Chairman Perry, Ranking Member Watson Coleman, and Members of the Subcommittee; thank you for the opportunity to appear before you today to discuss our efforts to assess climate change as a risk within the 2014 Quadrennial Homeland Security Review.

I am Thomas Smith, Acting Assistant Secretary for DHS’s Office of Policy – Strategy, Plans, Analysis and Risk (SPAR). I have been with DHS since July of 2013 and with SPAR since the summer of 2014. Prior to joining the Department, I served 29 years in the United States Army, culminating with an assignment as the Chief of Operations, Plans, and Training (G-3) for the Army Corps of Engineers. The mission of SPAR is to develop analytically driven, high-impact products that improve DHS and the homeland security enterprise’s strategic direction, integration, and decision-making; design and refine DHS processes necessary for the strategic management of the Quadrennial Homeland Security Review (QHSR) missions; and to ensure DHS strategy, planning, and analysis have the intended, beneficial impact on homeland security activities.

First and foremost, the QHSR is a validation of the five enduring missions of the Department:
1. Prevent Terrorism and Enhance Security;
2. Secure and Manage Our Border;
3. Enforce and Administer Our Immigration Laws;
4. Safeguard and Secure Cyberspace; and
5. Strengthen National Preparedness and Resilience.

The first QHSR, published in 2010, articulated that homeland security is ultimately about managing the risk to the Nation posed by a range of threats and hazards. The second QHSR, published in 2014, comprehensively examines the homeland security strategic environment and identifies strategic shifts as well as areas of ongoing priority and renewed emphasis for the Nation’s long-term homeland security strategy. In developing the 2014 QHSR, the Office of Policy conducted a number of activities to understand threats and hazards, as well as the strategic environment we operate in – analyses collectively known as the Homeland Security Strategic Environment Assessment (HSSEA). The HSSEA characterizes those risks, threats, current and future trends, and critical uncertainties with the greatest potential to affect homeland security in the 2015-2019 timeframe. As part of this process, DHS sought input from industry, academia, and government\(^1\) to provide a greater understanding of the homeland security strategic environment and to ensure that the priorities highlighted in the quadrennial review were risk informed. Experts involved in the HSSEA collectively identified natural disasters, pandemics, and climate change as key drivers of change to the homeland strategic environment.

As articulated in the 2014 QHSR, natural disasters, pandemics, and climate change and associated trends continue to present a major area of homeland security risk, and may indirectly act as “threat multipliers.” Each of these factors aggravates stressors abroad that can enable terrorist activity and violence, such as poverty, food insecurity, environmental degradation, and social tensions. Over time, these drivers have the potential to cause severe consequences:

- More frequent severe droughts and tropical storms, especially in Mexico, Central America, and the Caribbean, could increase population movements, both legal and illegal, toward or across the U.S. border.
- Melting sea ice in the Arctic may lead to new opportunities for shipping, tourism, and legal resource exploration, but may also lead to new routes for smuggling and trafficking, increased risk of environmental disasters, and illicit resource exploitation.

\(^1\) USG Components included in the formation of the 2\(^{nd}\) QHSR included: DHS, DOJ, DOS, DOD, HHS, Treasury, USDA, ODNI, Commerce, Education, DOE, EPA, Housing and Urban Development, DOI, DOT, GSA, Labor, VA, and SBA.
Higher temperatures may change patterns of human, animal, and plant diseases, putting the workforce, plant and animal health, and the general public at higher risk of illness.

Higher temperatures and more-intense storms may also damage or disrupt telecommunications and power systems, creating challenges for telecommunications infrastructure, emergency communications, and the availability of cyber systems.

The inclusion of climate change in the 2014 QHSR built upon previous findings from the first QHSR in 2010, which also recognized the potential disruptions caused by climate change. The first QHSR noted that climate change was expected to increase the severity and frequency of weather-related hazards, which could, in turn, result in social and political destabilization, international conflict, or mass migrations. This assessment was further validated through extensive engagement during the 2014 QHSR process, including outreach across the Department and with interagency stakeholders; state, local, tribal, and territorial governments; and our private sector partners. DHS also employed IdeaScale and an online “Community of Practice” to solicit online engagement from homeland security practitioners.

