

**WHEN SCIENCE GETS TRUMPED:
SCIENTIFIC INTEGRITY AT THE
DEPARTMENT OF THE INTERIOR**

OVERSIGHT HEARING

BEFORE THE

COMMITTEE ON NATURAL RESOURCES
U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED SIXTEENTH CONGRESS

FIRST SESSION

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OVERSIGHT HEARING ON WHEN SCIENCE GETS TRUMPED: SCIENTIFIC INTEGRITY AT THE DEPARTMENT OF THE INTERIOR

**Thursday, July 25, 2019
U.S. House of Representatives
Committee on Natural Resources
Washington, DC**

The Committee met, pursuant to notice, at 2:14 p.m., in room 1324, Longworth House Office Building, Hon. Raúl M. Grijalva [Chairman of the Committee] presiding.

Present: Representatives Grijalva, Costa, Huffman, Lowenthal, Neguse, Haaland, Cunningham, DeGette, Clay, Soto, Case, Cartwright, Tonko; Bishop, McClintock, Gosar, Hice, González-Colón, Curtis, and Fulcher.

The CHAIRMAN. The Committee on Natural Resources will come to order. Thank you. The Committee is meeting today to hear testimony on scientific integrity at the Department of the Interior. Under Committee Rule 4(f), any oral opening statements at the hearing are limited to the Chairman and the Ranking Minority Member. Therefore, I ask unanimous consent that all other Members' opening statements be made part of the hearing record if they are submitted to the Clerk by 5 p.m. today. Hearing no objection, so ordered.

I will now recognize myself for my opening statement.

STATEMENT OF THE HON. RAÚL M. GRIJALVA, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ARIZONA

The CHAIRMAN. First of all, I want to extend a special thank you to our witnesses for taking the time to be here. Two of our witnesses in particular will be sharing experiences that have been difficult for them, and I want to extend our appreciation for you doing so and sharing those stories with us.

Today's hearing will examine scientific integrity or, rather, the lack of scientific integrity under the current administration at the Department of the Interior. It is no secret that this administration is not a big fan of science, especially when it comes to science that has overwhelmingly determined that climate change is caused by humans and is threatening nearly every aspect of our lives, and certainly the work of this Committee.

We have seen story after story about climate change being deleted from government websites, senior advisors suggesting we consider alternative facts, and science and climate change deniers being appointed to leadership positions. But there are few places in the Trump administration where the attack on science has been more intense than in the Department of the Interior.

Today, we are going to hear from two people who were employed with the National Park Service and the Department of the Interior.

Their stories are deeply disturbing but not unique. Narrowing those stories down to two was difficult.

We could have talked about Steve Spangle, the now-retired Fish and Wildlife Service employee in my home state of Arizona. Mr. Spangle says he was pressured by a “high-level politico” to change his decision about the impacts of a housing development on endangered and threatened species. The development in question is massive, with over 28,000 homes, golf courses, and other amenities. In the already parched Arizona desert, there is no question that this development would devastate the nearby San Pedro River, the last major free-flowing river in the entire Southwest.

But, as it turns out, that development just happens to be owned by one of the President’s good buddies and donors, Mike Ingram.

We could have also talked about the Fish and Wildlife Service’s Biological Opinion on three major pesticides that was ready to be released to the public, but is now just gathering dust, shelved until the next election. We know that one of those pesticides alone could put 1,400 threatened and endangered species in jeopardy. This is the same pesticide that is so harmful to babies’ brain development that some states have already passed bans on the use of it at all.

Of course, there are also stories we probably have not heard yet. These are stories that career scientists at Interior are afraid to share, and with good reason. They have seen their colleagues, like our witnesses today, get threatened, harassed, reassigned, and retaliated against. Interior’s leadership has created a culture of fear and intimidation for scientists, not integrity.

And let me be clear. It is not just the scientists who are the victims in all this. It is our public lands, our wildlife, and indeed us.

When Federal agencies ignore science and the facts, major decisions no longer represent what is best for the health or safety of the American people and our environment. They represent the interests of the highest bidder.

I was hoping that Interior would be able to clear up some of the questions about their treatment of science. We extended an invitation ahead of the unofficial deadline, but they refused to come. And that decision is hard to defend.

I would also add the situation that occurred 2 years ago when we visited Appalachia to look at the aftermath of the mountain. After that trip, community groups and health advocates in the area, in the Appalachia area, lobbied very hard to get a study.

The previous administration awarded a health study to take 3 years. When President Trump was elected, it was canceled shortly thereafter with not even a year’s worth of study data being collected about the overall effects of mountaintop removal, the drainage, the waste accumulated, and the effects on the public health of individuals in that area.

I mention that as well because I think after the break we have requested information on that particular issue and on other issues over and over again, and one of the reasons for this oversight hearing as well as actions to follow is that we are at the point that the lack of response to that question and others is requiring us to fully explore and prepare for whatever legal actions we need to take to compel that information to be brought forth.

[The prepared statement of Mr. Grijalva follows:]

PREPARED STATEMENT OF THE HON. RAÚL M. GRIJALVA, CHAIR, COMMITTEE ON
NATURAL RESOURCES

I want to extend a special thank you to our witnesses for taking the time to be here. Two of our witnesses in particular will be sharing experiences that have been difficult for them, so I also want to recognize their remarkable courage in speaking out and sharing their stories with us.

Today's hearing will examine scientific integrity—or rather, the lack of scientific integrity—under the current administration at the Department of the Interior. It's no secret that the Trump administration is not a fan science. Especially when it comes to the science that has overwhelmingly determined that climate change is caused by humans and is threatening nearly every aspect of our lives, and certainly of the work of this Committee.

We have seen story after story about climate change being deleted from government websites, senior advisors suggesting we consider “alternative facts,” and science and climate change deniers being appointed to leadership positions. But there are few places in the Trump administration where this attack on science has been more intense than the Department of the Interior.

Today, we are going to hear from two people who were employed with the National Park Service and the Department of the Interior. Their stories are deeply disturbing, but unfortunately not unique. In fact, one of the hardest parts of putting together this hearing was narrowing down the list of troubling incidents to just two.

We could have also talked about Steve Spangle, the now-retired Fish and Wildlife Service employee in my home state of Arizona. Mr. Spangle says he was pressured by a “high level politico” to change his decision about the impacts of a housing development on endangered and threatened species.

The development in question is massive, with nearly 28,000 homes, plus golf courses and other amenities. In the already parched Arizona desert, there is no question that this development would devastate the nearby San Pedro River, the last major free-flowing river in the entire Southwest.

But, as it turns out, that development just happens to be owned by one of Trump's good buddies and donors, Mike Ingram.

We could have also talked about the Fish and Wildlife Service's biological opinion on three major pesticides that was ready to be released to the public but is now just gathering dust because Secretary Bernhardt has shelved it until after the next election.

We know that one of those pesticides alone could put 1,400 threatened and endangered species in jeopardy. This is the same pesticide that is so harmful to babies' brain development that some states have already passed bans on any use of it at all. But, as it turns out, pesticide and chemical manufacturers like Dow Chemical didn't like what the science had to say.

And that just begins to scratch the surface of the many attacks on science we've heard about at Interior.

Of course, there are also all the stories we probably haven't heard yet. There are the stories that career scientists at Interior are too afraid to share. And with good reason. They have seen their colleagues, like our witnesses, get threatened, harassed, reassigned, and retaliated against. Interior's leadership has created a culture of fear and intimidation for scientists, not integrity.

And let me be clear—it's not just the scientists who are the victims in all of this. It is our wildlife, our public lands—and us.

When Federal agencies ignore science and the facts, major decisions no longer represent what is best for the health or safety of the American people and our environment. They represent the interests of the highest bidder.

I was hoping that the Interior Department would be able to help clear up some of the questions about their treatment of science. We extended them an invitation ahead of their unofficial deadline. But they refused to come. I can see why. It's hard to defend.

The CHAIRMAN. With that, I now recognize Ranking Member Bishop for his opening statement.

**STATEMENT OF THE HON. ROB BISHOP, A REPRESENTATIVE
IN CONGRESS FROM THE STATE OF UTAH**

Mr. BISHOP. Thank you, Mr. Chairman. Let me start by giving you some kudos—you might as well have them when they exist—for having a very clever title in today’s hearing. I want you to know it is a cute title. Give us some slack because it is obviously harder to try to work catchphrases in when you are working with the name Obama. But we will try to do that.

This show could also be titled, “Democrats Accuse Trump of Whitewashing Climate Science,” or “Democrats Accuse Bernhardt of Giving Handouts to Their Buddies.” We could do a lot of interesting stuff on handouts like if you remember the production tax credit in Solyndra and all that kind of fun stuff that was going on there.

It is interesting that we talk so much about bipartisan work and venerate in releases from this Committee, like the Gosar-Levin bill that is working in a bipartisan way for a problem that both you and I have co-sponsored, and then at the same time then come around with a very partisan hearing, not only in the title but also in the substance that takes place.

It is interesting where this hearing can lead because, simply, if there was legislation on this topic to be developed, it would be assigned to the Science Committee, as several of our witnesses are doing an encore performance because they have already testified before the Science Committee that does have the jurisdiction on all this.

So, we can talk about Interior and it will be cute, but it doesn’t really reach where we need to go. If you turn on the TVs for a second, I would appreciate it. If we are talking about scientific integrity complaints, those are the number of scientific integrity formal complaints that have been given since Fiscal Year 2011.

As you realize, they were much higher in the years during the Obama administration, when Ms. Jewell and Mr. Salazar were running the agency, than they are right now. In fact, if anything, you could ask, why are they decreasing so significantly today, or where were Democrats in 2008, 2009, 2010, 2011, 2012, 2013, and 2015 especially, when we were having so many complaints. Because it cannot be forgotten that it was under the Obama administration where there were two cases of continuous data manipulation that were exposed at USGS Energy Resource Program Laboratory, where a scientific review panel found scientists to have intentionally manipulated the data.

And it was under the Obama administration where a Scientific Integrity Officer, Dr. Paul Houser, was ultimately fired for bringing to light major discrepancies between data and conclusions reached by the administration. He stated that his challenging of the Obama administration’s conclusions resulted in systematic reprisals and termination of his employment.

It was under the Obama administration that USDA was accused of suppression and alteration of scientific work for political reasons. It was Dan Ashe who admitted in 2005 that he broke the law by not conducting a Section 7 consultation in respect to the administration’s plan to eliminate warm water habitat for the endangered manatee.

It was the same Dan Ashe who refused to provide the data used to list the White Bluffs bladderpod, to the point that then-Chairman Hastings had to issue a subpoena in an attempt to force data transparency from the self-proclaimed most transparent administration in history.

It was the Fish and Wildlife Service that signed closed-door ESA mega-settlements, which established arbitrary deadlines for hundreds of added listing decisions, including that bladderpod, and siphoning resources away from ongoing science-based protection and recovery.

It was the Fish and Wildlife Service that asked, "This is our proposal. Does anyone have any evidence out there to sustain it? And if it cannot be done, then we will do our best guess as our policy decision."

In fact, in the Trump administration, it is Secretarial Order 3369 that was signed in September of last year by then-Deputy Secretary Bernhardt that directs the Department to make its decisions on the best available science and provide American people with enough information to thoughtfully and substantially evaluate the data, methodology, and analysis used by the Department to inform decisions.

In essence, we are going to hear claims, some of them unfounded, some of them founded, but claims that I think can go through all administrations. And the bottom line is, if we really are serious about finding solutions to specific problems, then we should be able to work on those.

But if not, if we are just going to come up with some partisan propaganda and throw it out here, then we will spin our wheels with partisan propaganda, realizing that any legislation coming from this topic would never be assigned to this Committee. It is in the jurisdiction of the Science Committee totally, where the hearing was properly held.

In essence, we will have another fun hearing. It will not be as cool as the one yesterday, but may probably have the same impact that takes place. I yield back.

The CHAIRMAN. Thank you very much. And before I introduce the panelists and the witnesses, just to remind my colleagues that in the 114th Congress, when the ONI Committee and the function was established, one of the first hearings that we had was entitled, "Zero Accountability: The Consequences of Politically Driven Science."

I mention that because this was a Republican hearing, essentially, the agenda and the witnesses. So, this is not turnaround is fair play. This is essentially being consistent with having some accountability in terms of how science is functioning in the Department of the Interior. And we hope to continue that tradition.

Mr. BISHOP. Mr. Chairman, as part of your introduction, I will still remind you—I appreciate that comment—that we can talk about what the Department of the Interior ought to be doing internally. But my statement still stands. If there indeed is legislation, and there is, it will be assigned to the Science Committee solely. We will not get a referral on it.

So, this is going to be fun and interesting and cute, but any legislation that comes from this Committee is not going to be

assigned to us and will not be part of our jurisdiction. And that is the problem. And that is not my decision, what we should or should not be doing, that is simply the Parliamentarian's decision on where jurisdiction in this case lies.

So, let's go on with it, and let the games begin.

The CHAIRMAN. With that, let me now introduce our panel. And thank you very much again.

Dr. Andrew Rosenberg is the Director of the Center for Science and Democracy at the Union of Concerned Scientists. Mr. Joel Clement is a Senior Fellow at Belfer Center for Science and International Affairs at Harvard University. Mr. Daren Bakst is Senior Research Fellow in Agricultural Policy at The Heritage Foundation. At this point, let me yield to the gentlewoman from Colorado, Ms. DeGette, who will introduce our last witness.

Ms. DEGETTE. Thank you so much, Mr. Chairman. I am so honored to introduce my constituent, Maria Caffrey. You have come a long way to tell your story today. And I want to thank you for your really important work on climate change, sea level rise, and the national parks. I think the scientific expertise that you and your colleagues have provided our Federal agencies is really important because our policies should be based on science.

I don't think what happened to Dr. Caffrey, Mr. Chairman, is cute. I just want to report that for the record. And it is something we all need to hear today, and I am really proud of you for coming. Thank you.

The CHAIRMAN. Thank you. To the witnesses, the lights in front of you will turn yellow when you have a minute left to finish your oral presentation. Your written testimony in its entirety will be part of the record. When the light turns red, it means you stop. And then, after all the witnesses have given their testimony, the Members will have the opportunity to ask questions.

With that, I now recognize Dr. Andrew Rosenberg for your 5 minutes.

**STATEMENT OF ANDREW ROSENBERG, Ph.D., DIRECTOR,
CENTER FOR SCIENCE AND DEMOCRACY, UNION OF
CONCERNED SCIENTISTS, CAMBRIDGE, MASSACHUSETTS**

Dr. ROSENBERG. Chairman Grijalva and Ranking Member Bishop, thank you for the opportunity to testify today about scientific integrity reform and attacks on science in the Trump administration. I am Andrew Rosenberg, Director of the Center for Science and Democracy at the Union of Concerned Scientists. I have over 30 years of experience in research, providing scientific advice for governments, and in implementing science-based policies.

Science must play a central role in the Department of the Interior. Without scientific evidence and other evidence such as local knowledge of threats and concerns, policy decisions are guided solely by political influence rather than facts.

Scientific integrity can be compromised by political censorship, manipulation, and/or intimidation of scientists. Some examples of attacks at the Department of the Interior, selected from our research, are as follows:

The Fish and Wildlife Service bowed to political pressure and circumvented the need for a comprehensive assessment of impacts on endangered species of a proposed city-sized development in southeastern Arizona, as the Chairman mentioned.

The Department suppressed 18 memos from staff scientists raising concerns about proposed oil and gas operations in the Arctic National Wildlife Refuge. And they defunded landscape conservation cooperatives, effectively censoring climate change adaptation information for state and local governments.

The Department of the Interior published an analysis of grey wolves that was riddled with scientific errors, as identified by peer reviewers, and that analysis then ostensibly supported removing Endangered Species Act protections for this species.

And DOI officials blocked the release of a comprehensive analysis on potential dangers of widely used pesticides for hundreds of endangered species, as the Chairman noted, 1,400.

In addition, there are broader-scale attacks on science that impact Interior and other agencies. These include:

Tossing aside analyses that use confidential information, such as health records, and endangered species location information. I believe that was referred to by the Ranking Member.

Eliminating expert advisory panels across the Government, including at Interior.

Changing the way benefits to the public are calculated and misusing the very concept of cost/benefit analyses.

And arbitrarily restricting the length of and public access to environmental analyses, regardless of the amount of information needed to inform the public and the policy.

I want to be clear. We don't highlight attacks on science to protect scientists. I am not concerned that my feelings will be hurt or that the controversy over political decisions is not appropriate and real. I worked with fishermen for many years, and they can be, I might say, direct. I can take the heat, and so can many of my colleagues. But censorship and manipulation of results is misuse of our work, and most importantly, results in bad policies.

Since 2005, the Union of Concerned Scientists has conducted surveys of Federal Government scientists to measure the level of political, corporate, and other pressures on their work. And, in 2018, scientists reported high levels of censorship and self-censorship.

At the Department of the Interior, a majority of respondents felt that consideration of political interests is a burden to science-based decision making. Staff time and funding resources are moved away from work considered politically contentious, according to those employees. And senior managers censor scientists and consistently remove references to climate change, a majority of those scientists said.

Two quotes, I think, are instructive from National Park Service scientists: (1) "We are no longer authorized to share scientific findings with the public if they center on climate change. Materials are marked 'For Internal Use Only'." And (2) "Consistent removal of

references to climate change have hindered our ability to have honest discussions about the potential threats of climate change to the National Park System.”

The Scientific Integrity Act, introduced by Representative Tonko and co-sponsored by over 200 Members of Congress, is good government legislation. Scientific integrity refers to the processes in which independent science fully and transparently informs policy decisions free from inappropriate political influence. That is what is meant by scientific integrity, and in fact, we have other processes in place to deal with scientific misconduct and other matters that often are mistakenly labeled as scientific integrity.

The Scientific Integrity Act is agnostic on the matter of policy. Rather, it aims to ensure that policies are fully informed by science. The legislation contains many of the best practices that have been identified for the development and maintenance of a thriving scientific enterprise, including prohibiting any employee from manipulating or misrepresenting findings, ensuring scientists can carry out their research.

Thank you, Mr. Chairman. I conclude my remarks and look forward to answering any questions.

[The prepared statement of Dr. Rosenberg follows:]

PREPARED STATEMENT OF DR. ANDREW A. ROSENBERG, DIRECTOR, CENTER FOR SCIENCE AND DEMOCRACY, UNION OF CONCERNED SCIENTISTS

Chairman Grijalva, and Ranking Member Bishop, thank you for the opportunity to testify today on scientific integrity and attacks on science in the Trump administration and beyond, along with solutions to restore scientific integrity to Federal policymaking. My name is Andrew Rosenberg. I am the Director of the Center for Science and Democracy at the Union of Concerned Scientists. The Center works to advance the role of science in the public policy process and in the Nation’s democratic dialogue. We have many years of experience examining and documenting political interference in science in the Federal Government and advancing policies that protect science and scientists.

I am a marine scientist with over 30 years of experience in research, providing scientific advice for governments and in implementing science-based policies. Among my previous positions, before joining the Union of Concerned Scientists in 2012, I was a scientist for NOAA, a NOAA Regional Administrator for Fisheries and Deputy Director of NOAA Fisheries, the senior career position in the agency overseeing all regulatory matters. I also served as the Dean of Life Sciences and Agriculture and Professor of Natural Resources at the University of New Hampshire.

Science must play a central role in the Department of the Interior, NOAA and in fact across the government. Science provides the “sideboards” if you will, for public policy decisions. By that I mean that science doesn’t mandate nor is it the only input to decisions, but it guides the process. Scientific evidence identifies issues and concerns that may merit policy action and elucidates some of the consequences of different possible action options. Without scientific evidence, and other evidence such as local knowledge of threats and concerns, decision making becomes wholly political. That is, policy decisions will become solely guided by political influence rather than evidence and facts. We know from many examples that this approach harms public health and the environment.

Since 2004, the Union of Concerned Scientists has regularly monitored agencies for actions that compromise the use of science in policymaking. We have learned about such issues through the media, through congressional oversight, and from scientists themselves. We conducted surveys of Federal scientists about the level of political interference in their work during this and the two previous presidential administrations. We have pushed for and participated in congressional oversight related to scientific integrity, and regularly work with reporters to bring abuses of science to light. We developed model good government policies for Federal scientific agencies and analyzed and made recommendations about both the content and implementation of Federal agency scientific integrity policies since they were developed nearly a decade ago. We have worked with DOI and other agencies to improve peer review policies and other policies to strengthen the role of science in policy-

making. And we constantly monitor and bring to light challenges with regard to science-based policymaking.

STRONG SCIENTIFIC INTEGRITY STANDARDS ARE ESSENTIAL FOR GOVERNMENT ACCOUNTABILITY

The U.S. Government has long worked to ensure the integrity of the science that is maintained within executive branch agencies. Originally, this meant ensuring that a scientist's research was conducted ethically and in accordance with high scientific standards. Policies were put in place to protect human research subjects, ensure that confidential data is protected against disclosure, promote effective peer review, address scientific misconduct, and more.

In recent years, the definition of scientific integrity has been focused on ensuring that science produced and considered by the Federal Government is not censored or politically influenced, that this science fully informs public policy decisions, and that the public is more fully aware of the knowledge and data that are produced by Federal scientists that pertains to policymaking.

The importance of safeguarding scientific integrity within our Federal Government cannot be overstated.¹ Science-informed decisions made by executive agencies have direct impacts on all of our lives. Whether those decisions are determining how safe or clean our waters are to drink, or our air to breathe, or whether certain species are deserving greater protections under law, four fundamental principles should be embraced:

1. Decisions should be fully informed by (but not dictated by) science;
2. Scientists working for and advising the government should be unobstructed in providing scientific evidence to inform the decision-making process;
3. The public should have reasonable access to scientific information to be able to understand the evidentiary basis of public policy decisions; and
4. The public and Congress should be able to evaluate whether the above principles are being adhered to.

SCIENTIFIC INTEGRITY AT THE DEPARTMENT OF THE INTERIOR

Political interference in science during the George W. Bush administration penetrated deeply into the culture and practices at the Department of the Interior. Endangered Species Act (ESA) decisions in particular were a flash point for politics and science even though the statute clearly mandates the primacy of science in many ESA decisions. Political appointees falsified, fabricated, hidden, suppressed, disregarded, and tampered with science and intimidated, coerced, censored and suppressed scientists all behind closed doors. The results of a survey of Fish and Wildlife Service scientists showed high numbers of scientists knew of cases of political interference, felt that agency decision making was not sufficiently protective of species and habitats, feared retaliation, and suffered from poor morale.

For example, during the George W. Bush administration, a senior political appointee named Julie MacDonald personally rewrote endangered species determinations to preclude their protection under the Endangered Species Act. The Interior Inspector General eventually found that MacDonald had heavily edited the report and shared non-public information with special interests:²

Through interviewing various sources, including FWS employees and senior officials, and reviewing pertinent documents and e-mails, we confirmed that MacDonald has been heavily involved with editing, commenting on, and reshaping the Endangered Species Program's scientific reports from the field. MacDonald admitted that her degree is in civil engineering and that she has no formal educational background in natural sciences, such as biology.

