes in high-hazard areas like California.

The USGS identified 21 areas in several states with higher seismicity in recent years, most of which are suspected induced seismicity due to oil and gas activities. Near some areas of active induced earthquakes, the hazard is higher than in the 2014 USGS National Seismic Hazard Model by more than a factor of three, notably in central Oklahoma and southern Kansas. Leith added that whether the recent earthquake swarms are assessed as induced or not does not greatly affect the hazard calculations. This assessment is the first step in developing short-term earthquake forecasts for any area, as the analysis could be revised with various seismicity and model parameters

The publication containing the newly released USGS seismic outlook maps can be downloaded at: <https://pubs.er.usgs.gov/publication/ofr20161035>. Please email Leith ([wleith@usgs.gov](mailto:wleith@usgs.gov)) with any questions on his presentation.

## **VI. Adjournment**

Applegate adjourned the SDR April meeting at 11:55 a.m. and noted that the group's next meeting will be held on Thursday, May 5 in the White House Conference Center Lincoln Room.

## **VII. SDR 2016 Meeting Calendar**

SDR meetings in 2016 will be held from 10:00 a.m. to 12:00 p.m. on the dates listed below in the Lincoln Room of the White House Conference Center unless otherwise noted:

### **2016**

- ✓ Thursday, January 7\*
- ✓ Thursday, February 4
- ✓ Thursday, March 3
- ✓ Thursday, April 7
- ✓ Thursday, May 5
- ✓ Thursday, June 2
- ✓ Thursday, July 7
- ✓ Thursday, August 4\*\*
- ✓ Thursday, September 8\*\*\*
- ✓ Thursday, October 6
- ✓ Thursday, November 3
- ✓ Thursday, December 1

\* January meeting will be held in Room 430ABC of the White House Eisenhower Executive Office Building (EEOB).

\*\* August meeting subject to cancellation.

\*\*\* September meeting shifted to the second Thursday of the month to avoid proximity to the Labor Day Federal holiday.

## **VIII. Agenda Items and Other Communications with the Subcommittee**

Please send proposed agenda items and any other items intended for distribution to the full Subcommittee to the SDR Secretariat ([bret.schothorst@mantech.com](mailto:bret.schothorst@mantech.com)).

**IX. Contact Information**

**SDR Leadership**

David Applegate	Co-chair	703-648-6600	<a href="mailto:applegate@usgs.gov">applegate@usgs.gov</a>
Margaret Davidson	Co-chair	843-740-1220	<a href="mailto:margaret.davidson@noaa.gov">margaret.davidson@noaa.gov</a>
Jack Meszaros	Co-chair	202-456-6020	<a href="mailto:Jacqueline_R_Meszaros@ostp.eop.gov">Jacqueline_R_Meszaros@ostp.eop.gov</a>

**Executive Secretariat**

Bret Schothorst	703-388-0312	<a href="mailto:bret.schothorst@mantech.com">bret.schothorst@mantech.com</a>
Barbara Haines-Parmelee	703-388-0309	<a href="mailto:barbara.haines-parmelee@mantech.com">barbara.haines-parmelee@mantech.com</a>

**X. Summary of April Actions**

Action	Lead	By When
The next SDR meeting will be held on Thursday, May 5 in the White House Conference Center Lincoln Room.	SDR Members	For Information
Send Dave Applegate an email ( <a href="mailto:applegate@usgs.gov">applegate@usgs.gov</a> ) if you are interested in contributing to the work of the SDR and would like additional documentation or an agency-specific letter.	SDR Members	ASAP
Reach out to the SDR Secretariat ( <a href="mailto:bret.schothorst@mantech.com">bret.schothorst@mantech.com</a> ) to be connected with Jim Douglas at DOI to participate in the Federal Fire Science Coordination Committee.	SDR Members and Federal Colleagues	ASAP
Contact the SDR Secretariat ( <a href="mailto:bret.schothorst@mantech.com">bret.schothorst@mantech.com</a> ) if your agency would like to participate in a small ad hoc working group to look at progress on the short-, medium-, and long-term strategic actions of the SDR Grand Challenges <i>Heat Wave Implementation Plan</i> .	SDR Members	ASAP
Visit <a href="http://resilience.colostate.edu/webinar_registration.php">http://resilience.colostate.edu/webinar_registration.php</a> to register to attend a NIST-funded webinar put on by the Center for Risk-Based Community Resilience Planning at Colorado State University.	SDR Members and Federal Colleagues	ASAP
Contact Jennifer Goldsmith ( <a href="mailto:Jennifer.Goldsmith@fema.dhs.gov">Jennifer.Goldsmith@fema.dhs.gov</a> ) or Ryan Colker ( <a href="mailto:rcolker@nibs.org">rcolker@nibs.org</a> ) if your agency is interested in participating in and/or supporting the updated NIBS mitigation study.	SDR Members and Federal Colleagues	Standing
Email Bill Leith ( <a href="mailto:wleith@usgs.gov">wleith@usgs.gov</a> ) with any questions on his presentation on the new USGS induced seismicity hazard forecast maps.	SDR Members and Federal Colleagues	Standing
Stay tuned for further developments from the SDR IDRR Working Group on the issue of how the U.S. tracks domestic disaster losses and other hazards-related statistics.	SDR Members	Standing
Email the SDR Secretariat ( <a href="mailto:bret.schothorst@mantech.com">bret.schothorst@mantech.com</a> ) to suggest external DRR stakeholder groups to invite to present at quarterly SDR meetings on behalf of the U.S. National Platform for UNISDR.	SDR Members	Standing
Submit additional agency suggestions of SDR plans and priorities for consideration in 2016 to the SDR Secretariat ( <a href="mailto:bret.schothorst@mantech.com">bret.schothorst@mantech.com</a> ).	SDR Members	Standing