Under the umbrella of the HSSEA, the Office of Policy analyzed the direct and indirect impacts of climate change. The Department’s foundational research studies that analyzed and assessed current trends and risk included:

**Homeland Security National Risk Characterization**

The Homeland Security National Risk Characterization (HSNRC) is a profile of steady-state and contingent homeland security risks which considered and compared a variety of threats and hazards, including those stemming from natural disasters, adversarial threats, and accidental technological or human-caused hazards. The Risk Characterization identified those risks that have the potential to significantly impact the nation’s homeland security. The HSNRC identified the direct and indirect effects of climate change as a national risk. These risks included hurricanes, tornadoes, wildfires, and floods.

A significant amount of outreach was involved in developing the HSNRC. Elements such as data sources, methodology, and/or key results were shared with senior leadership and members of technical staffs from other governments, including the United Kingdom, Canada, Mexico, Australia, and New Zealand,
who also conduct national risk assessments. The methodology was also shared at professional society conferences such as the Association of Federal Enterprise Risk Management Annual Summit, the Institute for Operations Research and the Management Sciences Practitioner Conference, and the Society for Risk Analysis Annual Conference.

**Current Strategic Environment 2012**
The Current Strategic Environment (CSE) report provided a focused examination of current trends and drivers underpinning the homeland security strategic environment. It outlined important current trends and key statistics within sixteen homeland security strategic drivers that span society, technology, the economy, the environment, and governance. The CSE is the product of months of focused research and analysis of the current trends and key statistics. The CSE noted that while it is not appropriate to attribute any single extreme weather event to climate change, climate change can affect the likelihood of certain types of extreme events.

As part of analyzing the CSE, team members reached out to subject matter experts from outside the Department (including think tanks and universities) in order to find new trends and verify that identified trends were generally perceived to be correct.

**Future Strategic Environment 2013**
The Future Strategic Environment (FSE) report highlighted key uncertainties, influential drivers, and associated sets of strategic indicators relevant to the missions and operations of homeland security out to the year 2030. The key insights of the FSE stem from a structured process of data collection and analysis that leveraged structured discussion and decision working groups, and the qualitative judgement of a diverse body of participants and subject matter experts, including over 100 participants from across DHS, the Intelligence Community, and the broader U.S. Government. The FSE concluded that the effects of climate change were one of the top six areas of key uncertainties and challenges, and was particularly resistant to influence by the homeland security enterprise efforts.

FSE team members discussed elements of the future strategic environment with Federal partners in a variety of working meetings with the Departments of Agriculture, Defense, Health and Human Services, State, Treasury, Veterans
Affairs, and the Environmental Protection Agency. The results were also raised at the U.S. Department of Homeland Security’s University Based Centers of Excellence Directors’ Meeting and the National Center for Risk and Economic Analysis of Terrorism Events 10th Year Anniversary Celebration.

In addition to our own risk assessments and analysis efforts, DHS drew upon previous work conducted under Executive Order (E.O.) 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*, and follow-on work, including: the *Climate Change Adaptation Report*, October 2010; the *Climate Change Adaptation Roadmap*, June 2012; and the *DHS Climate Action Plan*, September 2013. The work performed during the QHSR utilized and included work from these previous efforts to understand the impact of climate change on departmental missions. The 2012 *DHS Climate Change Adaptation Roadmap* fulfilled the Executive Order 13514 requirement for all Federal Agencies to reinforce and comply with the U.S. Government’s efforts to develop a national climate change adaptation strategy and to meet Federal Requirements of reducing greenhouse gas emissions to integrate climate change adaptation into both the culture and operations of the Department.

In conclusion, the best way to posture the Department to effectively address emerging threats and accomplish the Department’s five enduring missions is to ensure that tough policy, strategy, and resource decisions are informed by a consideration of the strategic environment, with a clear sense of the associated risk and resource implications. To disregard natural disasters, pandemics, and climate change would be ignoring how these factors may indirectly act as “threat multipliers”; and neglect our shared responsibility to strategically manage risk and build a more prepared, resilient Nation. It is through the thorough and candid assessment of these risks that that we will strengthen the security and resilience of the United States.

I look forward to addressing your questions.