While we discovered no illegal activity on her part, we did determine that MacDonald disclosed non-public information to private sector sources, including the California Farm Bureau Federation and the Pacific Legal Foundation. In fact, MacDonald admitted that she has released non-public information to public sources on several occasions during her tenure as Deputy Assistant Secretary for FWS.

¹Preserving Scientific Integrity in Federal Policymaking, Goldman, et al., Jan 2017. <https://www.ucsusa.org/sites/default/files/attach/2017/01/preserving-scientific-integrity-in-federal-policymaking-ucs-2017.pdf>

²Office of the Inspector General, U.S. Department of the Interior, Dec 1, 2006. <https://www.doi.gov/sites/doi.gov/files/Macdonald.pdf>

As the Inspector General noted, it was not illegal for a senior political appointee to manipulate the work of Federal Government experts. No protections existed for Federal Government scientists to defend the integrity of their work. And while scientific integrity policies have since been developed within Interior that address this kind of malfeasance, they lack the authority of law and could be rescinded at any moment.

Abuses of science at Interior, of course, were not simply done by one bad apple. UCS documented more than two dozen examples of political interference in science during the George W. Bush administration. For example:

- Bureau of Land Management (BLM) officials compromised the integrity of a BLM study by removing scientific concerns about the effects newly relaxed grazing regulations would have on public lands.
- The southwest regional director of the U.S. Fish and Wildlife Service (FWS) pressured veteran wildlife refuge manager Ken Merritt to approve plans routing a planned border wall through the Lower Rio Grande Valley national wildlife refuge. Merritt stated that regional director Benjamin Tuggle asked him in 2007 to approve the initial survey for the wall and that when Merritt refused, Tuggle called that choice a “career-ending decision.” Merritt retired from FWS shortly thereafter and the Department of Homeland Security (DHS) eventually used its authority to waive numerous environmental laws in order to go ahead with the border wall project.
- In several cases, the Minerals Management Service excluded or directed its scientists to exclude analyses that found harm to wildlife from oil exploration activities. In a June 2006 e-mail, former MMS biologist Jeff Childs warned his chain-of-command that “bringing vessels, rigs, platforms, etc. to Alaska from Outside are likely to” introduce invasive species that “may very well yield much greater significant adverse impacts than a large oil spill.” MMS then removed Childs from working on the issue of invasive species because he “refused to implement DOI [Interior] and MMS policy vis-à-vis invasive species,” which was that these findings were to be excluded from reports. A March 2010 report by the Government Accountability Office (GAO) confirmed that Childs’ analysis of invasive species impacts was deleted by management from a 2006 environmental assessment.
- Political interference by J. Stephen Griles, then deputy secretary of the Department of the Interior and a former lobbyist for the National Mining Association, derailed an Environmental Impact statement related to a rule to protect Appalachian streams and communities from a coal-mining technique known as mountaintop removal mining. Internal documents reveal Griles violated a signed statement to the Senate, in which he recused himself from issues affecting his former clients, and met no fewer than 12 times with top Bush administration officials and coal industry representatives to discuss the EIS. Griles also issued a memo stating that the EIS should “focus on centralizing and streamlining coal-mining permitting” instead of minimizing adverse environmental effects.
- Six leading ecologists who were appointed to a scientific advisory panel by the National Oceanic and Atmospheric Administration’s (NOAA) National Marine Fisheries Service (NMFS) claim that they were asked to remove science-based recommendations from an official report.
- A U.S. Fish and Wildlife Service (FWS) e-mail directive instructed its Alaskan employees who request travel not to discuss polar bears, sea ice, or climate change unless they are explicitly authorized to do so.
- High ranking officials from the Fish and Wildlife Service (FWS) and the other Federal land agencies intervened in the recovery plan for the northern spotted owl, compromising the science-based protections in order to reduce barriers to increased logging in old-growth forests.
- Agency officials knowingly used flawed science in the agency’s assessment of the endangered Florida panther’s habitat and viability in order to facilitate proposed real estate development in southwest Florida.
- Bureau of Land Management (BLM) suspended an Oregon State University (OSU) grant after university researchers published a study in the prestigious journal *Science* which concluded that logging in the wake of an Oregon fire retarded the forest’s recovery.
- The U.S. Fish and Wildlife Service (FWS) had on multiple occasions manipulated economic analyses of its plans for protecting endangered species by counting only the costs of protection while ignoring the benefits. In 2004, for

example, the FWS artificially inflated the estimated cost of protecting the threatened bull trout. Two years later, the agency downplayed the benefits of protecting the California red-legged frog.

It is important to note that some of these abuses are direct (censorship and manipulation) and some are systemic (changes in how scientific assessments are done related to endangered species).

DEVELOPMENT OF SCIENTIFIC INTEGRITY POLICIES

Under President Obama, the Department of the Interior recognized the need for changes. Indeed, Secretary Salazar didn't even wait for White House guidance on scientific integrity, issuing a Secretarial Order on September 29, 2010 establishing scientific integrity principles and directing departmental staff to develop a Departmental Manual to help protect science in the department.³

The DOI scientific integrity policy and manual that was subsequently developed was one of the best in government. Notably, DOI was only department to report out results of investigations into losses of scientific integrity.

In 2016, responding to concerns expressed by external scientists, the USFWS revised its peer review policy for endangered species listing decision. The new policy improved transparency, strengthened the guidelines for dealing with conflicts of interest and made a clear separation of the Scientific advice and policy recommendations. In fact overall the new policy was clearer and responsive to scientist concerns.

One of the major problems was how peer reviewers were chosen and how their advice was subsequently treated by the agency. When decisions are controversial it is important to carry forward the nuance of concerns, not just a thumbs up or down approach. To be sure, more improvements are still needed, including most importantly ensuring there is accountability for adhering to strong peer review guidelines. Most endangered species decisions are controversial, but it must be borne in mind that the Act is the last opportunity to halt species extinctions. Losing a species from this Earth is never trivial and conservation efforts deserve our best science.

ATTACKS ON SCIENCE UNDER PRESIDENT TRUMP

The erosion of scientific integrity in government has hit a fever pitch in the last 2 years. Barely a week goes by without hearing of scientists who are prevented from sharing their expertise with the public, or analytic work that is censored, or experts who are prevented from communicating with Congress, or data is made less accessible through websites, or science that is misrepresented.⁴ Since January 2017, the Union of Concerned Scientists has documented more than 110 attacks on science under the Trump administration, a mark that George W. Bush did not meet in his two terms.⁵ Other organizations, such as the Sabin Center for Climate Change Law, are also tracking attacks on science during the current administration.⁶

Recently, several former EPA administrators expressed concern about political interference in science at the EPA at a hearing in the House Energy and Commerce Committee. Former New Jersey Governor Christine Todd Whitman, who served as EPA administrator under George W. Bush, went on to write an Op-Ed in *The Hill* with UCS President Ken Kimmell supporting the Scientific Integrity Act.⁷ Whitman and Kimmell wrote:

We all rely on Federal scientists—and we need to be able to trust that we're getting the best available science.

But there's a problem here: Federal scientists often face political pressure that undermines their research and their ability to share it with the public. Political leaders have buried critical reports, keeping the public in the dark about real threats. They have prevented scientists from publishing their research or attending scientific conferences. They have disciplined scientists for talking about their findings to journalists.

³Secretary Ken Salazar, U.S. Department of the Interior, Order No. 3305, Sep 29, 2010. <http://www.riversimulator.org/Resources/USBR/SecOrderNo3305ScientificIntegrity.pdf>

⁴Attacks on Science tracker, UCS Staff. <https://www.ucsusa.org/center-science-and-democracy/attacks-on-science>

⁵Abuses of Science: Case Studies, UCS Staff, 2009. <https://www.ucsusa.org/our-work/center-science-and-democracy/promoting-scientific-integrity/abuses-science-case-studies>

⁶Silencing Science Tracker. <http://columbiaclimatelaw.com/resources/silencing-science-tracker/>

⁷Scientific integrity is crumbling under Trump, Ken Kimmell, Christie Todd Whitman, Jul 9, 2019. <https://thehill.com/opinion/energy-environment/452222-scientific-integrity-is-crumbling-under-trump>

Scientific integrity can be compromised by political censorship, manipulation, and/or intimidation. Here are some examples from the 20 attacks at the Department of the Interior selected from our research:⁸

- In October 2017, the U.S. Fish and Wildlife Service (FWS) reversed their long-standing requirement that a proposed city-sized development in south-eastern Arizona needed a comprehensive biological assessment to evaluate the potential impacts to endangered species in the area. The FWS official in charge of this process recently said that the only reason he reversed his decision was because he was pressured by a high-level political appointee at the Department of the Interior (DOI). The result of the FWS reversal led to the development, Villages at Vigneto, to receive a permit to build by the U.S. Army Corps of Engineers.
- The Department of the Interior (DOI) failed to consider and excluded from public view 18 memos from staff scientists who had raised scientific and environmental concerns about proposed oil and gas operations in the Arctic National Wildlife Refuge in Alaska. These documents were excluded from the DOI's draft environmental assessment, and were not released during Freedom of Information Act (FOIA) requests filed by advocacy groups.
- In an effort to censor science around adaptation to climate change, and in direct contrast to instructions from Congress, the Trump administration has defunded Landscape Conservation Cooperatives (LCCs), causing 16 of the 22 LCCs to be eliminated or placed on indefinite hiatus. LCCs are governmental research centers located across the United States that integrate science-based information on climate change and other stressors to better conserve and protect natural and cultural resources.
- A proposal from the U.S. Fish and Wildlife Service to remove the gray wolf from the Endangered Species Act (ESA) was found to be full of errors regarding wolf conservation and taxonomy. One member of the scientific panel asked to review the proposal said it seemed as if the proposal was written by cherry-picking evidence that would support de-listing.⁹
- In 2017, scientists at the Fish and Wildlife Service (FWS) completed a comprehensive analysis of the potential dangers three widely used pesticides may present to hundreds of endangered species. Two of the pesticides, chlorpyrifos and malathion, were deemed by the scientists to "jeopardize the continued existence" of more than 1,200 endangered birds, fish, and other animals and plants. However, before the scientists could publish their report in November 2017, top officials from the Department of the Interior (DOI), including then deputy administrator of the DOI, David Bernhardt, intervened. The DOI officials blocked the release of the report.
- In a 2-year period, the Department of the Interior's (DOI) Bureau of Safety and Environmental Enforcement (BSEE) had given offshore oil drillers 1,679 waivers to regulations that tested the safety of equipment, rather than collect critical data that could demonstrate the need for safety improvements. More than a third of the waivers were for engineering testing procedures for blow-out preventors, the device that failed to seal off BP's well when it erupted in 2010 and killed 11 workers during the Deepwater Horizon oil spill.
- Two National Academies of Sciences, Engineering, and Medicine (NASEM) studies were halted in mid-course for the first time in NASEM's 150-year history. One was requested by Appalachian states to better understand the impact on drinking water of mountaintop removal mining. The other was investigating how to improve safety of offshore oil and gas development as recommended by a National Commission after the Gulf oil spill.
- DOI officials removed climate change references from the press release of a USGS study on California coastline infrastructure and sea level rise.
- DOI blocked Bureau of Land Management archeologists and USGS scientists from attending prominent research conferences in their fields.
- Fish and Wildlife Services rushed a scientific assessment of the American burying beetle reportedly to avoid disrupting agribusiness. Two biologists left the project, feeling like they were being forced to do shoddy science.

⁸Science Under Siege at the Department of the Interior, Carter et al., Dec 2018. <https://www.ucsusa.org/our-work/center-science-and-democracy/science-under-siege-department-interior-2018>

⁹Scientists Find Serious Flaws in Proposal to Delist Endangered Gray Wolf, Jacob Carter, Jun 24, 2019. <https://blog.ucsusa.org/jacob-carter/flaws-in-proposal-to-delist-gray-wolf>

- The superintendent of Joshua Tree National Park was summoned to Washington to be personally reprimanded by Secretary Zinke after the Park's official Twitter account posted about climate change.
- Government scientists from the U.S. Fish and Wildlife Service (FWS) warned that the use of seismic surveys in Alaska's Arctic National Wildlife Refuge (ANWR) could further threaten the polar bear population. Officials of the Trump administration appear to ignore or censor this information from consideration as the process of opening up the refuge to oil exploration continues.

Even worse are policies and practices that structurally sideline science from policymaking, from limiting the types of science that can inform decisions to political review of scientific grants to the elimination or compromising of science advisory committees. These include:

- Restricting the science that agencies can consider to only those studies where all raw data and computer code is publicly available, precluding using information that appropriately should be kept confidential (e.g. health records, endangered species location information). This restriction on science is supposedly to improve transparency but that is a false justification. Making information publicly available is laudable but rarely is it necessary to make raw data available for a study to be understandable and carefully scrutinized. I review dozens of papers for academic journals and do not review the raw data. But requiring raw data disclosure really restricts the ability of agencies to use the best information. And in particular it prevents the use of population level studies that can be vitally important to address public health, safety and environmental threats across the Department's bureaus Indian Affairs, Land Management to Fish and Wildlife. A similar proposal at EPA received universal condemnation from scientific organizations.¹⁰
- Reducing by fiat the number of expert advisory panels agencies rely on, and favoring regulated industry interests over independent experts on those panels.
- President Trump recently issued an Executive Order cutting the number of agency advisory panels by one-third. This would not save much money since most committees are pro bono, and it would remove a critical avenue for peer review and scientific advice for absolutely no benefit other than to sideline science.
- Altering the consideration of costs and benefits to downweight public benefits, thereby calling into question the appropriateness of certain regulations, and misusing the very concept of cost/benefit analysis.
- Arbitrarily restricting the length and time frame for NEPA analyses regardless of the amount of scientific information needed, as well as circumventing the NEPA process depriving the public of the consideration of options and the information that supports different policy alternatives.
- DOI directed political appointees to begin reviewing discretionary grants to make sure that they align with Trump administration priorities. The discretionary grants include any grants worth \$50,000 or more that are intended to be distributed to "a non-profit organization that can legally advance advocacy" or "an institution of higher education." Discretionary grants are normally reviewed by independent experts who assess grant proposals using a uniform rating or scoring system established by the awarding agency. The proposals are evaluated based on criteria specific to the grant—for some programmatic grants these criteria are dictated by statutory authority (e.g., grants in the brownfields program at the EPA). Therefore, as former Secretary of Interior David J. Hayes noted, "Subjugating Congress's priorities to 10 of the Secretary's own priorities is arrogant, impractical and, in some cases, likely illegal."¹¹

I want to be clear. We don't highlight attacks on science to "protect" scientists. I am not concerned that my feelings will be hurt or that controversy is not appropriate and real. I worked with fishermen for many years—and they can be, you

¹⁰A List of Scientific Organizations That Have Supported and Opposed Limiting What Research EPA Can Use to Make Decisions, Michael Halpern, Apr 24, 2018. <https://blog.ucsusa.org/michael-halpern/a-list-of-scientific-organizations-that-have-supported-and-opposed-limiting-what-research-epa-can-use-to-make-decisions>

¹¹Trump Political Appointees Interfere in Scientific Grants Process Take Two: The Department of Interior, Jacob Carter, Jan 10, 2018. <https://blog.ucsusa.org/jacob-carter/trump-political-appointees-interfere-in-scientific-grants-process-take-two-the-department-of-interior>

might say, direct. I can take the heat and so can many of my colleagues. But censorship and manipulation of results is inappropriate use of our work, and most importantly, in bad policies.

As a decision maker in government in my previous positions at NOAA fisheries I know that lots of considerations must be weighed in any given decision. I believed then, as I do now, that the science is always important but only prescriptive if required by statute. But I also believe that the reasons a decision is made should be as clear as possible for the public. It is never appropriate to censor or manipulate evidence to support a decision being made for other reasons.

SURVEYS OF SCIENTISTS DEMONSTRATE SUSTAINED CHALLENGES

Since 2005, the Union of Concerned Scientists has conducted surveys of Federal Government scientists to measure the level of political, corporate, and other pressures on the conduct and communication of their work. A survey in 2018 was conducted in partnership with the Center for Survey Statistics and Methodology at Iowa State University. Responses were received from 4,211 Federal Government scientists across 16 agencies and departments.

The results of the survey¹² provided evidence of political interference in the science policy process at many Federal agencies. At some agencies, the situation for scientists is worse than it was during the Bush or Obama administrations.

Scientists reported high levels of censorship and self-censorship:

- 631 respondents (18 percent) at agencies that work on climate change agreed or strongly agreed that they had been asked to omit the phrase “climate change” from their work.
- 798 respondents (20 percent) reported that they had been asked or told to avoid work on specific scientific topics because they are politically contentious.
- 1,040 respondents (26 percent) reported that they had avoided working on certain scientific topics or using certain scientific terms because they are politically contentious, though they were not told explicitly to avoid them.

From the 2018 Federal scientists’ survey:¹³

- NPS: 168 respondents (76 percent) felt that consideration of political interests is a burden to scientific decision making.
- NOAA: 416 respondents (38 percent) said that a focus on business interests inappropriately influences science-based decisions; 311 respondents (29 percent) said that senior decision makers from industry or who have a financial stake in regulatory outcomes inappropriately influences decision making —“I’ve been told to avoid scientific work that might link environmental problems with the actions of U.S. industry.”
- “Industry is given power to direct policy involving regulations or scientific conclusions (and opinions based on the science) that would affect them, thus providing outcomes that benefit them. This comes at the cost of our agencies ability to accomplish our mission for the American public and natural resources we are entrusted to manage and conserve.”
- FWS: 235 respondents (69 percent) noted the level of consideration of political interests as a burden to science-based decision making.
- USGS: 328 respondents (59 percent) reported resources such as funding and staff time distributed away from work considered politically contentious.
- FWS: 213 respondents (59 percent) felt that the effectiveness of the office decreased compared with 1 year ago, and 210 respondents (58 percent) said personal job satisfaction decreased.
- NPS: 55 respondents (26 percent) reported avoiding working on climate change or using the phrase “climate change” even when not explicitly told to do so.

¹²The Good, the Bad, and the Ugly: The Results of Our 2018 Federal Scientists Survey, Jacob Carter, Aug 14, 2018. https://blog.ucsusa.org/jacob-carter/the-good-the-bad-and-the-ugly-the-results-of-our-2018-federal-scientists-survey?_ga=2.185252906.241573531.1563190776-1087000439.1563190776

¹³2018 Federal Scientists Survey FAQ. <https://www.ucsusa.org/our-work/center-science-and-democracy/promoting-scientific-integrity/2018-federal-scientists-survey>

- “There has definitely been a chill on climate research and climate change awareness,” said an NPS scientist. “Although there have been few published prohibitions to point to, there is uncertainty about what forms of retaliation might take place if the powers-that-be are unhappy with you.”
- “Consistent removal of references to climate change have hindered our ability to have honest discussions about the potential threats associated with climate change to the National Park System.”
- “Management refused permission to publish a (successfully) peer-reviewed report for fear of political repercussions.”
- FWS: 101 respondents (30 percent) reported being asked to omit certain politically contentious words from their scientific work products.
- USGS: 119 respondents (22 percent) reported they have been asked or told not to work on topics viewed as politically contentious; 169 respondents (32 percent) reported they avoid working on climate change or using the phrase “climate change” even without explicit orders to do so.
- “We are being told not to use the words ‘climate change’ in any memos that require clearance, and press releases are not being approved. This really hinders our ability to communicate with the public and lowers morale.”
- NPS scientist: “The constant attacks on science and facts by the current administration has negatively impacted scientists in the agency. Effects range from anger and frustration to depression and even opting to retire early. Twenty-five years of experience with three Federal agencies and I’ve never seen anything like this—it is appalling.”
- From the U.S. Geological Survey: “Senior USGS management has censored scientists on multiple occasions. For example, video of a research talk on earthquake early warning was removed from the USGS website because there was concern that congressional staffers might see it (the research pointed out difficulties with earthquake early warning, which had yet to be funded fully by Congress). Often politically contentious scientific results are watered down in the internal review process. If scientists do not accept edits that water down the language, they are not allowed to submit the manuscript to a journal.”
- From the National Park Service: “Consistent removal of references to climate change have hindered our ability to have honest discussions about the potential threats associated with climate change to the National Park System.”

(Note that percentages vary because not every respondent answered every question)

Science has been the engine which has driven prosperity in this country since its founding. There is no model of an effective democracy in which the best and brightest scientific minds either elect to keep their work to themselves for fear of reprisal, or, are muzzled by a frightened government unwilling to accept their findings.

THE SCIENTIFIC INTEGRITY ACT

The Scientific Integrity Act introduced by Rep. Paul Tonko (NY), and co-sponsored by over 200 members of the House, is good government legislation. It is agnostic on matters of policy; rather, it aims to ensure that policies are fully informed by science. The legislation contains many of the best practices that have been identified for the development and maintenance of a thriving Federal scientific enterprise.

Putting such legislation in place is vital because current policies, including the Department of the Interior’s Scientific Integrity Policy do not have the force and effect of law. They can and are being ignored all too often as the examples above show.

The legislation prohibits any employee from manipulating or misrepresenting scientific findings.¹⁴ On issues from endangered species to toxic chemical contamination to worker safety, political appointees have personally made changes to scientific documents (or ordered that changes be made) in order to justify action or lack of action on public health and environmental threats.

¹⁴ Attacks on Public Health and Safety that the Scientific Integrity Act Could Have Prevented, Dr. Jacob Carter, Jul 15, 2019. https://blog.ucsusa.org/jacob-carter/attacks-on-public-health-and-safety-that-the-scientific-integrity-act-could-have-prevented?_ga=2.243047298.1690950967.1563366482-1532896556.1535565435

The legislation helps ensure that government communication of science is accurate by giving scientists the right of last review over materials that rely primarily on their research. It also gives scientists the right to correct official materials that misrepresent their work. This provision makes it less likely that Federal agencies will put out inaccurate information, either intentionally or inadvertently. The legislation ensures that scientists can carry out their research—and share it with the public—without fear of political pressure or retaliation. It enables scientists to talk about their research in public, with reporters, in scientific journals, and at scientific conferences. The bill empowers Federal scientists to share their personal opinions as informed experts, but only in an individual capacity, not as government representatives. This is essential due to the amount of censorship and self-censorship that has been documented on issues from climate change to food safety.

The legislation requires agencies to devote resources to designate scientific integrity officers and provide Federal employees with appropriate training to help prevent misconduct. Some agencies have developed policies that have no enforcement mechanisms, rendering them virtually meaningless.

The legislation would *not* empower scientists to speak for their agency on policy matters. It would not enable scientists to circumvent the agency leadership with regard to policy decisions. It would be clearly applied to expressing views with regard to their scientific expertise.

CONCLUDING REMARKS

Not all attacks on science are matters of scientific integrity. Policy decisions that fail to consider scientific evidence are just that and harm our Nation. But allowing scientists to be free from censorship, manipulation of their results or intimidation would go a long way toward improving the decision process. And pushing back on other attempts to sideline science from policymaking is also important for accountability, public trust, and the overall strength of environmental and public health decisions.

