



Karen Paczkowski

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you’re on the menu.”

Solving our nation’s toughest challenges requires a coordinated effort between scientific knowledge, effective legislation, and sound policy. As a society, we must decide how to protect and sustainably use our natural resources, how to mitigate and adapt to natural hazards, and how to secure our energy supply. Geoscience has an important role to play in deciding the answers to these challenging questions.

Using geoscience to inform policy has been a constant thread through my career. As a graduate student, I participated in several Geoscience and STEM (science, technology, engineering, and mathematics) Congressional Visits Days (CVDs). CVDs are two-day events where scientists from around the country travel to D.C. to meet with their congressional representatives. In my own face-to-face meetings with congressional offices and committees, I stressed the importance of federally funded basic science research by emphasizing the societal impacts of my own research, the societal benefits of geoscience as a field, and the value of geoscience education. CVDs send a powerful reminder to policymakers of the need not only to support geoscience programs verbally, but to support them financially as well. There’s an old saying in Washington: “If you’re not at the table, you’re on the menu.”

I believe these CVD visits had an effect on policymakers, and I know they had an effect on me. I discovered that my geoscience background could be used to help tackle national challenges by using science to develop better policy. After finishing my Ph.D. in geophysics, I made the leap into science policy through the GSA Science Policy Fellowship. I worked as a liaison between scientists and policymakers in GSA’s Government Affairs Office in D.C. Through this position, I gained valuable hands-on experience in key geoscience topics and insight into the inner workings of D.C.

I am honored to serve as the 2015–2016 GSA-USGS Congressional Science Fellow. This past September, I joined 200 other scientists and engineers as part of the incoming class of American Association for the Advancement of Science (AAAS) Science and Technology Policy Fellows. The fellowship began with a two-week whirlwind orientation to science policy. Senators, representatives, judges, diplomats, and many others were brought in to impart their wisdom to the new class of fellows. After the training, I interviewed with a broad range of offices, including Representatives, Senators, and committees, before accepting an offer to serve in the office of Massachusetts Senator Edward J. Markey.

I work for the Senator on a broad range of topics, including energy, the environment, and STEM research and education. I draft statements and questions for congressional hearings in the Environment and Public Works Committee and the Commerce, Science and Transportation Committee. I accompany the Senator to these hearings, helping him react in real-time to comments made by witnesses and other Senators. I also draft Statements for the Congressional

Record, including a congratulatory message to the MIT LIGO gravity waves detection team. Our office used the discovery to highlight the importance of basic science research funding provided by the National Science Foundation. I also help write the Senator’s remarks for STEM events, including a recent event on increasing the involvement of women in STEM fields.

One of my most exciting tasks has been drafting legislation. On 18 Sept. 2015, the Environmental Protection Agency announced that Volkswagen had been using defeat devices to circumvent emission test requirements on 500,000 U.S. vehicles. These defeat devices allowed Volkswagen (VW) vehicles to emit up to 40 times the nitrogen oxide (NOx) allowable under U.S. law.

In response to the VW Diesel Scandal, I helped write the CLEANUP Act. CLEAN-UP is an acronym for Compensating Losses to the Environment from Automobiles with Noxious Undisclosed Pollution. The CLEANUP Act holds VW and other automakers accountable to the American public for fraudulently circumventing U.S. emissions laws. It ensures that automakers aren’t allowed to benefit from Corporate Average Fuel Economy (CAFE) credits awarded as a result of illegal behavior. The CLEANUP Act denies CAFE credits to any auto manufacturer that circumvents emissions control requirements and allows the Department of Transportation to collect additional penalties from automakers that obtain the credits fraudulently. Penalties from violations are diverted to programs that clean up the air, including investments in electric vehicle fueling stations, retrofitting school buses to reduce air emissions, purchasing zero-emitting cars for municipal fleets, or providing grants for projects to improve air quality in low-income communities.

The senator, my fellow staffers, and I developed the ideas behind this bill and worked with legislative counsel to formalize the bill’s language. The bill circulated with a one-page summary (referred to as a one-pager) that explains what the bill does without the legal language. We also drafted a “Dear Colleague” letter asking other senators to cosponsor the bill. I dropped off the bill in the Capitol on 25 February, and it now awaits markup in the Senate’s Committee on Environment and Public Works.

As the GSA-USGS Congressional Science Fellow, I now sit on the other side of the table, meeting with constituents and stakeholders on topics in my portfolio. I particularly enjoy meeting with geoscientists during CVDs and hearing about the exciting, important research in our field. I’m happy to have found my place at the table, and I encourage all geoscientists to participate in science policy. Together, we can tackle our nation’s toughest challenges. Please feel free to contact me if you have any questions. I’m always happy to talk about the intersection between science and policy, and am eager to help scientists find their own seat at the table.

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