The United States has a strong and vibrant science community. That community is part of the strength of our democracy. But when science is sidelined from public policy or scientific integrity is compromised public health, safety and our environment is undermined. Simply put, we cannot make good policy in the public interest unless we fairly consider the weight of scientific information fully.

Thank you Mr. Chairman and Ranking Member, I would be happy to respond to questions.

QUESTIONS SUBMITTED FOR THE RECORD TO DR. ANDREW ROSENBERG, DIRECTOR OF THE CENTER FOR SCIENCE AND DEMOCRACY, UNION OF CONCERNED SCIENTISTS

Questions Submitted by Rep. Grijalva

Question 1. In his opening statement, Ranking Member Rob Bishop referred to the decreasing number of scientific integrity complaints at the Department of the Interior during the Trump administration. Is the number of scientific integrity complaints an adequate measure of a scientific integrity problem in an organization?

Answer. No, the number of complaints is dependent on many factors, importantly including whether agency scientists feel secure and trust the process. Our survey of DOI scientists shows a marked decline in trust of agency leadership. That is a significant factor in changes in formal scientific integrity (SI) complaints. In addition to a lack of confidence in the process by the aggrieved party, scientists concerns over retaliation by colleagues or supervisors for speaking out, and incidents which may have been reported by the aggrieved party but not properly documented, many complaints are dealt with informally and through consultation that is not documented.

Specifically, at the Department of the Interior, we note that the Agency only lists two scientific integrity complaints in 2018. However, UCS has documented eight instances of political pressure on science and scientists from publicly disclosed information.

- Deputy Secretary David Bernhardt issues Order No. 3369 that will restrict scientific studies from being used to inform decisions at DOI.
- Senior officials at DOI dismissed evidence showing the value of national monuments via increased tourism and archaeological discovery in a review of monuments conducted by the agency.

- The Trump administration rescinded Director's Order #100, which established that management of national parks would be made using the best available science.
- The U.S. Geological Survey (USGS) began requiring scientists to get permission to speak to reporters in July 2018, representing a dramatic change from decades of past media practices.
- In 2018, the DOI restricted its scientists from attending two national prominent scientific meetings, the annual meeting of the American Geophysical Union (AGU) and the annual meeting of the Society for American Archaeology.
- In January 2018, the Trump administration instructed political appointees to review grants to ensure they aligned with 10 priorities set by the administration. Typically, scientific grant proposals are reviewed and awarded based on their intellectual merit, not political priorities.
- Officials from the Department of the Interior (DOI) stripped language that was written by Federal scientists on a key environmental impacts letter to the U.S. Customs and Border Protection (USCBP) about the U.S.-Mexico border wall during December, 2018. The deleted sections, written by Federal biologists and wildlife managers from the U.S. Fish and Wildlife Service (FWS), brought up scientifically valid concerns about the potential impact of the border wall on endangered species whose populations are located along the border.
- In September 2018, two university scientists ended a contract with the Fish and Wildlife Service saying that the administration was pressuring them to use inaccurate methodologies in their work.

Finally, scientific integrity policies do not address many of the ways that science is sidelined from policy making, including by politicizing or disbanding science advisory committees; weakening the department's interpretation of laws such as the Endangered Species Act; reassigning staff in a retaliatory manner; and allowing for political review of scientific grants, all of which has been well-documented.

1a. The Union of Concerned Scientists has conducted surveys of scientists in several Federal agencies, including those within the Department of the Interior. Is this a more accurate way to measure the extent of a scientific integrity problem at an agency?

Answer. There is both anecdotal and quantifiable evidence that illustrates the challenges of Agency self-reporting scientific integrity violations. Relative to that process, the scientist survey conducted by UCS is a more accurate way to capture more data about allegations of scientific integrity violations. The data from the surveys paint a bleak picture of how this Administration is censoring scientists, both directly and indirectly, subjecting critical work force capacity to harmful atrophy, and directly interfering with the work conducted by scientists. Yet even our data only scratches the surface of what scientific integrity challenges may exist. Our survey results are limited by the number of responses we receive, and without an Agency mandating participation in the study, we can only analyze and report on what we hear back.

It is also of concern that reporting by the agency is limited. Even for complaints that are reported, the resolution of those cases is unclear. Overall, more transparency by the agency would help improve the trust scientists have in the process.

1b. Can you briefly describe some of the key findings of those surveys?

Answer. Our 2018 survey results show that scientists are concerned about work force reductions. Seventy-nine percent of respondents reported work force reductions occurring during the 2017–2018 frame, and 87 percent of those respondents reported that such reductions made it more difficult for agencies to fulfill their missions. Our results also show concern about political interference. Twenty percent of all respondents named “influence of political appointees in your agency or department” or “influence of the White House” as one of the greatest barriers to science-based decision making. Fifty percent of all respondents either agreed or strongly agreed that consideration of political interests hindered their agencies' ability to make science-based decisions. Respondents from the EPA showed particular concern about political influence, with 81 percent agreeing or strongly agreeing that it was a hindrance, and nearly a third naming it as a top barrier, to science-based decisions.

Censorship has also been a persistent problem, especially at the National Park Service where scientists struggle to be accurate in their work without the ability to mention climate change and its impacts. Our Survey results show that 18 percent

of respondents (including 47 percent at NPS and 35 percent at EPA) had been asked to omit the phrase “climate change” from their work. And 20 percent of respondents reported engaging in self-censorship regarding climate change.

These issues of course manifest in low morale and low confidence in any existing scientific integrity policies. Many respondents reported decreased job effectiveness and satisfaction in addition to low morale. Across all agencies, 39 percent of responding scientists reported that the effectiveness of their divisions or office had decreased over the past year, while only 15 percent reported an increase. Forty-two percent of respondents said that they would be willing to report a scientific integrity violation and trust that they would be treated fairly.

Please refer to the attached summaries of our survey at the end of my responses.

Question 2. In his testimony, Mr. Daren Bakst drew attention to the fact that scientific integrity violations have occurred under previous administrations at the Department of the Interior. Are the attacks on science under the Trump administration at Interior a reflection of the status quo or is this administration unique?

Answer. Mr. Bakst conflated a wide range of issues of scientific misconduct, genuine policy differences, the interpretation of legal mandates and scientific integrity as defined in our work and agency policies. That makes his statements rather confused and unclear. It is important to note, that issues such as scientific misconduct, which certainly occurs though it has been shown to be rare, have a mechanism in place to resolve issues—peer review, expert panels, and consideration of weight of evidence rather than any one study for example. So too do issues of legal mandates (adjudication) and even policy differences (congressional oversight, adjudication). But the system for political suppression or manipulation of science has no formal system for resolving problems that includes real accountability.

Scientific integrity violations have been documented as far back as the Eisenhower administration. However, the degree to which science has been politicized, and the ferocity with which this Administration and its allies attack science they find too inconvenient for their goals, is both alarming and unprecedented. As I noted at the hearing, we have documented over 100 attacks against science by the Administration to date. To put this into historical context, the Trump administration has attacked science more often in less than 3 years compared to 8 years of the President George W. Bush administration. The number is certainly shocking, but what is most important to guard against is not simply the next attack, but the consequences of those attacks for the American people—less public health protection, poorer environmental quality with impacts on our quality of life, less safety and resilience of our communities. And these are often impacts that will be with us for years if not decades. Further, we are concerned about the potential shift in political culture that would make attacks on science commonplace, and censoring of scientists acceptable. Neither are precedents for a successful democracy.

Question 3. In his testimony, Mr. Daren Bakst highlighted EPA’s “secret science” rule. The Department of the Interior issued the nearly identical Secretarial Order 3369 “Promoting Open Science.” Can you explain how these initiatives will affect science and scientists at Federal agencies like the Department of the Interior?

Answer. To be clear, while scientists at Federal agencies will certainly be impacted, the clear losers of allowing such policies to be enacted at EPA and DOI are the American people. There is a thorough record of the “secret science” rule, first considered by the House Science Committee under the leadership of then-Chairman Lamar Smith, where the intention of this policy was laid bare. At its core, policy proposals like EPA’s “secret science” rule and Secretarial Order 3369, serve to restrict the science that can be considered by agency’s when developing responses to critical public health challenges posed by climate change.

As my colleague Michael Halpern once said about the EPA rule, “This is a fundamentally flawed concept wholly conceived and promoted by industry lobbyists to limit the types of science that EPA can use in making decisions. Not even the EPA Office of the Science Advisor had any clue what was going on until the proposal was published. When legislation that tried to accomplish the same goal repeatedly died on the vine in Congress, they tried to ram it through the agency. The proposed rule should be framed in the National Archives as a notable example of how a government agency can be co-opted by extremists and failed tobacco lobbyists.”

Any initiative that makes it harder for scientists at Federal agencies to have access to the science they need to conduct their work is problematic. When such initiatives also leave open the opportunity for third-parties to challenge the underlying data, the work of the agency slows and the role of the Federal scientist transforms from analyzing to defending. Much like a trojan horse, these initiatives are

specifically designed to put scientists on the defensive thereby slowing the work of the agency.

Rather than promote transparency, the Secretarial Order further politicizes the process of science informing policy choices, because it gives the Secretary or his designee the authority to pick and choose which science can be used despite so-called transparency concerns. And, the order is specifically designed to circumvent the process by which scientists determine the weight of evidence and place that into political hands. That inherently means that the decisions that are made will be more political, less defensible, and the policies will be less effective for a whole host of reasons.

When the rule was announced at EPA, then-Administrator Pruitt said that the order was consistent with guidelines from specific scientific organizations, all of which subsequently disavowed and distanced themselves from the rule. Dozens of scientific organizations urged that the rule be scrapped; not a single mainstream scientific organization supported it.

Please refer to the attached comments submitted by UCS to the EPA rule at the end of my responses.

Question 4. Last month, President Trump issued an Executive Order, titled "Evaluating and Improving the Utility of Federal Advisory Committees." This order gives Federal agencies until September 30, 2019 to terminate at least one-third of all of their Federal advisory committees.

4a. Can you please explain the role of these Federal advisory committees?

Answer. Federal advisory committees are formal bodies comprised of experts that can provide advice to policy makers on highly technical matters, particularly on issues relating to science. The EO is a purely cosmetic act to cut advisory committees without rhyme or reason. It is the very definition of arbitrary and capricious. This extends the administration's attacks on receiving independent science advice as we have seen at both EPA and Interior—appointing poorly qualified advisors with major conflicts of interest, excluding highly qualified advisors on contrived grounds, failing to hold advisory committee meetings on major science based actions. Now, committees will be eliminated wholesale with no stated rationale. It can't be to save money since most advisors serve pro bono (as I have on numerous committees). And it won't allow agencies to access the best talent.

4b. How does this Executive Order affect scientific integrity at Federal agencies?

Answer. First, the order is arbitrary in setting what number of committees to eliminate. Second, the justification for seeking to eliminate committees (cost), is not supported by any evidence provided to date. What it means is that agencies will not have the independent advice of external scientists to guide their work. That means, once again, that the role of science will likely be weakened in the decision process and policy choices will be made on a wholly political basis.

4c. Based on what we have seen so far in the Trump administration, how do you think agencies will decide which advisory committees to terminate?

Answer. At this point it is unclear. There is no consistency in approach or rationale. Agencies must just report which committees will be canceled to meet an arbitrary and capricious standard.

Question 5. Dr. Rosenberg, please describe the difference between scientific integrity violations and research misconduct that might occur among agency scientists.

Answer. Research misconduct describes the behavior of the scientist, scientific integrity violations describe the behavior of *others* toward the scientist. The former is referring to relatively rare cases where a scientist intentionally circumventing or corrupting the scientific process rendering their results suspect. The latter is others misconstruing, suppressing or manipulating scientific results or attacking scientists personally in order to corrupt the evidence and misrepresent the science.

5a. What mechanisms are in place to address research misconduct? Are such mechanisms sufficient?

Answer. There are a host of mechanisms, from peer review by knowledgeable experts, to science advisory panels, institutional review boards and other checks and balances that prevent, or in some cases bring to light, research misconduct. But in addition, when used in a policy context, adhering to a standard of relying on the weight of evidence rather than any one study generally reveals aberrant results. These mechanisms can always be strengthened, better funded and more rigorously applied, but research misconduct is relatively rare, and rarer still is an inappropriate study given significant weight in policy making.

5b. What mechanisms are in place to address scientific integrity violations? Are such mechanisms sufficient?

Answer. Scientific integrity policy at Federal agencies provide some, but a rather inconsistent mechanisms to raise issues of political interference in science within the agency. But there is no full accountability to meet the policies. Inspector General Offices have not taken on these challenges in most cases. Accountability, reporting and follow through have all been difficult to varying degrees at different agencies.

5c. Is it necessary to have separate policies that address scientific integrity violations and research misconduct?

Answer. Yes, these are entirely separate issues and should not be conflated.

Question 6. Dr. Rosenberg, many believe that transparency in research is important to public accountability. Can you describe what methods scientists currently use to share data and research methods? In addition, can you address efforts to exploit the idea of transparency in science to undermine science-based policy making?

Answer. Transparency in research is important. But being clear on what steps lead to greater transparency is essential. Sharing information on what studies were considered and how important an agency believed each to be in the decision it made is a major step. Also, agency decision records should clearly state why a specific policy choice was made and not try to contort the science to support a decision. Scientific evidence does not mandate any particular policy choice, but it should inform policy makers and the public about the efficacy of that choice. If a decision is being made for other reasons (e.g. to allow businesses time to adjust) then say that rather than pretend that decision is based on science.

Unfortunately, some interest groups have falsely claimed that transparency depends upon the sharing of raw data and other underpinning of a particular study. But from a scientists perspective, I want to understand the methods used to collect the data, the basic patterns in the data and how the results were then derived. I don't want to look at each data point unless one is given undue influence, which should be revealed in the data methods and patterns. Requiring release of raw data immediately precluded a wide range of information that must be kept confidential for privacy reasons. That in turn means that certain kinds of studies such as epidemiological analyses cannot be considered, but they provide critical public health information. So, chasing after raw data really is a trick to preclude epidemiological information.

Question 7. Dr. Rosenberg, please describe the results of your survey of scientists at the Department of the Interior and how these measure up to previous administrations.

Answer. As noted above, we have seen marked increases since the previous administration of concerns over political interference and special interest influence on science and policy making. There are also major increased concern over the capacity of the agencies in Interior to meet their mission because of staff losses and political micromanagement. Morale is very low and job satisfaction is declining.

Question 8. Dr. Rosenberg, please describe other ways that the Department of the Interior officials have sidelined science from the policy process or otherwise politicized science in ways previously unseen. Are there methods other than scientific integrity policies that would help prevent these kinds of practices?

Answer. We have catalogued attacks on science in the department as detailed in my written testimony. Not all are issues of scientific integrity. Some attacks are the result of political appointees ignoring input from professional staff, including scientists, others are political micromanagement of grant programs, or mandating unscientific standards such as a time limit for projecting future impacts, or page limits on analyses. Overall, the ethos of the department has turned to a focus on political rather than evidence-based decisions.

Question 9. Dr. Rosenberg, why do you think that formal scientific integrity complaints at the Department of the Interior are down? Does this demonstrate that the Trump administration is more science-friendly than the Obama administration?

Answer. As I stated in my answer above—there may be a number of reasons why the number of formal scientific integrity complaints at the Department of the Interior do not match up with the number of scientific integrity violations we have documented in our work. Censorship, intimidation, lack of confidence in the process, low morale, or a combination of factors could all be involved. Whether by this metric

or another, the Trump administration has demonstrated a unique hostility toward science that has not been seen in other administrations.

Question 10. Dr. Rosenberg, please describe how violations of scientific integrity within Agencies can impact the lives of people around the country.

Answer. Inherently, scientific integrity violations mean that the American public has less information and it is of poorer quality. It also means that decision makers at other levels of government have less high quality information. That puts public health, safety and environmental quality at risk.

Question 11. Dr. Rosenberg, how do strong scientific integrity policies operate to protect against attacks on science that we have seen in this Administration and others?

Answer. Strong policies set a presumption that scientific information will be available to the public and decision makers without political interference. While the policies are not fully enforceable, at least these protections become part of the agency's mandate.

Question 12. Dr. Rosenberg, why are strong scientific integrity policies needed to protect the Federal work force from stagnation and attrition?

Answer. Scientists want to do their work and have their efforts be fairly considered in the policy process. They want the results of their efforts to be meaningful and impactful. When the results are manipulated or suppressed, that really undermines the reason that people do the work they do. These are highly trained professionals with years or decades of training and experience. They have chosen public service and are committed to working in the public interest. If their work is suppressed or manipulated it goes against the core of their motivation for doing the hard work of science in the public interest.

Question 13. What are the impacts to the country of a Federal work force that lacks scientists to do research?

Answer. Decisions become more wholly political, and are made on the basis of influence, not evidence. Scientists need to be on the front lines. Their research is of the highest quality, but is directed by the needs of the agency and the country. Without them, why would we expect our policy decisions to be as good as they should be?

Questions Submitted by Rep. Cox

Question 1. There have been recent reports of Federal agencies looking to hide or keep from the public studies that show the negative impacts climate change will have on farmers across the country. As someone who represents a district that relies heavily on natural resources and is the No. 1 agriculture producing district in California, how should the Department of the Interior be coordinating with other Federal agencies to collectively determine what effects climate change is going to have on districts like mine?

Answer. While I agree that there should be some degree of inter-Agency coordination on this issue, and many others, that relate to climate change, any specific recommendation I might give to the Department would begin with ensuring that all agency scientists are able to communicate their findings to each other, other agencies, Administration officials, and the public, without fear of censorship or retribution. My training is in fisheries and marine resources and fishermen share many of the same challenges as farmers. I know from my own experience that business and families that depend directly on natural resources need as much information as they can get about what is coming at them. Climate change is having a definite, major impact on farming. This is a matter of evidence not belief. Farmers need the best information they can get to plan for their businesses in a changing world. Always have, always will.

Question 2. Other recent reports have described how the effects of climate change threaten our national parks. My district in California's Central Valley is adjacent to some of our Nation's most-renowned national parks. My constituents enjoy our proximity to these natural treasures. Fresno, part of which I represent, benefits from the travel and tourism activity generated by nearby parks and public lands. It's clear that climate change is happening and will continue to impact our parks.

2a. How should Interior be ensuring that the National Parks Service has the information to plan accordingly for climate change?

2b. If we don't have the science, what are we going to miss?

Answer. Any specific recommendation I might give to the Department would begin with ensuring that all agency scientists are able to communicate their findings to each other, other agencies, Administration officials, and the public, without fear of censorship or retribution. Certainly, without having access to science, we would lack any information to make informed policy choices on how best to preserve our public lands and otherwise respond effectively to a changing, rapidly warming, climate. Every national park needs to have a plan for the changing climate. And every park needs to play a key role in educating the public about climate change. These are living laboratories where Americans can see with their own eyes how nature works and how it is changing. The parks should be part of a great effort for citizen science and science education, not a political tool. Without an understanding of the science of climate change we will be less educated, aware, prepared and engaged.

Questions Submitted by Rep. Horsford

Question 1. Where I come from, state and local governments face serious land management and resource challenges. With limited access to water, high threat of wildfires, and the spread of invasive species, Nevada land managers face significant challenges.

1a. Dr. Rosenberg, should city and state officials in Nevada have the ability to consult directly with the Department of the Interior experts about how they expect water resources of fuel loads to change in the future, or should people in Washington decide whether those conversations should happen?

Answer. The information produced by experts at the Department of the Interior ought to be clear, complete, and free from political influence so that city and state decision makers can rely on such information without concern over the authenticity of the science. To that end, it is important that scientists at the Department are able to communicate their findings to each other, other agencies, Administration officials, and the public, without fear of censorship or retribution. Local officials need to be able to have access to the expertise that they need to do their critical jobs. But no local agency has the scientific expertise of the Federal Government. Therefore it is incumbent upon the Federal Government to make that expertise as available as possible to all levels of government and the public.

1b. In follow up to issue of transparency, should reporters who work for local newspapers, including those in Nevada, be able to speak directly with taxpayer-funded Federal Government experts about their research and expertise? Is it right that they should be limited to consult press releases from DC political appointees?

Answer. Similar to my response above, it is important that scientists at the Department are able to communicate their findings to each other, other agencies, Administration officials, and the public (which includes members of the press), without fear of censorship or retribution.

The CHAIRMAN. Thank you very much, Dr. Rosenberg.

The Chair now recognizes Mr. Joel Clement. Sir, the floor is yours.

STATEMENT OF JOEL CLEMENT, SENIOR FELLOW, ARCTIC INITIATIVE, BELFER CENTER FOR SCIENCE AND INTERNATIONAL AFFAIRS, HARVARD UNIVERSITY, CAMBRIDGE, MASSACHUSETTS

Mr. CLEMENT. Thank you, Chairman Grijalva and Ranking Member Bishop, for the opportunity to testify about the challenge of ensuring integrity, both scientific and otherwise, at the Interior Department.

As a 7-year senior executive at Interior and someone who stays in close touch with the scientists and experts still there, I would like to offer some insight into current conditions at the agency. By way of example, I will recap how I was treated by agency leadership, and I will conclude with some recommendations to address the problems we are here to discuss.

As Director of the Office of Policy Analysis, it was my job to understand the most recent scientific and analytical information regarding matters that affected the mission of the agency and to communicate that information to agency leadership. I never assumed that agency leadership would make their decisions based entirely on that information, but I did assume they would take it into consideration.

And that proved true for the first 6 years of my time at Interior. It all ended with the arrival of the Trump political team which, as I will describe later on, has sidelined scientists and experts, flattened the morale of the career staff, and by all accounts is bent on hollowing out the agency.

The career staff at Interior are not partisan in their work. They have a job to do and they do it well. Of course, they know that an incoming Republican administration is likely to favor resource extraction over conservation, and the vice versa is true, but they have pledged to support and defend the Constitution and advance the mission of the agency, regardless of their beliefs.

But what if their leaders are trying to break down the agency? What if their directives run counter to the agency mission, as directed by Congress? What if the political appointees are intentionally suppressing the science that indicates they are doing more harm than good, and putting Americans and the American economy at risk?

These days, career staff have to ask themselves these questions nearly every day, or at least decide where their red line is. For me, the Trump administration crossed it by putting American health and safety at risk and wasting taxpayer dollars. Here is how that went down.

Science tells us that rapid climate change is impacting every single aspect of the agency mission, and it was my job to evaluate and explain these threats. For example, as the Federal trustee for American Indians and Alaska Natives, Interior is partially responsible for their well-being. But with over 30 Alaska Native villages listed by the Government Accountability Office as acutely threatened by the impacts of climate change, it should be a top priority for Interior to help get these Americans out of harm's way as soon as possible.

I was working with an interagency team to address this issue and speaking very publicly about the need for DOI to address climate impacts, and I paid the price. One week after speaking at the U.N. on the importance of building climate resilience, I received an evening e-mail telling me I had been reassigned to the auditing office that collects royalty checks from the oil, gas, and mining industries. I have no experience in accounting or in auditing. It was pretty clear to me and my colleagues that this was retaliation for my work highlighting Interior's responsibilities as they pertain to climate change and protecting American citizens.

So, I blew the whistle. I was not alone. Dozens of other senior executives received reassignment notices in that night's purge. The ensuing Inspector General investigation revealed the political team had broken every single one of the Office of Personnel Management guidelines for reassigning senior executives, and they left no paper trail to justify their actions.

Very importantly, in my view, they sent a signal that scientific information, and the needs of Americans in danger, were no longer a priority. This is just one example of how the agency has been sidelining experts, but there are many more instances of the agency directly suppressing science.

Among them are reports that Secretary Bernhardt ignored and failed to disclose over a dozen internal memos expressing concern about the impacts of oil and gas exploration on the Arctic National Wildlife Refuge; Former Secretary Zinke canceling a National Academy study on the health impacts of coal mining right before lifting a moratorium on coal leasing; Zinke again instituting a political review of science grants led by an old football buddy that has bottlenecked research funding and led to canceled research; and the U.S. Geological Survey eliminating their entire climate change mission area.

The list goes on and on. Not only does this group ignore science and expertise, they cross the line by actively suppressing it at the expense of American health and safety, our public lands, and the economy. They are intentionally leaving their best player on the bench. This is not what public service looks like.

Political appointees have shown no hesitation to reassign, relocate, or otherwise make life difficult for career employees. As a result, agency scientists are self-censoring their reports and deleting the term “climate change” to avoid being targeted. They are being barred from speaking to reporters without advance permission. They face new barriers to attending professional conferences. And their work is being incompletely communicated to the public if it is shared at all.

It goes without saying that this is a betrayal of the public trust and that this culture of fear, censorship, and suppression is cheating American taxpayers. These are dark times for science. The abuses have been taken to an extreme, and I am sure nearly everyone in this room agrees we need to do better on these things.

More broadly, we have seen a collapse of ethics and integrity norms at the agency in general. The question is, what can Congress do now to ensure that the Federal science enterprise and the agency itself can rebound?

I have a few recommendations that I will not have time to get to as my time is up. I can certainly address those during the Q&A. But thank you very much again for the opportunity to testify.

[The prepared statement of Mr. Clement follows:]

PREPARED STATEMENT OF JOEL CLEMENT

Thank you Chairman Grijalva and Ranking Member Bishop for the opportunity to testify about the challenge of insuring integrity, both scientific and otherwise, at the Interior Department.

As a 7-year senior executive at the Interior Department, and someone who stays in close touch with the scientists and experts still holding strong in the agency, I'd like to offer some insight into current conditions at the agency. By way of example, I'll recap how I was treated by agency leadership as I continued to call for strong actions to protect vulnerable Americans threatened by the impacts of climate change. I'll conclude with some recommendations to address the problems we're here to discuss.

WHEN TO SAY “ENOUGH?”

As Director of the Office of Policy Analysis, it was my job to understand the most recent scientific and analytical information regarding matters that affected the mission of the agency, and to communicate that information to agency leadership. I never assumed that agency leadership would make their decision based entirely upon that information, but I did assume that they would take it into consideration. That proved true for 6 years as my office provided the latest economic and scientific information to leaders looking for sustainable solutions.

That all ended with the Trump political team, which, as I’ll describe, has sidelined scientists and experts, flattened the morale of the career staff, and by all accounts is bent on hollowing out the agency.¹

The career staff at Interior are not partisan in their work, they have a job to do and they do it well. Of course they know that an incoming Republican administration will focus on resource extraction rather than conservation, but they’ve pledged to support and defend the Constitution and advance the mission of the agency, not their own political agenda. They do their job.

But what if their leaders are trying to break down the agency? What if their directives run counter to the agency mission as dictated by Congress? What if political appointees are intentionally suppressing the science that indicates they are doing more harm than good, and putting Americans and the American economy at risk?

These days career staff have to ask themselves these questions nearly every day, or at least decide where their red line is. For me, the Trump administration crossed it by putting American health and safety at risk and wasting taxpayer dollars.

PUTTING AMERICANS AT RISK

Rapid climate change is impacting every single aspect of the agency mission, and it was my job to evaluate and explain these threats. For example, as the Federal trustee for American Indians and AK Natives, Interior is partially responsible for their well-being. With over 30 Alaska Native villages listed by the Government Accountability Office as acutely threatened by the impacts of climate change, it should be a top priority for Interior to help get these Americans out of harm’s way as soon as possible.

I was working with an interagency team to address this issue and speaking very publicly about the need for DOI to address climate impacts, and paid the price. One week after speaking at the United Nations on the importance of building resilience to climate change, I received an evening e-mail telling me I’d been reassigned to the auditing office that collects royalty checks from the oil, gas, and mining industries. I have no experience in accounting or auditing.

It was pretty clear to me and my colleagues that this was retaliation for my work highlighting Interior’s responsibility to address climate change and protect American citizens, so I blew the whistle.

I was not alone. Dozens of other senior executives received reassignment notices in that night’s “purge.” The ensuing Inspector General investigation revealed that the political team had broken every single one of the Office of Personnel Management guidelines for reassigning senior executives, and left no paper trail to justify their actions.² They checked every box for management failure, including discrimination, as over a third of the reassigned executives were American Indian. Most importantly, in my view, they sent a signal that scientific information, and the needs of Americans in danger, were no longer a priority.

This is just one example of how the agency has been sidelining experts and science. Dr. Caffrey’s story is another. To make matters worse, there are many instances of the agency directly suppressing science. Among them are reports of Secretary Bernhardt ignoring and failing to disclose over a dozen internal memos expressing concern about the impacts of oil and gas exploration in the Arctic National Wildlife Refuge; former Secretary Zinke canceling a National Academy study on the health impacts of coal mining right before lifting a moratorium on coal leasing; and Zinke instituting a political review of science grants, led by an old football buddy, that bottlenecked research and led to canceled studies.

The list goes on and on and other witnesses will provide examples. Not only does this group ignore science and expertise, they cross the line by actively suppressing

¹ Science Under Siege at the Department of the Interior (2018): <https://www.ucsusa.org/our-work/center-science-and-democracy/science-under-siege-department-interior-2018>.

² Reassignment of Senior Executives at the U.S. Department of the Interior (2018): <https://www.doi.gov/reports/reassignment-senior-executives-us-department-interior>.

it—at the expense of American health and safety, our public lands, and the economy. They are intentionally leaving their best player on the bench.

This is not what public service looks like.

“THEY BROKE IT”

The morale has bottomed out in the agency as career staffers are looking over their shoulders and trying to keep their heads down. Political appointees have shown no hesitation to reassign, relocate, or otherwise make life difficult for career employees—particularly the scientists and experts that they consider a threat. As I noted in my testimony to the Science Committee last week, agency scientists are self-censoring their reports and deleting the term climate change to avoid being targeted by political appointees, they are barred from speaking to reporters without advance permission from the agency, they face new barriers to attending the professional conferences that are part of the job, and their work is being incompletely communicated to the public, if shared at all.

Secretary Bernhardt has even restricted telework despite its overwhelming success in achieving management outcomes; unable to treat professionals like professionals, he is now struggling to treat them like adults.

These conditions do not reflect a culture of scientific integrity, but a culture of fear, censorship, and suppression that is keeping incredibly capable Federal scientists from sharing important information with the public or participating as professionals in their field.

I’ll never forget one conversation I had with a career staffer who was bearing witness as the political appointees hollowed out the agency and crushed morale. Practically in tears, she quietly said “they broke it, they broke the agency.”

This is no accident. As empowered by Congress, an effective Interior Department with high-functioning bureaus and offices operates on behalf of Americans to ensure the conservation or sustainable use of our natural resources into the future, it looks out for American Indians and Alaska Natives, and it prevents private industries from laying waste to public lands.

If, however, the agency is being led by representatives from those very same industries, it is in their interest to hobble the agency so that even when they are no longer in the driver’s seat, the agency will struggle to enforce regulations and stand against them. An added bonus to hobbling the agency and its scientific enterprise is that it also compromises the public’s trust in the agency, furthering an industry-first agenda.

It goes without saying that this is a betrayal of the public trust.

RECOMMENDATIONS

These are dark times for science, the abuses have been taken to an extreme and I’m sure nearly everybody in this room agrees that we have to do better. More broadly, we’ve seen a collapse of ethics and integrity norms at the agency. The question is what can Congress do now to ensure that the Federal science enterprise and the agency itself can rebound?

I have four suggestions, for starters.

1. Support, strengthen, and pass the Scientific Integrity Act—it provides essential protections to prevent political interference in science and the harassment of scientists and experts. DOI’s existing policy is one of the best and yet it has proven of very little use in the face of hostile leadership. We need a law in place to put some teeth in these policies and provide reliable enforcement.
2. Require that scientific integrity be one of several new ethics and integrity goals that must be included in the agency’s GPRA (Government Performance and Results Act) performance plan. The integrity and ethics failings among the political appointees at DOI are legion, and Congress should require that OMB do its job by collecting quarterly reports on DOI’s progress addressing these measures, and providing them to Congress in a timely fashion.
3. The Federal science enterprise depends upon a full complement of staff and scientists who keep it firing on all cylinders. Right now it’s barely running due to harassment and long-term vacancies. Congress should consider setting a ceiling for science vacancies, and, when that threshold is crossed, require that the agency prioritize science hires and make it easier to attract and hire new talent.
4. Multiple lines of scientific evidence have definitively shown that we are in the early stages of a catastrophic climate crisis. Risks to American health and

safety and the American economy are rapidly increasing, and the costs of adapting and responding to the crisis will soon skyrocket. Congress should require Interior to “climate-proof” its operations by (a) placing an immediate moratorium on new fossil fuel leases on Federal lands and sunseting unused leases, (b) re-purposing leasing staff to develop and implement a long-term carbon sequestration plan for public lands ecosystems, (c) reinstating and implementing the agency’s climate change adaptation policy, and (d) reinstating the National Park Service Director’s Order #100, generated in collaboration with the National Academy and at least one Nobel Prize laureate, which modernized NPS management approaches to address 21st century issues such as climate change.

Thank you again for the opportunity to testify to the Committee.

Addendum 1: Links to Whistleblower OpEd and Resignation Letter

By way of describing the circumstances that led to my whistleblower action and my eventual resignation 10 weeks later, I have submitted two additional documents for the record, my *Washington Post* Op-Ed the day I filed the whistleblower complaint, and my resignation letter. These documents can also be found at the following links:

https://www.washingtonpost.com/opinions/im-a-scientist-the-trump-administration-reassigned-me-for-speaking-up-about-climate-change/2017/07/19/389b8dce-6b12-11e7-9c15-177740635e83_story.html?utm_term=.ba43538db554

and

<https://apps.washingtonpost.com/g/documents/national/read-joel-clements-resignation-letter/2566/>

Addendum 2: Integrity Standards

During my time as Director of the Office of Policy Analysis, I worked with staff to articulate our core values as an organization. I think it’s worth listing those values here to demonstrate the integrity of career staff at Interior, and what is at stake when the political leadership does not share or demonstrate those values:

Core Values

The Office of Policy Analysis (PPA) embraces the following set of core values associated with its analysis, work products, staff, professional relationships, and coordination activities:

- *Objectivity.* PPA work products are based on objective analysis, responsive to decision makers’ needs, bureau-neutral, well-written, and intellectually honest. Neutral competency is essential to the integrity of the office.
- *Quality.* PPA staff are held to high standards and have the ability to approach work assignments in an analytic, systematic, and task-oriented fashion. They are able to work independently or as part of a team, can handle multiple assignments simultaneously, and are able to proactively respond to emerging issues.
- *Opportunity.* The PPA leadership team believes in a level playing field for all staff and ensures that staff members are valued and recognized for their contributions. Staff members have short- and long-term opportunities to strengthen their intellectual capital both through work assignments and training. PPA fosters cognitive diversity in an open, interactive work environment to facilitate the free exchange of ideas. Leadership provides mentorship for junior staff with an eye to developing the leaders of the future, and in general endeavors to establish an office that is seen as a good career move for emerging leaders.
- *Collaboration.* PPA leadership and staff are encouraged to develop productive professional relationships both internal and external to the office, including but not limited to engaging in collaborative work with the bureaus, other DOI offices, other government agencies, and academia.
- *Expertise.* PPA has the diversity and intellectual capacity to effectively address the wide range of issues that face the Department and its diverse bureau responsibilities.
- *Integrity.* PPA staff demonstrates integrity through honesty, efficiency and reliability.

QUESTIONS SUBMITTED FOR THE RECORD TO MR. JOEL CLEMENT, SENIOR FELLOW,
ARCTIC INITIATIVE, BELFER CENTER FOR SCIENCE AND DEMOCRACY, HARVARD
UNIVERSITY

Questions Submitted by Rep. Grijalva

Question 1. Last month, President Trump issued an Executive Order, titled “Evaluating and Improving the Utility of Federal Advisory Committees.” This order gives Federal agencies until September 30, 2019 to terminate at least one-third of all of their Federal advisory committees.

1a. Can you please explain the role of these Federal advisory committees at the Department of the Interior?

Answer. Federal Advisory Committees allow agencies to incorporate a wide range of expertise, scientific and otherwise, into decisions and processes that affect Americans. They also allow for engagement of the public and insure a transparent and fair means for gaining input from a variety of stakeholders, including industry, non-governmental organizations, academia and the public. There are many such committees involved in the work of the Interior Department, from advising National Park Service and BLM management of public lands and resources to providing priorities and agendas for the Landscape Conservation Cooperatives.

1b. How does this Executive Order affect scientific integrity at Federal agencies?

Answer. By establishing an arbitrary limit on Advisory Committees, the Trump administration is sending a signal that expertise is not valued, that scientific input is unwelcome, and that the number of Advisory Committees is more important than the management outcomes that they inform. This order reduces transparency and helps to remove scientific expertise from management deliberations, enabling politically-driven decision making for the benefit of special interests such as fossil fuel industries.

1c. Based on what we have seen so far in the Trump administration, how do you think agencies will decide which advisory committees to terminate? Do you believe that the process will be conducted with objectivity and transparency?

Answer. This order provides Interior leadership with permission to terminate Advisory Committees on purely political grounds. Committees with a proven record of balancing out the influence of fossil fuel or mining industries will likely be eliminated, as will those that provide unbiased scientific expertise. Based on their performance thus far, the political leadership of the agency is unlikely to proceed in a transparent or objective fashion.

Question 2. In his opening statement, Ranking Member Rob Bishop referred to the decreasing number of scientific integrity complaints at the Department of the Interior during the Trump administration. Is the number of scientific integrity complaints an adequate measure of a scientific integrity problem in an organization?

Answer. The number of complaints is a highly misleading, and perhaps contradictory, measure of scientific integrity. To register a formal complaint, a career scientist must have a high degree of trust that agency leaders will address the complaint fairly. Such trust would not exist in an administration that is hostile to science unless there is a statutory process for overcoming that hostility. In my experience, and from the feedback I’ve received from career scientists currently at Interior, registering a scientific integrity complaint is seen as a risky career move to be avoided. SI complaints will probably be rare during this administration.

Question 3. In May, this Committee held a hearing to examine the President’s budget at the Department of the Interior, at which Secretary Bernhardt testified. During the hearing, Secretary Bernhardt said he’s “not losing any sleep over climate change.”

3a. As the Director of the Office of Policy Analysis at Interior, you worked with Alaskan Native communities in helping them prepare for and adapt to climate change. Would you agree with Secretary Bernhardt’s level of concern about climate change?

Answer. I do not agree. Multiple lines of evidence and a high degree of scientific certainty indicate that the health and safety of Americans, particularly those most vulnerable to the impacts of climate change, are severely threatened by the impacts of climate change. This means that Alaska Native communities—and the missions of every bureau at the Interior department—are similarly at risk. With his remarks,

Secretary Bernhardt has shown that he is either unimaginably ignorant of the weight of scientific evidence or callously indifferent to the risks described above.

3b. Do you think the Alaskan Native communities with which you worked would agree with Secretary Bernhardt?

Answer. Frontline Alaska Native communities are struggling to maintain health, safety, and their way of life and, in some cases, prevent their villages from disappearing due to the impacts of a rapidly warming Arctic. The communities at risk in the Arctic would not agree with Secretary Bernhardt's blithe disregard for their health and safety.

3c. How do you think Secretary Bernhardt's statement impacts the morale of scientific community at Interior that has dedicated their public service careers to understanding and planning for the impacts of climate change on public lands and on communities like those with which you worked?

Answer. The morale of the career staff at Interior, scientists and non-scientists alike, has plummeted as political appointees disregard their work and intentionally undermine the mission of the agency. Scientists assessing and addressing climate impacts have devoted their lives to this important work. Secretary Bernhardt's statement caused hearts to sink across the career ranks, adding insult to injury. Scientists feel particularly beset because they are witnessing systemic disregard for their work across the agency, and the Administration more generally.

Question 4. Mr. Clement, please describe other ways that the Department of the Interior officials have sidelined science from the policy process or otherwise politicized science in ways previously unseen. Are there methods other than scientific integrity policies that would help prevent these kinds of practices?

Answer. One particularly egregious and unprecedented action is forcing the National Academy of Science to cancel and cease important research underway on behalf of Americans at risk. There are now multiple examples of this under President Trump's Interior Department. One canceled study related to the health impacts of mountaintop coal mining to nearby communities—a study requested by the communities themselves. Former Secretary Zinke canceled that study mid-stream without explanation. A second study Secretary Zinke canceled related to the health and safety of offshore oil rig workers. Both studies were intended to gather information and produce recommendations that would reduce risk to Americans, but both studies were seen as a threat by fossil fuel interests and therefore targeted by the Trump administration. Interior has also politicized research at the agency by requiring that all science grants over \$50,000 be reviewed in advance by a political appointee with no science background.

Question 5. Mr. Clement, why do you think that formal scientific integrity complaints at the Department of the Interior are down? Does this demonstrate that the Trump administration is more science-friendly than the Obama administration?

Answer. Interior political appointees claim that scientific integrity complaints are down, and I would expect that to be true. However, they insist that this is an indication of improvements in scientific integrity, which is likely false. It's more likely the opposite is true. Scientists at the agency are not likely to register a scientific integrity complaint in an agency that has suppressed science, marginalized and retaliated against scientists, and demonstrated hostility to the role of science in decision making. In this environment there is absolutely no incentive to attract attention to yourself or risk your research by complaining. By all accounts, including a survey of Federal scientists conducted by the Union of Concerned Scientists, scientific integrity has hit an all-time low under the Trump administration.

Question 6. Mr. Clement, in your experience, why would scientists at Federal agencies need to speak freely about their work, and, what impact does censoring scientists have on the work of the agency, the work of the scientists, and the public at large?

Answer. American taxpayers are funding this research and have a right to learn about the findings and implications for their health and safety, the economy, and the Federal lands estate. In the case of Interior, this research provides some of the best evidence and guidance for managing public lands and waters effectively and acting as a responsible trustee for American Indians and Alaska Natives. Transparency of science and inquiry are fundamental to a democratic society, and evidence of censoring such work on behalf of special interests is a major red flag for democracy.

Question 7. Mr. Clement, what benefit do Landscape Conservation Cooperatives provide for the public, and how are LCCs being undermined?

Answer. LCCs were established to provide non-partisan, stakeholder-informed research and management guidance in the face of environmental change. When fully operational, they covered the entire United States, and each LCC was guided by a steering committee comprised of state, local, and Federal Government officials, tribal members, non-profit organizations, and local business and economic interests. Such multi-stakeholder bodies are difficult and time-consuming to set up but once operational provide very robust tools and information tailored to the needs and priorities of local users—and this was certainly true of the LCCs, which were deeply appreciated by local communities and stakeholders. The Trump administration has undermined the LCCs by de-funding them (despite continued appropriations from Congress to keep them going) and shutting down the steering committees that provide them with their work plans. Because of the strong local interest in the products of the LCCs, a few have continued to limp along with support from local and state officials, but for the most part the program has been shut down despite ongoing interest from Congress and local officials to keep it going.

Question 8. Mr. Clement, why are strong scientific integrity policies needed to protect the Federal work force from stagnation and attrition?

Answer. The Federal science enterprise is driven by smart, devoted career scientists who came to public service to make a difference. Without assurances that they will be able to publish, present their findings, and collaborate with colleagues to advance their field, the careers of these scientists would suffer, their research would falter, and they would see no upside to public service. Scientific integrity policies are necessary to keep these committed public servants on board and attract the best and brightest to Federal service.

8a. What are the impacts to the country of a Federal work force that lacks scientists to do research?

Answer. Without scientists and experts to inform policy and management, the information necessary to guide policy will come from special interests, such as fossil fuel industries or chemical manufacturers with the resources to influence the agencies. This is made easier when the political appointees responsible for policy and management are hired directly from those industries. This is a major red flag for a functioning democracy.

The CHAIRMAN. Thank you very much, Mr. Clement.

I now recognize Mr. Daren Bakst, and I hope I said the last name right.

Mr. BAKST. You did. Thank you.

The CHAIRMAN. The floor is yours, sir.

**STATEMENT OF DAREN BAKST, SENIOR RESEARCH FELLOW,
ROE INSTITUTE FOR ECONOMIC POLICY STUDIES, THE
HERITAGE FOUNDATION, WASHINGTON, DC**

Mr. BAKST. Thank you. Chairman Grijalva, Ranking Member Bishop, and distinguished members of the Committee, thank you for this opportunity to discuss scientific integrity at the Department of the Interior and in the Federal Government. My name is Daren Bakst, and I am a Senior Research Fellow at The Heritage Foundation. The views I express in this testimony are my own and should not be construed as representing any official position of The Heritage Foundation.

Concerns regarding scientific integrity in the Federal Government are nothing new. A President Barack Obama 2009 memorandum on scientific integrity explained “that the public must be able to trust the science and scientific process informing public policy decisions.” I would add that the science and scientific process should be deserving of the public’s trust. So, what can be done to better achieve those objectives? I would like to highlight three important solutions.

The first is that Congress should strengthen the Information Quality Act. About 20 years ago, Congress passed the IQA. What better way to build public trust in the science than to allow the public itself to have the direct means to participate in improving the integrity of the science? That is what the IQA does. It helps to ensure the accuracy of the information disseminated by Federal agencies, along with ensuring that such information is reliable and unbiased.

Admitted, the IQA's potential to ensure scientific integrity has been undermined by insufficient agency accountability, and judicial decisions have held the IQA does not authorize judicial review. To its credit, the Trump administration recently issued a new memorandum on ways to improve implementation of the IQA. Congress, though, needs to put teeth into the IQA, such as by clarifying that the law does allow for judicial review.

My second recommendation is to promote the transparency of the science. Once again, the Trump administration should be commended for its efforts in this regard. The EPA, through what is referred to as its secret science rule, is proposing that the data and methodology underlying its regulatory science will be made publicly available. This transparency effort should apply across the Federal Government, with adequate protections for privacy and confidential information.

This whole issue is like math classes we all took. The teacher says to show your work, and that is what the agencies need to do as well. There have been claims that outside peer review by itself is sufficient. But the independence of peer review is not something that can merely be assumed, especially when many of the peers could be close colleagues.

It is one thing when the peer review process is purely for academic purposes. But once studies are being used as the basis for public policies to have serious implications for the lives of Americans, the standards must be strengthened.

I would like to stress this point. When we are dealing with rulemakings and other policy formulation, the self-interests of scientists inside and outside government do not take precedence over the protections in place to encourage public participation and our open system of government.

Finally, my third recommendation is for Congress and agencies to ensure that science and policy are not conflated together. There is plenty of legitimate concern about scientific integrity. But criticizing policy makers for looking beyond the science to answer policy and legal questions is not one of those legitimate concerns.

Science does not answer policy questions. Science can inform policy decisions by providing answers to objective questions without making value judgments. Therefore, for example, agencies should ask advisory committees to answer science questions only.

When legislators ask agencies to answer science questions, such questions should truly be those that do not involve scientific factors. Let me give you an example. The listing of threatened and endangered species should be based solely on the science. But since listings trigger regulatory requirements, the involved non-science-related concerns to promote scientific integrity, such as in the ESA,

the listing decisions should be decoupled from any regulatory implications.

In conclusion, scientific integrity is something that, regardless of ideology, we should all support. There might be differences in what solutions we think are necessary, but increasing public participation and improving the quality of the science should be widely supported goals.

Thank you, and I look forward to your questions.

[The prepared statement of Mr. Bakst follows:]

PREPARED STATEMENT OF DAREN BAKST, SENIOR RESEARCH FELLOW IN
AGRICULTURAL POLICY, THE HERITAGE FOUNDATION

My name is Daren Bakst. I am the Senior Research Fellow in Agricultural Policy at The Heritage Foundation. The views I express in this testimony are my own and should not be construed as representing any official position of The Heritage Foundation.

I want to thank the members of the House of Representatives Committee on Natural Resources for this opportunity to discuss scientific integrity at the Department of the Interior and in the Federal Government in general.

A BRIEF OVERVIEW

President Barack Obama, in a 2009 memorandum on scientific integrity, explained that “The public must be able to trust the science and scientific process informing public policy decisions.”¹ This is a useful starting point in discussing scientific integrity in the Federal Government. It is also important that the science and the scientific process are in fact deserving of the public’s trust.

This need for trust in the science also goes beyond the science directly used in policy decisions. Whenever the Federal Government disseminates scientific information, the imprimatur of the government carries significant weight. The results of a single Federal scientific study may, for example, be widely disseminated in media reports shaping public opinion or be utilized by other Federal agencies in their rulemakings.

Often, questions of scientific integrity focus on improper political interference in science decisions. This is only part of the picture. The politicization of science is not merely some after-the-fact decision by political officials to stifle science. It also includes processes in which sound science is undermined because the best science is not utilized, the science has significant flaws, qualified people are not involved, or there is insufficient vetting of the science (including through inadequate or a lack of public participation).

Actions undermining scientific integrity are not limited to political officials meddling with the science. It also includes those in science going beyond the science and seeking to answer inherently policy-oriented questions. This can be a result of them, on their own, going beyond their responsibilities or it can be a function of them being asked to answer questions that are policy-oriented and subjective in nature.

CONCERNS REGARDING SCIENTIFIC INTEGRITY ARE NOT NEW

While the title of today’s hearing suggests a focus on the Trump administration, there is nothing new about concerns regarding scientific integrity in the Federal Government. Over the years, such concerns have spanned administrations and they cover numerous ways that the integrity of the science has come into question. For example:

President Jimmy Carter fires USGS Director. In his first year of office, President Jimmy Carter fired Vincent McKelvey, the Director of the United States Geological Survey (USGS); then considered an apolitical position. Both Democrat and Republican legislators were concerned about political interference at the USGS, including Republican concern that he was fired over disagreements over the amount of oil and gas in the ground.²

¹ Executive Office of the President, “Presidential Memoranda: Memorandum for the Heads of Executive Departments and Agencies 3-9-09,” Federal Register, Vol. 74, No. 46 (March 11, 2009), p. 10671, <https://www.federalregister.gov/documents/2009/03/11/E9-5443/scientific-integrity> (accessed July 24, 2019).

² Emily Berman and Jacob Carter, “Policy Analysis: Scientific Integrity in Federal Policy-making Under Past and Present Administrations,” *Journal of Science Policy & Governance*, Vol.

In 1977, Rep. Jack Kemp (R-NY) made his views known on the House Floor:

I do not believe it is a coincidence that McKelvey's forced removal from his post as Director of the U.S. Geological Survey, which is unprecedented in its history, followed closely on the heels of an important speech given by McKelvey to the TSAI forum in Boston on June 13. In that speech McKelvey refused the notion that the United States is rapidly running out of energy. There are vast amounts of hydrocarbons sealed away in forms not presently recoverable economically, such as gas in tight formations in the Rocky Mountains, gas in black shales in the Eastern United States, and gas occluded in coal beds throughout the country . . . I believe that this treatment of any Government official who deviates from the official administration line that the United States is on the very brink of running out of energy is an absolute scandal.³

Department of the Interior fires whistleblower working on scientific integrity. Dr. Paul Houser was a member of the team working on scientific integrity at the Department of the Interior.

Ironically, he was allegedly a victim of the Department's lack of scientific integrity (when President Barack Obama was in office).⁴ According to Dr. Houser, "After I questioned science reporting and summary documents related to the Klamath River Dam Removal Secretarial Decision, I faced systematic reprisal and my job was terminated on February 24, 2012."⁵

Sue and settle and Endangered Species Act (ESA) listings. The listing of species and the designation of critical habitat under the ESA should be developed through a transparent process based on sound science. Yet, many species are listed as a result of lawsuits by advocacy groups that are settled behind closed doors.⁶ The case of the Hine's emerald dragonfly provides a good example of how sue and settle works. As explained by the U.S. Chamber of Commerce:

In 2008, environmental advocacy groups sued FWS to protest the exclusion of 13,000 acres of national forest land in Michigan and Missouri from the final "critical habitat" designation for the endangered Hine's emerald dragonfly under the Endangered Species Act. Initially, FWS disputed the case; however, while the case was pending, the new administration [Obama administration] took office, changed its mind, and settled with the plaintiffs on February 12, 2009. FWS doubled the size of the critical habitat area from 13,000 acres to more than 26,000 acres, as sought by the advocacy groups. Thus, FWS effectively removed a large amount of land from development without affected parties having any voice in the process. Even the Federal Government did not think FWS was clearly mandated to double the size of the critical habitat area, as evidenced by the previous administration's willingness to fight the lawsuit.⁷

The Fish and Wildlife Service may very well have agreed upon a listing and a critical habitat area that was not substantiated by the science. Even assuming it were, this type of closed process undermines scientific integrity because little faith can be placed in *how* the agency decision was reached. President Obama, in his

13, Issue 1 (September 2018), p. 6, http://www.sciencepolicyjournal.org/uploads/5/4/3/4/5434385/berman_emily_carter_jacob.pdf (accessed July 24, 2019).

³Jack Kemp (NY), "Dr. Vincent McKelvey: Was He Replaced for Being Too Optimistic About Our Domestic Sources of Energy?" Congressional Record (October 11, 1977), p. 33299, <https://www.govinfo.gov/content/pkg/GPO-CRECB-1977-pt26/pdf/GPO-CRECB-1977-pt26-3-3.pdf> (accessed July 24, 2019).

⁴See e.g. Paul Houser, "Critique of the DOI Scientific Integrity Policy," Dr. Paul R. Houser Hydrometeorologist (August 8, 2012), <http://prhouser.com/houser/?p=929> (accessed July 24, 2019) and Kate Sheppard, "Scientist Accuses Obama's Interior Department of Misconduct," Mother Jones (August, 14, 2012), <https://www.motherjones.com/politics/2012/08/interior-department-whistleblower-science/> (accessed July 24, 2019).

⁵Paul Houser, "Klamath Dam Removal Scientific Misconduct," Dr. Paul R. Houser Hydrometeorologist (April 19, 2012), <http://prhouser.com/houser/?p=331> (accessed July 24, 2019).

⁶See U.S. Government Accountability Office, "Environmental Litigation: Information on Endangered Species Act Deadline Suits," GAO-17-304 (February 2017), <https://www.gao.gov/assets/690/683058.pdf> (accessed July 24, 2019); See also "Sue and Settle: Regulating Behind Closed Doors," U.S. Chamber of Commerce (May 2013), <https://www.uschamber.com/sites/default/files/documents/files/SUEANDSETTLEREPORT-Final.pdf> (accessed July 24, 2019).

⁷"Sue and Settle: Regulating Behind Closed Doors," U.S. Chamber of Commerce (May 2013), <https://www.uschamber.com/sites/default/files/documents/files/SUEANDSETTLEREPORT-Final.pdf> (accessed July 24, 2019) at pp. 21-22.

scientific integrity memorandum, was right to discuss the public's trust both in the science and the scientific process.

EPA proposed its water rule before its science report was finalized. The Obama administration's EPA developed a report called the "Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence."⁸ In January, 2015, the EPA announced the release of this final report in a fact sheet.⁹ At the end of the document, it states:

Now final, this scientific report can be used to inform future policy and regulatory decisions, **including the proposed Clean Water Rule** being developed by EPA's Office of Water and the U.S. Army Corps of Engineers.¹⁰ [Emphasis added.]

There was a problem though. This scientific report was finalized *after* the proposed rule was published. As a result, the proposed rule was not informed by the report, and the public ended up providing comments on a proposal that did not take into account the "scientific basis needed to clarify CWA jurisdiction," as the EPA explained was a purpose of the report.¹¹

Further, those involved in developing the final report would have likely felt constrained in making changes that put into question the substance of the proposed rule; if a final rule is significantly different than a proposed rule, this can threaten an entire rulemaking and require the process to start over.¹² According to the D.C. Circuit Court of Appeals, "Given the strictures of notice-and-comment rulemaking, an agency's proposed rule and its final rule may differ only insofar as the latter is a 'logical outgrowth' of the former."¹³

Dietary Guidelines veers off mission. Sometimes scientific integrity is undermined because of the scientists. They may go beyond the science in their work and even into unrelated substantive areas. This happened during the last Dietary Guidelines process. The Dietary Guidelines Advisory Committee (DGAC) was working on recommendations to provide the Departments of Agriculture (USDA) and Health and Human Services (HHS) regarding the 2015 Dietary Guidelines for Americans.¹⁴

Instead of focusing on dietary and nutritional factors, the DGAC started to work on issues such as climate change and sustainability, and allow those issues to inform their advice. It would have been misleading to develop Guidelines not focused solely on nutritional objectives, and even potentially dangerous. For example, if the best nutritional advice recommends increasing meat consumption, but the DGAC deemed that environmental considerations suggest reducing meat consumption, it is not clear which objective would win out. Quite simply, there are many instances when environmental factors will not align with nutritional benefits for humans.¹⁵

⁸Environmental Protection Agency, "Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence," EPA/600/R-14/475F (January 2015), http://ofmpub.epa.gov/eims/eimscmm.getfile?p_download_id=523020 (accessed July 24, 2019).

⁹Environmental Protection Agency, "Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence," Federal Register, Vol. 80, No. 10 (January 15, 2015), p. 2100, <https://www.federalregister.gov/documents/2015/01/15/2015-00339/connectivity-of-streams-and-wetlands-to-downstream-waters-a-review-and-synthesis-of-the-scientific> (accessed July 24, 2019).

¹⁰Environmental Protection Agency, "Fact Sheet: Connectivity of Streams and Wetlands to Downstream Waters," http://ofmpub.epa.gov/eims/eimscmm.getfile?p_download_id=521414 (accessed July 24, 2019).

¹¹Daren Bakst, "EPA Inadvertently Makes Case against Its Own Power Grab," *The Daily Signal* (January 23, 2015), <https://www.dailysignal.com/2015/01/23/epa-inadvertently-makes-case-power-grab/> (accessed July 24, 2019).

¹²To learn more about this issue, please see e.g. Daren Bakst, "EPA and the Corps Ignoring Sound Science on Critical Clean Water Act Regulations," Heritage Foundation, Issue Brief No. 4122 (January 8, 2014), <https://www.heritage.org/environment/report/epa-and-the-corps-ignoring-sound-science-critical-clean-water-act-regulations> (accessed July 24, 2019).

¹³*Environmental Integrity Project v. U.S. Environmental Protection Agency*, 425 F.3d 992 (D.C. Cir. 2005). There were other problems as well with the rule and the report, including the EPA deciding not to reopen the comment process on the final report. See Virginia Albrecht, Kerry McGrath, and Deidre Duncan, "Insight: Court Says Water Rule Unlawful; Patchwork of Rules Left," *Bloomberg Environment* (June 20, 2019), <https://news.bloombergenvironment.com/environment-and-energy/insight-court-says-water-rule-unlawful-patchwork-of-rules-left> (accessed July 24, 2019).

¹⁴U.S. Department of Health and Human Services and U.S. Department of Agriculture, "2015-2020 Dietary Guidelines for Americans, 8th Edition. December 2015," <http://health.gov/dietaryguidelines/2015/guidelines/> (accessed July 24, 2019).

¹⁵Daren Bakst, "Extreme Environmental Agenda Hijacks Dietary Guidelines: Comment to the Advisory Committee," Heritage Foundation Commentary (July 17, 2014), <https://www.heritage.org/commentary/2014/07/17/extreme-environmental-agenda-hijacks-dietary-guidelines>

These actions threatened the legitimacy of the Dietary Guidelines because the advisory committee that was supposed to work on science lost its focus.

MISCONCEPTIONS ABOUT SCIENCE AND POLICY

The above discussion has highlighted issues that are connected to scientific integrity. There are some issues though that may get put into the scientific integrity discussion, but their inclusion is unwarranted and actually can be harmful. The most prominent example is the conflating of science and policy.

There is a misconception permeating public discourse that policymakers should look to scientists for the answers, even answers to policy questions. There is plenty of legitimate concern about scientific integrity, but criticizing policymakers for looking beyond the science to answer policy and legal questions is not one of those legitimate concerns.

Science does not answer policy questions. Science can inform policy decisions by providing answers to objective questions, without making value judgments. Policy decisions though require value judgments and subjective decision making. For example, science can inform policymakers about the likelihood that a product may cause harm to humans, but it does not answer the inherent value question as to what is an acceptable level of risk.

There is also the flawed assumption that scientists only answer science questions and their conclusions will be independent of personal opinion. This should be the case when scientists are expected to be answering science questions, but too often, it is not. The Dietary Guidelines example above illustrates how scientists sometimes inappropriately undermine the integrity of the science. They may use a scientific process and the guise of science to actually conduct policy analysis with policy conclusions, or allow their own beliefs to inappropriately influence what are supposed to be scientific conclusions.

Susan Dudley, who is Director of the GW Regulatory Studies Center, explained these concerns in 2017 congressional testimony:

It is this tendency to “camouflag[e] controversial policy decisions as science” that Wendy Wagner called a “science charade” and it can be particularly pernicious. For instance, a 2009 Bipartisan Policy Center (BPC) 2009 report, *Improving the Use of Science in Regulatory Policy*, concluded that “a tendency to frame regulatory issues as debates solely about science, regardless of the actual subject in dispute, is at the root of the stalemate and acrimony all too present in the regulatory system today.” Both of these problems, hidden policy judgments and the science charade, can be the result of officials falling prey to the “is-ought fallacy”: incorrectly mixing up positive information about what “is” with normative advice about what “ought to be.”¹⁶ [Citations omitted].

When scientists integrate policy judgments into their scientific work, this hurts scientific integrity. More importantly, “science” that has such a policy focus is not even science.

RECOMMENDATIONS TO IMPROVE SCIENTIFIC INTEGRITY

There have been efforts to improve scientific integrity. As mentioned, President Obama issued a 2009 memorandum on scientific integrity. The Trump administration has also taken significant steps as well. The EPA has proposed an important rule to address secret science¹⁷ and issued a directive to end the practice of sue and settle.¹⁸ On April 24, 2019, the Office of Management and Budget (OMB) issued a

www.heritage.org/public-health/commentary/extreme-environmental-agenda-hijacks-dietary-guidelines-comment-the (accessed July 24, 2019).

¹⁶ U.S. Senate. Hearing on Agency Use of Science in the Rulemaking Process: Proposals for Improving Transparency and Accountability. March 9, 2017. 115th Cong. 1st sess. (Statement of Susan E. Dudley, Director, GW Regulatory Studies Center). <https://www.hsgac.senate.gov/imo/media/doc/DUDLEY%20TESTIMONY.pdf> (accessed July 24, 2019).

¹⁷ Environmental Protection Agency, “Strengthening Transparency in Regulatory Science,” *Federal Register*, Vol. 83, No. 83 (April 30, 2018), pp. 18768–18774, <https://www.federalregister.gov/documents/2018/04/30/2018-09078/strengthening-transparency-in-regulatory-science> (accessed July 24, 2019).

¹⁸ Environmental Protection Agency, “Administrator Pruitt Issues Directive to End EPA ‘Sue & Settle,’” News Release (October 16, 2017), <https://www.epa.gov/newsreleases/administrator-pruitt-issues-directive-end-epa-sue-settle> (accessed July 24, 2019).

memorandum¹⁹ to help improve the implementation of the Information Quality Act (IQA) by updating 2002 OMB Guidelines on the IQA.²⁰

Strengthen the Information Quality Act. The IQA, enacted in 2000, makes it possible for the public to serve as a check on government dissemination of information and the soundness of agency science.²¹ The text of the IQA requires Federal agencies to “issue guidelines ensuring and maximizing the quality, objectivity, utility, and integrity of information (including statistical information) disseminated by the agency.”²²

The IQA can help to ensure the accuracy of the information disseminated and promote transparency of the science used by agencies. The potential of the IQA to ensure scientific integrity has been undermined though by insufficient agency accountability and judicial decisions holding the IQA does not authorize judicial review.²³

One of the best ways to promote public trust in the science and the scientific process is to allow the public to have a means to directly challenge the science. There needs to be teeth put into IQA enforcement. This would involve requirements that agencies will respond thoughtfully and in a timely manner to public requests under the IQA. There would also be judicial review to ensure, in part, that agency science meets the established IQA guidelines, especially when informing policy decisions.

Promote Transparency of the Science. In explaining its secret science rule, the EPA stated the, “EPA will ensure that the regulatory science underlying its actions is publicly available in a manner sufficient for independent validation. Where available and appropriate, EPA will use peer-reviewed information, standardized test methods, consistent data evaluation procedures, and good laboratory practices to ensure transparent, understandable, and reproducible scientific assessments.”²⁴

If there is going to be public trust in the science, Federal agencies, not just the EPA, should utilize those scientific studies where the data and methodology is publicly available. This should be done in a manner that properly protects privacy and confidential information.

Depending on journal peer review processes alone is insufficient. There can be a big difference in the quality of the peer review processes across journals. In addition, the independence of peer review is not something that can merely be assumed, especially when many of the peers could be close colleagues. It is one thing when the peer review process is used for strictly academic purposes, but once studies are being used as the basis for public policies that have serious real-world impacts on the lives of Americans, the standards must be strengthened.

Concern over peer review is not merely about independence but also about its limitations. Dr. George Wolff, a former Chairman of EPA’s Clean Air Scientific Advisory Committee has explained:

In the development of regulations based on environmental studies, numerous subjective assumptions and choices must be made regarding the selection of data and models that have a profound impact on the strength of any statistical associations and even whether the associations are positive or negative. The appropriateness of the assumptions and choices are not adequately evaluated in the standard peer review process. That is why

¹⁹ Office of Management and Budget, “Memorandum for the Heads of Executive Departments and Agencies: Improving Implementation of the Information Quality Act,” Executive Office of the President (April 24, 2019), <https://www.whitehouse.gov/wp-content/uploads/2019/04/M-19-15.pdf> (accessed July 24, 2019).

²⁰ Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies, 67 FR 8452 (Feb. 22, 2002), <https://www.federalregister.gov/documents/2002/02/22/R2-59/guidelines-for-ensuring-and-maximizing-the-quality-objectivity-utility-and-integrity-of-information>.

²¹ Pub. L. No. 106-554, §1(a)(3) [Appendix C], §515, <https://www.congress.gov/106/plaws/publ554/PLAW-106publ554.pdf> (accessed July 24, 2019).

²² *Ibid.*

²³ See e.g. William Kelly, Jr., “A Closer and More Current Look at the ‘Information Quality Act,’ Its Legislative History, Case Law, and Judicial Review Issues,” *SSRN Electronic Journal*, 10.2139/ssrn.3122670 (March 2018), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3122670 (accessed July 24, 2019) and Curtis Copeland and Michael Simpson, “The Information Quality Act: OMB’s Guidance and Initial Implementation,” Congressional Research Service (August 19, 2004), <https://fas.org/sgp/crs/RL32532.pdf> (accessed July 24, 2019).

²⁴ Environmental Protection Agency, “Strengthening Transparency in Regulatory Science,” Federal Register, Vol. 83, No. 83 (April 30, 2018), pp. 18768–18774, <https://www.federalregister.gov/documents/2018/04/30/2018-09078/strengthening-transparency-in-regulatory-science> (accessed July 24, 2019).

it is essential that the data and models be placed in the public domain for a more rigorous evaluation by qualified experts. The proposed regulation, Strengthening Transparency in Regulatory Science [the proposed EPA rule], will provide an opportunity for such evaluations.²⁵

It is also important to recognize that agency officials themselves who may have access to the data and methodology will benefit from hearing different views on the data and methodology, including from other scientists. This is another way that public participation in the rulemaking process can help inform and shape the decisions made by the agencies.

Scientific Integrity Concerns Should Focus on Science Questions Only. As has been mentioned, questions that involve policy and value judgments are not science questions. Therefore, for example, agencies should only ask science advisory committees to answer science questions only. Agency staff should ensure that the charge to such committees is on point and committee members do not veer off their mission, especially into policy.

This issue also has implications for Congress. Legislators should not require agencies to answer questions on science alone when such questions are not purely scientific in nature. For example, the listing of threatened and endangered species should be based solely on the science, but since listings can trigger regulatory requirements, they involve non-science related concerns. To promote scientific integrity, the listing decision should be decoupled from any regulatory implications.

Other Important Recommendations

- Agency scientists should be free to publish in professional journals, but there should be clear disclaimers when their research does not represent the agency's position. Other agencies using this research, especially in rule-making, should not mischaracterize research as agency research when it is just the research of agency employees.²⁶
- Agencies should not be allowed to avoid protections that can promote scientific integrity in the rulemaking process by using guidance documents instead of rules.
- Agencies should appropriately qualify any conclusions, including where there might be doubts regarding the science.
- Agencies should not quash dissenting opinions by agency scientists. Advisory committee reports should clearly detail where dissenting opinions existed among the members.
- Agencies should examine different assumptions, providing clear answers as to why certain choices were made over others.
- Agencies should continuously review the studies and models used and welcome information that could improve their understanding of such studies and models.
- Agencies should not put the interests of agency scientists over the interests of serving the public. This simply means that the interests of Federal scientists should be part of the scientific integrity discussion to the extent that it improves the science and the scientific process. This also means that *legitimate* agency concerns such as ensuring that any science has been properly peer reviewed does not get ignored out of a desire to be too deferential to agency scientists.

CONCLUSION

The importance of scientific integrity should not be underestimated. Some of the most important laws impacting the lives of Americans are often justified because of the science used by Federal agencies, including the Department of the Interior.

²⁵ Environmental Protection Agency, "EPA Administrator Pruitt Proposes Rule to Strengthen Science Used in EPA Regulations," News Release (April 24, 2018), <https://www.epa.gov/newsreleases/epa-administrator-pruitt-proposes-rule-strengthen-science-used-epa-regulations> (accessed July 24, 2019).

²⁶ This is a problem I have seen firsthand, with both the CDC and the FDA mischaracterizing a study done by CDC employees. See e.g. Daren Bakst, "Request for Correction of Information Disseminated to the Public that Improperly Attributed a Study to the Centers for Disease Control and Prevention (CDC)" to the Food and Drug Administration Office of the Ombudsman (May 21, 2015), <https://aspe.hhs.gov/system/files/pdf/105946/55aFDA.pdf> (accessed July 24, 2019).

Congress has delegated significant responsibility to agencies (often too much). The scope of agency power is concerning, especially when this power is too often unchecked. In a republic where those making laws are supposed to be accountable to the people, this excessive delegation is antithetical to principles of separation of powers and representative government.

One way to help ensure that agencies are not merely doing whatever they want is to have processes and protections in place so that when the Federal Government is disseminating scientific information or using science to make policy decisions, the science is credible and can be trusted.

The CHAIRMAN. Thank you very much.

Let me now recognize our final witness, Dr. Maria Caffrey. Five minutes are yours. Welcome.

**STATEMENT OF MARIA CAFFREY, Ph.D., FORMER PARTNER,
NATIONAL PARK SERVICE, DENVER, COLORADO**

Dr. CAFFREY. Good afternoon, Chairman Grijalva and distinguished members of the Committee on Natural Resources. I sit before you today to talk about one of the most painful periods of my entire life in the hope that protections will be put in place so that what happened to me will not happen to any other scientist ever again.

I interned for 1 year at the National Park Service around 2006. I was invited to rejoin the organization in 2012 following the completion of my PhD to work on climate change issues. I recognized the need for a consistent data set estimating how sea level rise and storm surge, driven by human-caused emissions of greenhouse gases, will affect coastal parks over the next century. I wrote a proposal for a multi-year project to produce such estimates, and NPS funded it. It was a very fulfilling time in my career.

I handed in the first draft of a scientific report describing my results in the summer of 2016. Following a normal but rigorous peer review process, the report was finally ready for release in early 2017. At this point, however, the head of the Climate Change Response Program, also known as CCRP, told me to wait since we were transitioning to a new administration and awaiting new instructions on messaging. So, I waited and waited. Eventually, I was given a release date of May 2017. The report was assigned a publication number and I was given proofs of the final product. But when May arrived, NPS delayed the release again.

I was at home on maternity leave in early 2018 when I received an e-mail from a colleague, warning me that my report was being altered without my knowledge. When I followed up, I was told they were minor edits that had been requested by the Associate Director of the National Park Service.

However, when I saw the edits, it was very clear that any mention of the human causes of climate change had been scrubbed from the document. When I raised this with the head of CCRP, she attempted to excuse it, arguing that using the more technical term “anthropogenic” in lieu of “human-caused” would be too confusing for park staff to understand. However, when I suggested simply replacing “anthropogenic” with “human-caused,” she rebuffed me and told me to delete any mention of the human role in the current climate crisis.

These references to human-caused climate change in my report were integral. The entire premise of the work was estimates of sea level rise and storm surge based on four different scenarios under different potential levels of future human-caused greenhouse gas emissions. Failing to mention anthropogenic climate change in my report would have eliminated crucial context and affected the scientific conclusions of the report.

When I pushed back on attempts to censor my work, multiple members of senior NPS staff expressed concern that if I did not remove references to human-caused climate change, the CCRP program could be closed or re-staffed. These same senior staff members threatened not to publish my report, or to publish it without my name on it and edit it as they saw fit.

Eventually, these officials backed down when Freedom of Information requests were filed by media outlets. NPS released my report with the references to anthropogenic climate change included rather than be the focus of bad publicity. I filed a scientific integrity complaint, and the Office of the Inspector General launched an investigation, but I was told there was no violation to my scientific integrity because the report had ultimately been published with the terms I fought for in it. No harm, no foul.

Except there was a significant, long-lasting cost to me. My funding at CCRP ended, even though I had been successfully managing multiple ongoing projects. I moved across the hall to the NPS Water Resources Division at a significant pay cut in a bid to start anew just so I could continue my work.

However, when my funding came up for renewal in February this year, I was told they also did not have funds to continue my work, which conflicted with information I was given by my branch chief. At the direct request of my immediate supervisor, who said he still needed my help, I even offered to volunteer. But I was told that my services were no longer needed. I had become an outcast for standing up.

I wrote my report as I would for any publication. I was only concerned with offering the best available science, not what the political consequences of my work could be. The personal toll of this has been substantial. I had to remove my daughter from day care, and I am now faced with the prospect of having to split up my family so I can continue my career in another state.

I am doing this because we need more protections for Federal scientists. I am certain I am not alone in experiencing this violation. Thank you for your time.

[The prepared statement of Dr. Caffrey follows:]

PREPARED STATEMENT OF DR. MARIA CAFFREY

INTRODUCTION AND SUMMARY

My name is Dr. Maria Caffrey. I received my PhD in geography from the University of Tennessee, and my recent research has focused on the potential impacts in U.S. national parks of sea level change and flooding resulting from anthropogenic (i.e. human-caused) climate change.

In 2013, the National Park Service ("NPS") named me Principal Investigator on a project to examine how sea level rise and storm surge would impact coastal national parks under a series of different future climate change scenarios, with the primary deliverable being a published scientific report ("the Report"). The Task Agreement that governed my project explicitly stated that my first major objective

would be to use the various scenarios for anthropogenic emissions of greenhouse gases contained in the most current report of the Intergovernmental Panel on Climate Change (“IPCC”) to develop estimates for what amounts of sea level rise and storm surge coastal parks would experience under those various scenarios. Since those scenarios are based on different assumed levels of future human greenhouse gas emissions, my Report was always inherently going to be an assessment of how human-caused climate change will affect coastal parks that the NPS is charged with preserving.

For this reason, when I handed in my first draft of the Report in August 2016, it referred to the fact that climate change is anthropogenic in nature, i.e. caused by human activity. The fact that future climate change will be driven by human activity is a fundamental premise of the Report’s analysis of different emissions scenarios, as well as its conclusions about how varying levels of anthropogenic greenhouse gases in the future will affect sea level rise in the national parks.

As the time for the Report’s publication approached in late 2017 and early 2018, my supervisors at NPS and other senior staff there repeatedly attempted to censor this scientific work by coercing me either into accepting the removal of references to anthropogenic or human-caused climate change from the Report, or into removing those references myself. I disclosed this attempted censorship to the NPS Scientific Integrity Officer, to the Department of the Interior’s Office of Scientific Integrity, the Department of the Interior’s Inspector General, and to a reporter at NPR’s *Reveal*. As a result of my disclosure, my access to NPS funding was gradually cut off until ultimately, in March 2019, my last attempt at continued NPS funding failed and it became clear that I would no longer have a position at NPS. It is as a result of this that on July 22, 2019, I filed a whistleblower complaint with the Office of Special Counsel.

FACTUAL BACKGROUND

I first worked at NPS in the Geologic Resources Division around 2006 during the George W. Bush administration. I returned to NPS as a partner for the same division in January 2012.

Climate change is an increasingly urgent issue for park managers as rising sea levels threaten to affect or even completely engulf coastal parks. Sea level rise and storm surges pose significant risks to infrastructure, archeological sites, and various historic structures in coastal parks. I became interested in returning to NPS when I recognized that NPS was lacking vital coastal climate data necessary for it to develop appropriate management plans for future climate impacts on coastal parks. I therefore designed a project that would generate data relating to future sea level and storm surges for all coastal NPS units under a variety of different greenhouse gas (GHG) emissions scenarios. To develop this data would help not only the NPS, but also the public that uses the national parks, understand how climate change could affect parks in the future and how the parks need to be protected. I wrote the proposal for funding to pursue this project myself. As referenced above, the proposal explicitly involved using anthropogenic greenhouse gas emissions scenarios contained in the most recent IPCC report, which represent potential human fossil fuel consumption over the next century. NPS accepted and funded my proposal without any changes. In August 2013, Leigh Welling, the then-Director of Climate Change Response Program at the NPS, named me Principal Investigator on the project, and I began work.

From January 2, 2012 until February 15, 2019, my salary was paid entirely with NPS funds at the direction and with the approval of NPS employees.¹ I had an NPS phone number and an NPS partner email address, as well as an NPS partner I.D. In addition, during that entire time, the computers, monitors, printers and other equipment I used to do my work were issued to me by NPS. From the time that I returned to NPS as a partner in January 2012, my office was located in an NPS building in Colorado. I was issued NPS business cards, and I appeared on behalf of NPS at public events, such as the Denver Museum of Nature and Science outreach days. My immediate supervisors on a day-to-day basis, as well as those at higher levels who were responsible for approving and overseeing my projects and reviewing my performance, were all NPS employees. It was one of my NPS supervisors who reviewed and approved my vacation requests. All my work was

¹Note that during certain periods in 2012 and from October 2018 until February 15, 2019 those funds were paid via a non-profit organization called Conservation Legacy. Nonetheless, my salary during this time was paid entirely with NPS funds, at the direction and with the approval of NPS employees.

conducted using my NPS computer, and the NPS posted all my reports on one of its websites, irma.nps.gov.

One of the primary intended products of my project was a written technical report (“Report”) that was intended for an audience with a scientific background. This Report would examine how numerous coastal parks would be affected by sea level rise under several different climate change scenarios. Those scenarios largely depend on levels of human-caused greenhouse gas emissions—i.e., anthropogenic climate change. The purpose of analyzing these scenarios in the Report was to inform the Park Service’s planning and adaptation strategies for its resources going forward. The intention for me to develop this technical scientific Report was memorialized in a Task Agreement signed by both NPS and the University of Colorado Boulder in August 2013, which contained multiple references to the fact that the Report was intended to follow a similar format to the reports of the IPCC, which are highly technical documents that convey information using scientific terms.² The NPS even linked to the IPCC report in its data store.³

As a scientist and the Report’s chief author I concluded that discussing anthropogenic climate change in the Report was scientifically relevant and important for two primary reasons. First, based on my PhD training in paleoenvironmental change, the term “anthropogenic climate change” is a scientific term specifically used to indicate future climate change as distinct from any discussions about non-human-caused climate change occurring in the past. Indeed, “anthropogenic climate change” is a standard term used in the IPCC reports, which, under the Task Agreement, my Report was specifically intended to be modeled after. Eliminating this term from the Report would therefore alter its scientific meaning. Second, as already described, the Report presents several different climate change scenarios and examines the projected impact of sea level rise on coastal parks under each of those scenarios. Presenting these scenarios without any reference to the fact that which scenario plays out will depend on the amount of greenhouse gases humans put into the atmosphere in the future would have eliminated crucial context and made the scientific conclusions of the Report less clear.

I researched and drafted the Report myself, although throughout the course of my work on the sea level rise project I met periodically with communications and science teams comprised of NPS employees who gave me input and feedback as my work progressed. The Report ultimately projected the effects of sea level rise at 118 coastal national parks in three different time frames (2030, 2050, and 2100), and under four different greenhouse gas emissions scenarios. While the work in the Report was my own, I offered both Rebecca Beavers, the Coastal Geology and Coastal Adaptation Coordinator for NPS’s Climate Change Response Program (CCRP), and Cat Hawkins Hoffman, the National Adaptation Coordinator the CCRP, co-authorship because they helped secure the funding for this project from NPS and because my direct supervisor, Ms. Beavers, wanted to achieve more “ownership” over the Report by adding NPS co-authors. Ms. Beavers also attended all of the science- and communication-team meetings that had been held to allow NPS staff to have input into the products of the projects carried out under the task agreement. Finally, I offered Patrick Gonzalez, NPS’s principal climate change scientist, co-authorship on the paper because he had offered me useful advice as I conducted my research and developed my Report.

I handed in my first draft of the Report to Ms. Beavers in August 2016. Over the course of the fall of 2016 and early 2017 the Report went through the normal editing and peer review process. As is standard practice, the peer review of my Report involved numerous scientists, some who were NPS employees and some from outside NPS. Initially, this process proceeded without incident. I received input from these reviewers, with both Ms. Beavers and Ms. Hoffman providing relatively minor input about wording, as was expected in their roles in CCRP. During this period, neither Ms. Beavers nor Ms. Hoffman raised any concerns about the references in the Report to anthropogenic climate change. In April 2017, after the review process was complete and I had incorporated the substantive comments and suggested edits I had received as appropriate, a “final” version of the Report went out for copy editing. This version of the Report included references to anthropogenic climate change.

Under normal circumstances, I would have expected the Report to have been published in early 2017. When this did not happen, I initially assumed any delays were due to new staff still learning the ropes after the change in administration.

²When I wrote the proposal, NPS also required that it have a public education component. I met that requirement by proposing to design three waysides and a public-facing website that would educate the public on the challenges of coastal climate change.

³<https://irma.nps.gov/DataStore/Reference/Profile/2215238>.

Beginning in about May 2017 I began to question the real cause of the delay as NPS continued to push back the release of my Report. In May or June 2017, Ms. Beavers told me that NPS was delaying the release in order to coincide with the release of another report. Then in August 2017, she told me that it was delayed again because Hurricane Harvey had hit and NPS did not wish to release a report focusing on sea level rise and storm surge at a time when hurricane activity was so much in the news. In September 2017, CCRP's Communications Coordinator, Larry Perez, told me that NPS Associate Director Ray Sauvajot had directed that the release of my Report be once again delayed. This time I did not receive any clear explanation as to the reason for the delay. Finally, in November or December 2017, Larry Perez told me that he anticipated that the Report would be released in January 2018, with no further edits. This was my expectation when I left for maternity leave in December 2017.

Instead, around the time I left on my maternity leave, NPS began making explicit attempts to get me to remove references to anthropogenic or human-caused climate change from my Report. The most concerning of these attempts fell into a few distinct categories.

First, my NPS supervisors and other senior NPS employees repeatedly threatened that if I refused to remove references to anthropogenic climate change (or to accept their removal by other NPS employees), NPS would not release my Report or would release it without the references to anthropogenic climate change and without me listed as an author. For example, in December 2017, Ms. Beavers came to my office and pressured me to remove references to the human causes of climate change from the Report's executive summary by suggesting that if I refused to do so, NPS would not release the Report at all. Specifically, during this encounter she told me: "It's better for you to make the changes than for this report to not go out at all. How would you feel if the parks don't get this? It's more important they get it." Ms. Beavers repeated this threat in a phone call with all the co-authors sometime in February or early March 2018. Another NPS employee who was eventually recruited to attempt to mediate the dispute over the Report, Brendan Moynahan, also made this same threat in a phone call on April 6, 2018, telling me that unless I agreed to whatever changes to the Report he deemed appropriate, he would release the Report with the content as he decided it should be and would remove my name.

The seriousness of this threat to my career is difficult to overstate. The phrase "publish or perish" is a common maxim among researchers. I dedicated several years to this research. For those years of work to fail to result in any publication, or for NPS to publish my research without properly crediting me as an author, would have been extremely damaging to my publication record and therefore to my ability to advance in my career. It is inconceivable that Ms. Beavers and Mr. Moynahan were not aware of the seriousness of the threats to my career when they made these statements.

Second, unable to convince me to remove references to anthropogenic climate change myself, NPS employees attempted at various points to remove those references from my Report themselves, without my authorization. The first time this happened was while I was out on maternity leave from December 24, 2017 to March 5, 2018. On February 27, 2018, I learned that Ms. Hoffman and Ms. Beavers removed all references to anthropogenic climate change from the Report—on which, again, I was the principal author—without consulting me. Ms. Hoffman did the same thing a few months later, after numerous failed attempts by her and others to coerce me into altering my Report. On March 27, 2018, again without my prior knowledge or authorization, she rewrote the introduction and conclusion sections of the Report to relegate the terms she did not like to a subsection on the second or third page.

This was beyond anything I had ever experienced before from any of my NPS colleagues. It went well past the kind of minor wordsmithing that it would have been reasonable for Ms. Hoffman to do and into the realm of substantively altering my Report without my approval. This was particularly inappropriate and shocking since Ms. Hoffman does not have a PhD or any formal training in climate change. It also seemed inconsistent with her previous actions, since she had already approved the text when we had originally planned to publish the Report in 2017. It is my belief that Ms. Hoffman was responding to pressure from the Administration to censor discussion of human-caused climate change within NPS. She initially tried to excuse the censorship of my work by saying that she was simply trying to eliminate the word "anthropogenic" because it was too confusing a term for park staff to understand. However, when I suggested simply replacing "anthropogenic" with "human-caused" she rebuffed me and told me to delete any mention of the human role in the current climate crisis. It became inescapably clear that what was

happening was not a normal editorial disagreement about word choice, but rather an attack on the scientific integrity of my work for political reasons.

Finally, Mr. Sauvajot subjected me to verbal and even physical intimidation. This took place during an in-person meeting with Mr. Sauvajot and several others in Fort Collins, Colorado on March 8, 2018. During this meeting, Mr. Sauvajot was extremely aggressive and threatening toward me as I attempted to explain why I believed it was so important that NPS not remove the references to anthropogenic climate change from my scientific Report. He became very agitated as I held to my position that it was inappropriate to remove the references at issue from the report. He raised his voice to me so much that I became alarmed, he turned red, and he smacked a stack of papers on a table. This behavior was very intimidating and unnerving to me. Mr. Sauvajot said during this meeting that it was now a verbal policy in NPS that the term “anthropogenic climate change” should not be used in scientific reports, that he was simply following orders, and that “this is just the way it is right now.” He also said that he believed that he might be reassigned and replaced with someone who “would not be as nice to me” as he was if the Report was published with the references to anthropogenic climate change in it. Ms. Hoffman followed this statement by suggesting that publication of my Report with those references could result in the entire Climate Change Response Program being terminated. The implication that a scientific report funded by a Federal agency for the purpose of informing that agency’s stewardship of important natural resources should be altered in order to conform to the political whims of the current presidential administration is deeply concerning.

Crucially, I was not alone in believing that the references in the Report to the anthropogenic or human-caused nature of climate change were scientifically relevant and important context for understanding the different future emissions scenarios the Report set out. Patrick Gonzalez, who was initially a co-author on the Report, shared this belief and willingly expressed it throughout this process. Mr. Gonzalez argued strenuously that the attempts described above to pressure me into removing those references or to remove them without my authorization constituted a violation of scientific integrity. Mr. Gonzalez eventually removed himself as a co-author on the Report—even though the references were ultimately kept in—because he did not wish to have his name associated with what he saw as a violation of scientific integrity.

DISCLOSURES

Internal Reporting

As the situation continued to escalate through the spring of 2018, my unpaid affiliation with the University of Colorado Boulder resulted in me being asked to respond to requests under the Colorado Open Records Act (CORA) relating to my work on the Report. At this point I became concerned that if the references to anthropogenic climate change were removed I could potentially appear to be complicit in an attempt to censor the Report and omit important scientific information. Therefore, on April 2, 2018, I contacted the University of Colorado Boulder’s Office of Research Integrity and Compliance and described to them what I had been experiencing. Two of their employees—Joe Rosse, the Associate Vice Chancellor of Research Integrity and Compliance, and Denitta Ward, the Assistant Vice Chancellor—subsequently participated in some of the discussions about the Report led by NPS staff, although they did not play any substantive role in the decision making around what was ultimately an NPS report.

I also contacted the NPS Scientific Integrity Officer, Sara Newman, and on June 1, 2018, I filed a scientific integrity complaint with DOI’s scientific integrity office in which I described in detail the coercion, manipulation and attempted censorship of my scientific research in what I continue to believe to be clear violation of the NPS and DOI scientific integrity policies. Under established DOI and NPS procedures, the subjects of my scientific integrity complaint—specifically Ray Sauvajot, Cat Hoffman, Rebecca Beavers, and Brendan Moynahan—would have been notified that I had filed the complaint. As a result, I believe that the fact of my having filed the complaint likely became common knowledge in my branch at NPS.

Finally, I contacted DOI’s Office of the Inspector General (OIG). I spoke with Agent William (Bill) Wiser of that office on April 30 about the situation surrounding my Report. Based on my conversation with Agent Wiser I understood that at this point OIG had already begun an investigation into the handling of my Report. I provided Agent Wiser with various pertinent documents as well as a copy of my scientific integrity complaint once I filed it.

External Reporting

I also discussed the events described above with a journalist, Elizabeth Shogren of NPR's *Reveal*, with whom I had worked for an unrelated article in 2013, and who contacted me on February 1, 2018 to inquire about the status of my Report. She also filed multiple Freedom of Information Act and CORA requests for my records. *Reveal* published stories by Ms. Shogren on my situation on April 2, 2018⁴ and May 18, 2018.⁵ *Reveal* also released a podcast episode on this topic on January 5, 2019.⁶ *Reveal*'s reporting brought some external attention to the situation surrounding my Report; in particular, on April 5, 2018, five members of the House Committee on Natural Resources sent a letter to the Inspector General for the Department of the Interior, Mary Kendall, requesting an investigation into whether the scientific integrity policy at the National Park Service was being adequately enforced, specifically citing Ms. Shogren's article. The next day five U.S. Senators did the same thing.

I believe that it was only because of Ms. Shogren's reporting and the attention it generated that my Report was ultimately published in May 2018 with references to anthropogenic climate change included in it, and with me appropriately credited as the lead author.

Unfortunately, despite calls from Congress for a rigorous investigation, neither my scientific integrity complaint nor my disclosure to the OIG's office were taken seriously. A little over a month after I filed my scientific integrity complaint, I received a letter from the NPS Scientific Integrity Officer, Sara Newman, closing it. The letter stated simply that "[b]ecause the report was published with references to anthropogenic climate change, there was no loss of scientific integrity." Ms. Newman and her office completely failed to address the serious instances of attempted coercion, censorship, and manipulation by NPS staff in relation to my Report detailed in my complaint. More than that, Ms. Newman told me over the phone on December 12, 2018—after her office had already closed my complaint—that she was unaware of many important details contained in it, particularly those related to the meeting with Mr. Sauvajot in March 2018 in which he was extremely aggressive and threatening.

Ms. Newman further told me that, while she knew about the incident from phone calls we had before I filed my scientific integrity complaint, she had never officially seen or heard my description of this incident (which I described in detail in my scientific integrity complaint) and she had read only a three-page summary that she had received from the OIG. She suggested that what I was describing should have been treated quite seriously. Thus, Ms. Newman apparently signed off on closing my complaint, which her office was responsible for handling, without having actually read it, much less having fully investigated it. This is extremely troubling.

The investigation conducted by the DOI's OIG similarly lacked any rigor or seriousness. I had only one brief phone conversation with Agent Wiser in which we discussed the substance of my complaint. On that phone call, which took place on April 30, 2018, I began to relay to Agent Wiser the circumstances of my case and to attempt to explain to him why I believed I had been subjected to various forms of coercion, intimidation and harassment by NPS personnel in an attempt to make me alter the content of my scientific Report. However, I was only able to relay a few sentences before Agent Wiser cut me off, telling me that he had "heard enough." Agent Wiser never contacted me to request any additional information. We exchanged a few more emails, in which he repeatedly emailed me a complaint form that did not work and that I could not use, but in which he did not seek any additional information. In August 2018 the OIG publicly posted a summary of the statement it ultimately provided to NPS, which simply said that "because the report was published without edits, we closed our investigation."

RETALIATION

After I made my disclosures, I experienced reprisal from multiple NPS supervisors at NPS, ultimately ending in my termination.

First, as part of the sea level rise project I was initially funded by NPS to do, in addition to the Report itself, I was tasked with developing an interactive website for nps.gov that would allow users to see what the scenarios described in the Report would look like. We referred to this website informally as "the viewer." I worked closely with others at NPS over the course of approximately 3 years to develop the viewer, including writing the proposal for funding to be transferred from CCRP to

⁴ <https://www.revealnews.org/article/wipeout-human-role-in-climate-change-removed-from-science-report/>.

⁵ <https://www.revealnews.org/blog/national-parks-report-finally-released-uncensored/>.

⁶ <https://www.revealnews.org/episodes/silencing-science/>.

the Denver Service Center that provided the web server for the viewer. Prior to the conflict over the inclusion of references to anthropogenic climate change in the written Report, Ms. Hoffman had repeatedly turned to me for updates on the viewer project. For all these reasons, my understanding was that I was the lead on the project. However, in spring 2018, Doug Wilder, a GIS (Geographic Information Systems) Lead at NPS who was co-authoring the viewer with me, told me that he had been prohibited by his supervisor from sharing drafts of the project with me directly. Ms. Beavers essentially took control of the project, despite the fact that she had not attended any of the meetings on the project or contributed to it substantively. I was cut off from working on the project on which I had been the lead and eventually told that my input was no longer needed.

Much more crucially, my funding from NPS—and consequently my position there—has been eliminated, despite the fact that my most recent immediate supervisors have been very pleased with my work, sought to keep my position intact, and asked me to keep doing work for them even after my funding was eliminated because my work was essential to the projects I was on.

The funding for the sea level rise project itself ended in October 2017. Under normal circumstances, Ms. Hoffman, as the head of the Climate Change Response Program under whose auspices I conducted the sea level rise research, would have allocated more funding for me. In the past I had requested, and received, extensions of the funding for the sea level rise viewer. The original Task Agreement authorizing and funding my project was modified repeatedly over several years to provide additional funding when the original term of the agreement ran out without any difficulty.

I had every reason to expect this to continue. For one thing, there was still work to do on the sea level rise viewer, another important part of the overall sea level rise project. The viewer project included a separate report that was to be released through the NPS's Data Series, a series of non-scholarly reports intended to allow for the timely release of data sets and summaries.⁷ I had been successfully leading this Data Series project, but Ms. Beavers removed me from it and took it over. To this day Mr. Wilder, the GIS expert I worked on the viewer with, still periodically contacts me for assistance with the viewer because he needs my technical expertise to finish the edits on the project. In addition, I still had several outstanding requests for information and assistance from coastal parks. While this was not strictly part of my sea level rise project, it was something that I did in the regular course of my duties as a sea level rise expert for the NPS.

Nonetheless, and despite the obvious continued demand for my work and input, my funding dried up following my dispute with NPS over my scholarly Report that was the primary product of the sea level rise project. Instead, NPS pushed me onto a series of low-paying projects that were inappropriate for a scientist of my experience and did not make use of my sea level expertise. First, Ms. Beavers suggested I apply for a short-term project with a colleague in the Biological Resources Division that would pay me approximately \$5,000 for 3 months work on a project assessing the impact of climate change on turtle ecology. I accepted this project only because it would allow me to stay on at NPS for the time being, and it would pay me until I left for maternity leave.

I hoped that by the time I returned, the Report would be published and the situation would have blown over. As I have already described in detail, this was not to be. Ms. Hoffman told me that she could not provide me with any more funding from the Climate Change Response Program, and indeed I was essentially cut off from communication from that entire division. The only way I could stay at NPS at that point was to accept an internship position in another division at NPS, the Water Resources Division (WRD). I was able to secure a very limited amount of funding—approximately \$25,000—from WRD. Under this new arrangement, I began work on projects related to wetlands mitigation banking, something which, like turtle ecology, was well outside my main area of scientific expertise. Taking this position also required me to accept an intern title that was not appropriate for a PhD scientist of my experience. Indeed the intern program I was receiving funds through was specifically intended for scientists ages 18–35, younger than I was at the time when NPS entered me into it. Finally, I had to accept a significant reduction in my annual salary, from approximately \$70,000 to approximately \$25,000. I was being retaliated against for speaking up.

Nonetheless, I was able to work successfully with my new colleagues and supervisors in WRD, and my efforts were essential to the advancement of the wetland mitigation banking project I led. In addition, I began working on a new grant proposal for \$130,000 for work on a project that would create a database of degraded

⁷ <https://www.nps.gov/im/reports-nrds.htm>.

wetlands within park lands that could be used as part of a wetland mitigation strategy.

The \$25,000 stipend in WRD ran out on February 15, 2019. Alan Ellsworth, Chief of WRD's Aquatic Systems Branch, very much wished to retain me and went to great lengths to find a way to continue that funding. Moreover, it was common knowledge within the division that there is a significant amount of unused funding—I was told by a colleague, as of mid-February 2019, this was approximately \$300,000. This is such a well-known, recurring issue that employees often refer to the need to spend unused funds at the end of each fiscal year (in order to avoid losing them) on things like extra iPads and computer monitors as “Christmas.”

Nonetheless, the Chief of WRD, Forrest “Ed” Harvey, not only refused to sign off on the purchase order requested by my immediate supervisors that would have allowed them to retain me, he refused to provide any explanation as to why he would not provide the requested funding or even to acknowledge my supervisor's inquiries about it. Although Mr. Harvey was not directly involved in my work on the sea level rise project, he would have been in frequent communication with those who were, particularly Mr. Sauvajot and Ms. Hoffman. Given that, as well as the fact that news of the controversy around my Report was widely known among my NPS colleagues, it is a virtual certainty that Mr. Harvey was well aware of what happened and had received the message that I was no longer welcome at NPS.

Mr. Harvey also prevented me from pursuing the new \$130,000 grant proposal I had developed and both my direct supervisor, Kevin Noon, and the Aquatic Systems Branch Manager, Alan Ellsworth had approved. In order to have a chance to have that proposal accepted, it would have had to be submitted to DOI for review no later than March 3, 2019. Before that could happen, however, Mr. Harvey himself would have had to review it and approve me sending it to DOI for consideration. He refused to do so, thus effectively preventing me from pursuing funding and terminating my position at NPS. It was therefore on March 3, when the deadline for DOI review passed, that I officially knew I would be unable to obtain any more funding to maintain my position at NPS. Again, Mr. Harvey refused to even acknowledge my repeated inquiries about the status of my proposal, much less provide any substantive explanation as to why he would not allow it to go forward. This all happened despite my having obtained good performance reviews.

Further evidence that the lack of interest by NPS management in retaining me was unrelated to budgetary constraints may be found in the fact that my immediate supervisor at WRD, Kevin Noon, a wetlands scientist, told me that he could not continue the wetlands mitigation banking project I had been working on without me and sought to keep me on as a volunteer after my position ended because he needed my services. At Mr. Noon's request, I submitted a volunteer application he provided to me since I wished to help him out. Although it is common practice for NPS employees to arrange volunteers, and under normal circumstances I would have expected this request to be approved without issue, Ed Harvey apparently denied this request—I was told that there would be no need for my pro bono services without any further explanation, despite the fact that Mr. Noon had made it explicitly clear that he did indeed need my services in particular to finish the wetlands mitigation banking project.

CONCLUSION

It is abundantly clear that the management at NPS gradually cut off my access to funding and eventually terminated me—not because my supervisors were unhappy with the quality of my work, did not wish to work with me, or did not have a need for my work, and likewise not because funding was an issue (my services were mysteriously not needed even when I was willing to offer them for free in the face of an explicit need for them)—but rather as retribution for my having made disclosures about the attempted censoring of references to anthropogenic climate change in my Report on sea level rise.

Losing my position at NPS has been extremely difficult for me, both financially and emotionally. I have struggled to find other employment, despite months of considerable effort on my part to do so. I have only last week begun work in the first temporary position I have been able to obtain since I left NPS. I even had to contend with a challenge to my right to receive unemployment benefits. Although the challenge was withdrawn once I obtained counsel, this only added to the stress and difficulty of my situation. I have even had to begin considering whether to move my baby daughter away from her father so that I can go someplace where I can find permanent employment. I hope that this Committee will treat this situation with the seriousness it deserves and find a way to remedy it.

QUESTIONS SUBMITTED FOR THE RECORD TO DR. MARIA CAFFREY, FORMER PARTNER,
NATIONAL PARK SERVICE

Questions Submitted by Rep. Grijalva

Question 1. You stated that your role at NPS was a Partner, not a contractor. Could you provide additional information about what that means?

Answer. Yes, I was a National Parks Service (NPS) Partner and not a contractor. The distinction is important because, unlike a contractor, I functioned the same as a full-time NPS employee. I worked exclusively and full-time for the NPS, in an office in an NPS building surrounded by NPS employees. All of my supervisors were NPS employees. I participated in departmental meetings and decisions just as all the other NPS employees I worked with did. All of my work was performed in my NPS office using computers, phones and other equipment provided by NPS. NPS also provided me with an NPS Partner email address—which, importantly, is not provided to contractors—as well as with NPS business cards. As part of my job duties I occasionally represented NPS at public events. Although my funding did need to be renewed periodically, that renewal happened routinely throughout my tenure at NPS. Additionally, and very crucially, both I and my supervisors and co-workers at NPS had every reasonable expectation that it would continue to happen indefinitely into the future. Indeed, at the time of my termination, I was managing multiple on-going projects for which my supervisors and colleagues were counting on my continued participation, and which have been difficult or impossible to continue without my input.

This is all quite different from the role of contractors, who generally do not function as full-time NPS employees, are not indefinitely provided offices in NPS buildings and fully equipped by NPS, do not participate in internal NPS departmental meetings, deliberations and decisions, do not represent NPS at public facing events, and are funded for discrete projects with no expectation of indefinite funding.

I appreciate the opportunity to clarify my comments on this subject during the hearing, where I did not have the opportunity to give a nuanced response. As should be clear from my comments above, I worked full-time at NPS and effectively functioned as a salaried employee.

Question 2. Can you provide more information about the scientific integrity complaint you filed and your experience with the complaint process?

Answer. I filed a scientific integrity complaint on June 1, 2018. Both the Department of Interior (DOI) and NPS have Scientific Integrity Policies in place, and both of them prohibit DOI and NPS employees from engaging in censorship or coercive manipulation. My scientific integrity complaint focused on all the instances in which various NPS employees had repeatedly attempted to censor my work because it discussed human-caused climate change, and in which those same employees had repeatedly used harassing tactics to attempt to coerce and manipulate me into accepting the censorship or into censoring my work myself.

As is the required procedure, I filed the complaint with the Department of Interior's Scientific Integrity Office. From there, it was directed to the Scientific Integrity Officer for the NPS, Sara Newman. Unfortunately, Ms. Newman and her office never appeared to take my complaint seriously. A little more than a month after I filed, I received a letter from Ms. Newman stating that she was closing my case because my report was ultimately published with the references to anthropogenic climate change included. Subsequent conversations with Ms. Newman, together with agency counsel, further elucidated that her office had reached this outcome by adopting an extremely literal and overly narrow interpretation of the Scientific Integrity Policy, concluding that because the work product had not ultimately been affected, the attempted censorship and the intimidation and coercion tactics I had been subjected to could not constitute a loss of scientific integrity and were of no concern to them. This seems extremely far from the spirit, if not indeed the explicit written intent, of the relevant policies.

It is worth noting that DOI's Office of the Inspector General had also become aware of my situation, and I did communicate with them about it. The involvement of both the OIG and the NPS Office of Scientific Integrity became very muddled, however; there seemed to be considerable confusion as to which office should defer to the other, and ultimately it seemed that neither investigative body felt empowered to do anything about my situation. I was particularly frustrated when, several months after the SIO had summarily dismissed my complaint, Ms. Newman told me in a phone call that she had only ever read a 3-page summary of my (much more detailed) scientific integrity complaint that she received from the OIG, and she

confessed being unaware of many important details of what I had reported. Most distressingly, she said she had not read my description in my Scientific Integrity Complaint of a meeting in March 2018 with an Associate Director of the NPS, Ray Sauvajot, in which Mr. Sauvajot had been extremely aggressive and threatening toward me in attempting to convince me to accept the deletions of the phrase “anthropogenic climate change” from the report. Ms. Newman suggested in this after-the-fact conversation that such an incident should have been treated quite seriously. Thus, from what I could discern, neither she nor anyone else in her office ever read my full complaint before dismissing it.

Question 3. You stated that the sea level rise report was not released as originally written. Can you provide additional information about this?

Answer. This is correct. While it is true that my report was released with the references to anthropogenic climate change restored, there was an important change from the original finished report: on the original report, Dr. Patrick Gonzalez (National Park Service Principal Climate Change Scientist) was listed as a co-author. On April 18, 2018, Dr. Gonzalez removed his name as a co-author of the sea level rise report to protest the violations of scientific integrity by the National Park Service. During the hearing, I inadvertently misstated his reason for removing his name. It was not out of fear for his work, it was to protest the National Park Service violations.

Question 4. You mentioned other violations of scientific integrity at NPS. Can you provide additional information about any of those other incidents?

Answer. Dr. Gonzalez, mentioned above, also faced attempts by NPS to get him to remove mentions of anthropogenic climate change from an unrelated manuscript he submitted to a scientific journal. Dr. Gonzalez was successful in protesting this violation of scientific integrity, and did not change a word; the scientific journal published his article intact. I am sure that Dr. Gonzalez and I are not the only scientists at NPS who have experienced this violation.

Question 5. In May, this Committee held a hearing to examine the President’s budget at the Department of the Interior, at which Secretary Bernhardt testified. During the hearing, Secretary Bernhardt said he’s “not losing any sleep over climate change.”

5a. Your report examined the impacts of sea level rise and storm surges on National Parks. Given the findings of your report, do you believe Secretary Bernhardt understands and appreciates the severity of the impacts of climate change on public lands managed by the Department of the Interior?

Answer. No, I do not believe he does. As the introduction to my report explains, global sea level rise and the impact of storm surge caused by stronger and more frequent storms, both driven by anthropogenic climate change, will have significant negative effects on coastal parks in the future. Not only are these parks important from an environmental perspective—many of them are important habitats for nesting shorebirds or sea turtles, for example—they are also important from an archeological and cultural perspective, housing historical forts, lighthouses and other structures, as well as attendant artifacts. They further provide important places for public recreation and enjoyment.

DOI, and under it the NPS, are charged with maintaining and preserving these lands for the benefit of the public and for future generations. While my report is just one contribution to the scientific literature on climate change among many, my research unequivocally concluded that climate change poses a substantial threat to coastal parks in the future, and that our choices about fossil fuel emissions will affect what level of threat these parks face.

5b. How do you think his statement impacts the employees of the Climate Change Research Program within which you worked?

Answer. I think statements such as the one mentioned above have absolutely affected the employees of the CCRP. Even if there has not been any explicit directive not to work on climate change, this statement and others like it have unequivocally created an environment in which well-meaning agency employees are afraid that if they do research around climate change, write grant proposals for work relating to climate change, or even mention climate change in their work they may be punished—they may be reassigned, even relocated far from their homes and their families; their programs may be defunded or eliminated. This fear absolutely affected the people I worked with in CCRP, some of whom explicitly referenced such concerns in their attempts to get me to self-censor and remove references to climate change from my scientific report.

Questions Submitted by Rep. Cox

Question 1. Why is it important for us to have accurate science about the effects of climate change on our national parks?

Answer. If we do not have accurate science on how climate change will affect our national parks, then we cannot even hope to take appropriate steps to do what we can to protect the parks, as well as the monuments and artifacts they contain, from the effects of climate change.

Question 2. Why is it important for us to recognize the human impact on climate change when we talk about our national parks?

Answer. One reason it is important to recognize the human impact on climate change when we talk about our national parks is that means that our choices will impact how much and in what ways climate change actually affects national parks in the future. The mission of NPS is to protect and preserve the parks for future generations, and it is not possible to do that without acknowledging that human greenhouse gas emissions levels will dictate what conditions park managers need to anticipate.

In addition, national parks educate visitors about relevant environmental issues affecting the parks. Climate change is having and will have huge impacts on parks, and it is impossible to meaningfully educate park-goers about how climate change is affecting or will affect what they see around them without acknowledging that it is driven by human activity.

Question 3. In other words, why did you fight so hard to keep that piece in your report? What could Interior have done in your situation to better foster a culture of scientific integrity?

Answer. I fought so hard to keep the references to anthropogenic climate change in my report for all the reasons described above. But, even more importantly, it was crucial that those references be included in my report because they were scientifically relevant. They were relevant for understanding the data sets and assumptions underlying my work. In addition, "anthropogenic climate change" is a scientific term of art, meant to distinguish the kind of future climate change I was working on from non-human-caused climate change in the geologic past. Thus, I was not engaged in a policy battle but was rather fighting for the scientific integrity and accuracy of my work.

Question Submitted by Rep. Horsford

Question 1. I have witnessed a concerning trend showing disregard for transparency and an unwillingness to facilitate communication between lawmakers and experts within the BLM, and other agencies in the DOI. On several occasions, after reaching out to local BLM officials to speak with experts on the ground, who have hands on experience related to Nevada, my staff has been redirected to DOI congressional liaisons in DC, who then stonewall my office from connecting with officials who can help us develop the most informed policy.

1a. Dr. Caffrey, in your experience is this standard or advisable practice within the National Park Service?

Answer. Open, frequent and consistent communication between scientists working at Federal agencies and lawmakers is essential for the development of evidence-based policy. This is why many of the scientific agencies have included provisions in their Scientific Integrity Policies acknowledging that the free flow of scientific information is an essential component of scientific integrity, and at least some explicitly mention the importance of open communication of scientific information to Congress.

I do not believe that preventing scientific experts at agencies from communicating with Members of Congress who are seeking information in order to inform policy making is an advisable practice. On the contrary, I believe this undermines the scientists' work, impedes the agencies in carrying out their missions, and leads to bad policy making.

1b. What role should Federal agencies and their experts play in informing Federal lawmakers?

Answer. I can think of almost no circumstance in which Federal lawmakers should not at least be *informed* of the best possible science when making any decision in which it is implicated. Thus the scientific agencies (and the scientists who work there) should regularly and freely communicate with Federal lawmakers in order to ensure that lawmakers act with the best possible information at hand.

The CHAIRMAN. Thank you very much. And I thank all of you for your testimony.

We will now request Members for questions. Under Committee Rule 3(d), each Member will be recognized for 5 minutes. Let me begin by recognizing Mr. Lowenthal for any questions that you might have, sir.

Dr. LOWENTHAL. Thank you, Mr. Chair, and thank you to all the members of the panel for this very informative panel today.

I want to start off by—I really have two major questions. My first one is: in August 2017, the Interior Department canceled a half-completed study examining the potential health risks of surface mining activity. In September 2018, the Department of Agriculture canceled a 2-year study regarding the potential environmental effects of copper nickel mining in Minnesota Superior National Forest, which we know includes the Boundary Waters, too. So, they canceled that study.

These are only two examples of previously approved studies which would have given the agencies and the public a clearer idea of the environmental and health impacts of certain extractive activities at a local site. My question is to Dr. Caffrey and Dr. Rosenberg and Mr. Clement, each of you or any of you.

Can you please tell me, how important are studies like this? How much do agencies use them to inform them? Are they used by Congress? Others? Here were two what I considered major studies, just canceled halfway through. What is going to be the impact of this? Dr. Rosenberg?

Dr. ROSENBERG. Thank you for the question. I appreciate the question, Congressman. As a former agency official, I can tell you that studies like this are extremely important because they provide information from high-level scientists, in many cases highly trained scientists, that the agency cannot just develop internally.

In one of the cases that you mentioned, on mountaintop removal surface mining, that study was actually requested by states in the Appalachian region. And it was a study being done by the National Academy of Sciences, which is really the premier scientific institution in the country.

I have worked with the Academy for many years. I have never heard of a study being canceled in midstream, no pun intended, and particularly one that was specifically requested to help inform states about a public health issue like this.

There was a second study canceled by the Department of the Interior that was underway at the National Academy on safety of offshore drilling rigs. That was also canceled in midstream because they said they didn't need the information. And frankly, the idea that the information is not needed is shocking to me.

Of course, the best information is needed on critical issues like drinking water, safety of wells, and mining activities. And that should inform agency decision making. It does in no way dictate policy. It provides the basis for making good policy in the future.

Dr. LOWENTHAL. Mr. Clement, do you have anything to add? Do you think these are important, to have this data?

Mr. CLEMENT. I do think it is important. Dr. Rosenberg covered most of the key points on those issues. I will say, though, that these are not just important because they can underpin a lot of

decision making, but because people depend on this information being out there.

The people of these Appalachian states requested this study because they were concerned. They are concerned about their health. The offshore oil workers have run into some noticeable and prominent safety issues out there, so there is a need for that.

So, it is not just that they are important for policy making, but they are important for people and the health and safety of Americans.

Dr. LOWENTHAL. Thank you. Dr. Caffrey, I am going to ask you another question because I think we have adequately heard, I think, what is the view of the panel.

Along the same line, Dr. Caffrey, the Trump administration has opened and sought to dramatically alter several President Obama-era plans very shortly after they were enacted. For example, last year President Trump's Interior Department proposed a new 5-year offshore oil plan, opening as much as 90 percent of the Nation's offshore regions to drilling. This is only 2 years after President Obama's plan, also a 5-year plan—so they scrapped it, the President's plan.

Another example is, late last year, the Trump administration announced that it is going to rewrite the 2012 Obama Integrated Activity Plan for the National Petroleum Reserve Alaska, seeking to open up more of the areas to oil and gas.

So, the President's administration is reversing well-intentioned, well-studied, thought-out policy, not trying to improve them, with the final goal of advancing commercial interests, it seems like, rather than collecting data or basing it on data.

I was hoping that you could speak to the importance of data collection also. Why is it so important to do so before reaching a conclusion?

Dr. CAFFREY. I think it is really important that we have this data feeding into our policy decisions. But it is also very important that we keep the politics out of our data. I am in pursuit of facts that should not be influenced in any way according to what the administration is at that time. When I worked at the National Park Service—

The CHAIRMAN. Thank you. Time is up.

Dr. LOWENTHAL. Thank you, and I yield back.

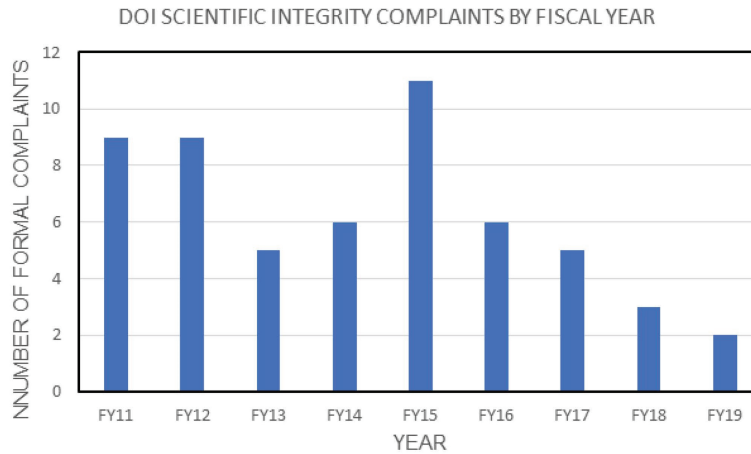
The CHAIRMAN. Thank you.

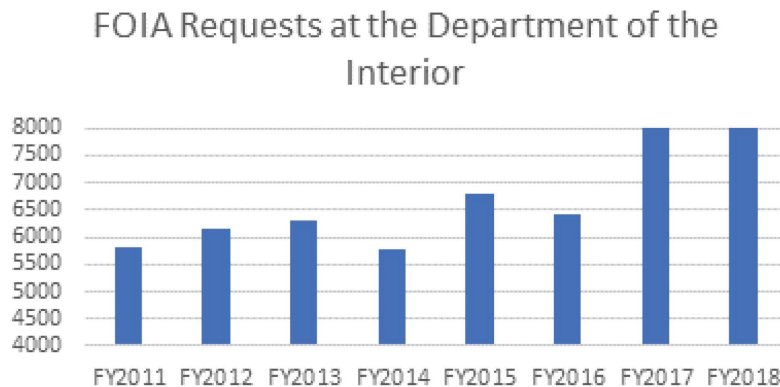
Who have I got? Mr. Hice.

Dr. HICE. Thank you, Mr. Chairman. And with the Ranking Member's permission, I would like to request that the chart that he showed be added to the record.

The CHAIRMAN. Without objection.

[The information follows:]

Submission for the Record by Rep. Bishop**SLIDE 1**

SLIDE 2

Dr. HICE. Thank you.

Mr. Bakst, lately we have heard a lot of blaming, if you will, global warming on a host of events happening around our world from my colleagues on the other side of the aisle, everything from violent events like the formation of ISIS, to the Syrian Civil War, to Brexit, to the crisis at our border.

In your testimony, you talked about the importance of public trust in science. I could not agree with you more on that. But in your opinion, is there any science that would suggest that global warming is the cause of these events?

Mr. BAKST. I don't want to suggest that I am a climate change expert, so I don't want to get into the science. But I will say that some of the references you made highlight a point that I like to make, which is that there is a big difference between science and policy.

In some of these examples, I would say sometimes people of science will conflate the two issues. And instead of actually analyzing a scientific issue, they are allowing their own biases to get into their science. Also, instead of actually answering scientific questions, what they are doing is they are actually answering policy questions disguised as science.

So, a lot of those opinions are very subjective and are getting into the policy realm. And that becomes harmful because the public sees that as a scientific answer when in fact it is really just a suggestive policy.

Dr. HICE. I think all of us here are interested in the truth of science. And I think it is really dangerous when we start attaching things to science that there is no—at least I am not aware of—evidence supporting that.

In your testimony, you also said that Congress has delegated significant responsibility to agencies, and the scope of those agencies concern you, as they do me. Do you think that Congress has an obligation to limit agency scope?

Mr. BAKST. Oh, absolutely. I mean, Congress has law-making power under the Constitution. I think Congress delegates far too much power to Federal agencies, and I think there are questions of whether or not too much power is delegated to those agencies.

Dr. HICE. So, along those lines, would you believe that independent studies should be looked at as well as just what comes from agencies?

Mr. BAKST. Well, what I would argue in terms of the science context for studies, I think what is critical is when you establish some processes in promoting scientific integrity, what you are doing is you are ensuring that the agencies are simply not doing whatever they want to do.

But you are creating processes, and Congress is creating protections and processes in place so that the public can have confidence in what the science is, and that the public needs to be able to participate in that process. And once that happens, then at least more faith can be placed in the science that is being disseminated by the agencies.

Dr. HICE. In listening to some of our panelists today, you would think that the Trump administration is the only one where there have been issues regarding scientific integrity. That certainly is not the case. You referenced, I believe, the Carter administration as well as the Obama administration. So, would you agree with this as something that occurs frequently?

Mr. BAKST. Absolutely. And in my testimony, I was just listing some examples. I mean, we could probably come up with just constant lists of examples.

But I think that one point that I—

Dr. HICE. Well, I think of Dr. Houser. I believe you referenced him.

Mr. BAKST. Right. Dr. Houser. And it is ironic. Dr. Houser was actually working on Interior's Scientific Integrity team, and then wound up being retaliated against and getting fired—

Dr. HICE. For raising the flag of falsified information.

Mr. BAKST. Right. Exactly. So, it is ironic. And that was the Obama administration. But I think it is important to note that it is not simply political appointees or political folks interfering or stifling science. It is also the processes that exist within the Government where I highlighted an example at the EPA when they were developing their WOTUS rule, they were supposed to have a final scientific report to inform the proposed WOTUS rule. The problem was that the proposed rule was published before the final scientific report was ever published. So, the public is actually commenting on a proposed rule that is not even informed by the science. That undermines scientific integrity. So, there are many different ways that scientific integrity is impacted beyond simply some political appointee hurting the science.

Dr. HICE. Thank you.

I yield back, Mr. Chairman.

The CHAIRMAN. Ms. Haaland, the time is yours.

Ms. HAALAND. Thank you, Chairman.

Let's see. Mr. Clement, I would like to know a little more about the work you were doing for the people in Alaska and what the importance of that work was. If you could explain that.

Mr. CLEMENT. Thanks for the question. It has become very clear that with the loss of the sea ice in the Arctic, what they call the ice fence, and the melting of the permafrost, the coastal villages in Alaska are melting away and right now are vulnerable. They are probably one big storm away from being wiped right off the map. And these were villages that were located on frozen ground protected by sea ice much of the fall and winter. When the big storms come in in the fall now, they are completely exposed.

So, we have, the GAO has estimated, over 30 villages that are imminently threatened and need to be relocated. There is no getting around the fact that the Interior Department needs to address that as the Federal trustee for American Indians and Alaska Natives.

I was playing the role of coordinator here in Washington, DC, working with an interagency group. We finally got all 20-some-odd agencies that are engaged in the Arctic to work together and to meet monthly and start coming up with a list of grant opportunities and the ways that we might be able to get people out of harm's way, what you can do in the executive branch to address immediate issues of concern and build momentum. We identified the Federal agency in Alaska that would be the point for that, which is the Denali Commission, and had work underway at that time.

Ms. HAALAND. Thank you. I met a woman one time who said her village was going to be underwater in 10 years, so doing everything she could.

Also, I read an interesting article once about the fact that Alaska Natives didn't have a word for the actual ocean because it had always been frozen. That is all they ever knew until it started melting and they actually had to find a new word in their language, which I thought was interesting. But for me, it seems like

a terrible and just tragic loss of culture from those communities there.

As you mentioned in your testimony, you were reassigned soon after this administration came in. Who took over the work that you were doing for those Alaska Native communities, that incredibly important work? Who took that over after you were gone?

Mr. CLEMENT. They never replaced me, and that work ceased.

Ms. HAALAND. They have never replaced you?

Mr. CLEMENT. No. Several months later they found a political appointee to sit in the office, but he has since moved on upstairs.

Ms. HAALAND. So, somebody that doesn't realize how much in jeopardy these communities are from the melting ice and the sea wall—

Mr. CLEMENT. Correct.

Ms. HAALAND. Wow. Or the sea ice. Is there someone leading that office now? And you say no?

Mr. CLEMENT. That is still vacant.

Ms. HAALAND. OK. And do you believe policy decisions for that work could still be made with the same level of scientific expertise with no one there?

Mr. CLEMENT. There is no one there to provide that, yes.

Ms. HAALAND. OK. So, in your opinion, what will be the impact of that office no longer having anyone there, much less any scientific leadership that sounds badly needed for those people, those Americans living in Alaska? Is there work that was underway that is no longer being continued much, I guess, the same way we were just talking about research that stops in the middle of it?

Mr. CLEMENT. That is right, yes. The organizing that was taking place has ceased now. There is work happening in the state, but they are getting no traction or budgetary support from Washington, DC, which, as a lot of bureaucrats know, is the kiss of death for the work that you are doing.

But, of course, agency staff in the state of Alaska are still trying to do everything they can, in some cases volunteering to step up to try to help these folks. But they are getting no support from Washington.

Ms. HAALAND. When you were reassigned, you were transferred to the Office of Natural Resources Revenue, which is something that is not your wheelhouse at all.

Why do you believe this reassignment was done? Out of retaliation? And was it simply a policy decision by leadership?

Mr. CLEMENT. I don't see any chance that that was a policy decision. I think it was purely punitive and retaliatory, for two reasons. One, of course, to take the climate advisor and put him in the office that collects royalty checks is clearly an indication they wanted me to quit.

But also, the very next week, Secretary Zinke came to the Hill and testified during a budget hearing that indeed he did want to use reassignments to trim the work force at DOI by 4,000 people. I don't think he realized that reassignments do not trim the work force unless you are getting people to quit, and that is unlawful.

Ms. HAALAND. So, I just have a few seconds. Why do you believe your reassignment was a violation of scientific integrity?

Mr. CLEMENT. To purge the language of climate change from the agency entirely is a direct assault on the science that we all know is very prominent and very clear on the risks to the mission of the agency that we need to act now, and to get people out of harm's way, in this case.

Ms. HAALAND. Thank you very much.

I yield back, Mr. Chairman.

The CHAIRMAN. Mr. McClintock, the time is yours.

Mr. MCCLINTOCK. Thank you, Mr. Chairman. I think we can at least all agree that science requires extensive and unadulterated data, detailed analysis, respectful debate, and also successful replication. It is often contentious, but it requires full freedom of discussion, full transparency, to arrive at the truth.

So, we should take seriously any constraints on scientific research and analysis. But as Mr. Bakst, I think, very, very well points out, we should not confuse science with policy. Mr. Clement, frankly, you seem to be somebody who has totally blurred the two.

Science is fact. Policy is opinion. When we mix the two, we run the risk of politicizing and degrading the science that ought to provide the factual foundations that assures good policy making. I think the global warming debate is Exhibit A.

That is certainly what we saw in the last administration, where scientific data was withheld and policy was misrepresented as science. And, frankly, I am very proud that the scientific integrity complaints have nose dived under this administration. Nevertheless, we should be on guard if the same objections are raised in this, or for that matter any, administration.

Mr. Bakst, scientists can often disagree, and it seems to me the best remedy to that disagreement is to put all the data out there. Put it side by side so that it can be discussed, challenged, criticized, confirmed, rejected, or reconciled.

How do we assure that all conflicting views can be presented together so that they can be resolved through analysis?

Mr. BAKST. Well, that is why transparency is so important. It is not simply policy makers and others criticizing the Federal science out there. Science overall is having an issue regarding replicating other studies. It is actually one of the biggest problems, is that studies are done and then you cannot replicate it so you don't have any faith in what the underlying study was. This is a big problem in many different fields, such as in psychology.

Mr. MCCLINTOCK. And replication is an essential part of scientific inquiry, is it not? Until you can successfully replicate a theory, it is only a theory.

Mr. BAKST. It is. And when we are dealing with information that is disseminated by the Federal Government, let me tell you, it is a lot more—is thought more important and has much greater weight.

Mr. MCCLINTOCK. So, transparency, sunlight, the ability of the data to be seen by all and analyzed by all. We actually passed a number of bills to do that in past Congresses. They didn't make it into law, unfortunately. But maybe that is one thing that we can now all agree on, is transparency is absolutely essential to the process.

And, again, in the distinction you make between science and policy, is there any way to untangle them? For example, we heard one Member doesn't like mining, so he doesn't like the data that would tend to support it. Well, that is natural. We all have biases. Scientists have biases, too.

It seems to me the only way is to keep a firewall. And since we all have these biases, maybe we need to develop a protocol where conflicting data can be posted side by side. That touches on your transparency, but I think we need to go further than that.

Mr. BAKST. Right. I think one of the beauties—like the Information Quality Act and some of the efforts that are out there, like with the EPA and the secret science, is trying to make sure that you simply—it is not just simply having access to the science. You need to know what the underlying assumptions were.

Mr. MCCLINTOCK. Yes.

Mr. BAKST. You need to have the codes, if they are available, the data.

Mr. MCCLINTOCK. Well, that has been our frustration with a lot of the rulemaking by the bureaucracies, is we get the rule and they will not give us the supporting data to justify the rule. And it mixes fact with opinion, science with policy.

Mr. BAKST. And plus once, if certain conclusions are made by an agency, they should clarify, first of all, what the certainties that exist are. And they should also explain why they didn't make other assumptions. Why did they reject other assumptions?

By having the public involved in this process, and other scientists, for that matter, this can help to challenge a lot of the underlying science and point out the fact that maybe some of the science is in fact policy.

Mr. MCCLINTOCK. I would just add—that is absolutely essential to us as policy makers because we have to have a solid foundation in order to make proper decisions. My mentor was a fellow named Ed Davis, who was the chief of the LAPD back in its golden age. And he had a maxim. He said, "Decision making is easy. Fact gathering is hard."

If you are having trouble making a decision, it is because you don't have enough facts or enough analysis of those facts. And I have found that to be true. So, I think the points you raise are absolutely central to our responsibility in the legislative branch.

The CHAIRMAN. Ms. DeGette, the time is yours.

Ms. DEGETTE. Thank you, Mr. Chairman.

I find this conversation extremely interesting. And I want to ask you about it, Dr. Caffrey. When you were developing your report, were you developing a political report?

Dr. CAFFREY. Absolutely not. That never entered my mind at all.

Ms. DEGETTE. What were you doing exactly?

Dr. CAFFREY. I was putting together sea level and storm surge estimates so that we could protect our natural resources and our cultural resources in the best way that we could.

Ms. DEGETTE. So, it was a scientific study. Is that right?

Dr. CAFFREY. That is correct.

Ms. DEGETTE. When you do a scientific study—because you are a scientist—do you go into that with a preconceived idea? For

example, when you are looking at the storm surges, do you go into that with a preconceived idea of how that is being caused?

Dr. CAFFREY. I mean, I have my science training that tells me the mechanisms that cause a storm surge, or a sea level rise. But no preconceived ideas beyond that.

Ms. DEGETTE. Did anybody tell you to do a scientific study that said that these surges were caused by human activity?

Dr. CAFFREY. No.

Ms. DEGETTE. That was the scientific result?

Dr. CAFFREY. That was the science. That is fact.

Ms. DEGETTE. OK. Now, just describe for me very briefly how you came to the determination that human activity played a part in this.

Dr. CAFFREY. Yes. I used data from the Intergovernmental Panel on Climate Change that I used to form my sea level rise estimates. And then we down-scaled those data from 2100 and 2050 to estimates for 2030 as well.

Ms. DEGETTE. As I heard you in your opening statement, you said that you were told to remove—I forget the word, but—

Dr. CAFFREY. Anthropogenic.

Ms. DEGETTE. Anthropogenic. You were told to remove that word not because it was an inaccurate scientific term but because I think you said it would confuse the people at the Park Service. Is that correct?

Dr. CAFFREY. That is correct. This was a report that was written for scientists at the Park Service, though, who should have training to—

Ms. DEGETTE. OK. But irrespective of that, they didn't say that the cause, the anthropogenic cause, was incorrect. They said they wanted you to take it out because it would confuse people.

Dr. CAFFREY. Yes. Remove it completely.

Ms. DEGETTE. Now, if you had removed that term, or the more commonly known "human-caused," would that have impacted the scientific results of your study? And if so, why?

Dr. CAFFREY. Completely. It removes the meaning from my study. I prepared four different climate scenarios for those three different time periods. So, those scenarios hang on how much greenhouse gases we produce in the future. If I am not allowed to talk about greenhouse gas in the future, then I cannot put any of these estimates together.

Ms. DEGETTE. So, as a policy maker—you were not developing a policy about what should be done, you were just saying what the science is. Would that be accurate?

Dr. CAFFREY. Correct. I was using the standard scenarios.

Ms. DEGETTE. So, as a policy maker, when I am trying to develop policy around climate science and what I should do, I have to rely on your studies being scientifically accurate. Is that right, from your understanding of what I do?

Dr. CAFFREY. Correct.

Ms. DEGETTE. So, you were not trying to do a policy. You were trying to do a scientific study.

Dr. CAFFREY. Correct.

Ms. DEGETTE. Dr. Rosenberg, would you agree with sort of the paradigm I am setting? It is not like scientists are preparing policy documents. They are trying to use science.

Dr. ROSENBERG. Yes. I think that is exactly right. I think that there has been a confusion in some of the discussion of saying scientists are straying into policy when they are producing results that are policy-relevant. But they are not setting policy.

Ms. DEGETTE. Yes. And it is not like somebody is telling a scientist to do their study a certain way to get a policy result.

Dr. ROSENBERG. Yes.

Ms. DEGETTE. If they are, that would not be sound science. Right?

Dr. ROSENBERG. Correct. If that was happening, that is a violation of—I would view that as censoring or manipulating the scientific evidence and violation of scientific integrity.

Ms. DEGETTE. OK.

Dr. ROSENBERG. That is not what we are talking about in general.

Ms. DEGETTE. Right. Mr. Clement, nobody told you that the research you were doing was not scientifically sound, did they?

Mr. CLEMENT. No. That is right. In fact, I was just looking at the conditions and hearing from the villages what was happening to them.

Ms. DEGETTE. OK. Thank you.

I yield back, Mr. Chairman.

The CHAIRMAN. Thank you.

Mr. Gosar, the floor is yours. Mr. Gosar? Are you yielding?

Dr. GOSAR. She is next.

The CHAIRMAN. Oh, I am just going by the people that are sitting—

Miss GONZÁLEZ-COLÓN. Thank you, Mr. Grijalva.

The CHAIRMAN. Mr. Gosar, he is the one who recognized you. No. I am just kidding.

[Laughter.]

Miss GONZÁLEZ-COLÓN. Anyway, we have many things in Puerto Rico, so I will yield to my friend, Mr. Gosar.

Dr. GOSAR. I thank the gentlewoman from Puerto Rico. Fabulous.

Mr. Chairman, this hearing is yet another example of Democrats on this Committee wasting time on political theater. Unlike the Obama administration that manipulated models and skewed science to justify their means, the Department of the Interior under the Trump administration, highlighted by Secretary Bernhardt's decision to assign a career scientist to his staff as a dedicated science advisor, and the Department Secretarial Order No. 3369, which makes clear agency decisions that are based on best available sciences.

If we want to scrutinize science manipulation, then we should point the finger where it belongs. And that is at the Obama administration, who time and time again utilized bad science to rationalize their environmental attacks on jobs and private property rights.

Let's not forget Dr. Houser, the Reclamation Science Integrity Officer, who was shoved out the door when he started reporting

fraudulent science being used to justify pursuits by environmental groups that want to tear down dams.

Mr. Bakst, is the idea of policy differences and priorities among various administrations incompatible with the idea of science integrity?

Mr. BAKST. Absolutely, it is not. Every administration is going to have certain priorities. They are going to place priority over some research over others. This is the reality. It is not a criticism of any party. It is just what is going to happen.

The fact that one administration is not focusing research on one area versus another is not a scientific integrity problem. The problem only comes in when the Government actually is asking people to look into the science, and then meddles in the science, and does not allow the scientists to do their jobs.

But establishing different priorities and deciding to relocate offices or defund certain areas is not necessarily by itself indication of scientific integrity. We would expect and hope that different administrations have different policy priorities.

Dr. GOSAR. So, I mean, we just heard from Mr. Clement that to reassign somebody to get them to quit rather than to be fired, which is illegal, how did that work for Mr. Houser? How did that work for him? Was he fired?

Mr. BAKST. Mr. Houser was fired.

Dr. GOSAR. And what was his position?

Mr. BAKST. Well, he was working on scientific integrity for Interior. He criticized science.

Dr. GOSAR. Yes. So, I would like to submit for the record the critique of the DOI scientific integrity by Dr. Houser.

The CHAIRMAN. Without objection.

[The information follows:]

Submission for the Record by Rep. Gosar

Critique of the DOI Scientific Integrity Policy

(305 DM 3, 1/28/11)

August 8, 2012

Dr. Paul R. Houser, Hydrometeorologist

Introduction: I served as a member of the Department of Interior (DOI) and the Bureau of Reclamation (BOR) Scientific Integrity Policy writing team which assembled this policy. After this Policy was adopted I served as the BOR Scientific Integrity Officer (BSIO). In that capacity, I was the official who processed a significant scientific integrity allegation (Judge Wanger's September 2011 allegations on Delta-Smelt issues).

At the same time, I have personally experienced that Policy from another perspective. I was the subject of whistleblower retaliation related to scientific integrity. In this connection, I authored and filed a scientific integrity allegation under this Policy concerning Klamath Dam removal.

From these experiences on both sides of the divide, I am in a unique position to offer a critique of the DOI's Scientific Integrity Policy.

I. Lack of Independence and Consistency in Allegation Inquiry Process

Section 3.8 crudely outlines the process for inquiries into allegations of scientific and scholarly misconduct and contains a number of flaws related to the formality of the inquiry process, due process, independence, and accountability that allows the Department to make up the procedures as it likes.

A. Too Much Discretion. The inquiry process called for in the Policy is largely controlled by the DSIO and the Bureau Scientific Integrity Officer (BSIO) who have the authority to summarily dismiss the allegation after reviewing the submitted information. If they determine that an investigation is warranted, then they can perform fact finding, and convene a panel of experts to advise them on the merits of the investigation. As written, these procedures give too much discretion to the DSIO and the BSIO to decide the fate of the allegation and the procedures by which it should be investigated. These procedures should be significantly improved with appropriate oversight, checks and balances.

B. Lack of Independence. The oversight independence of the DSIO and the BSIO's are dubious since they report to the regular chain-of-command. Additionally, the inquiry process calls for involving the subject's manager and Departmental leadership in the process with little regard for conflicts of interest. The policy needs to establish a separate oversight function that does not report to political appointees or is itself subject to Departmental politics.

The DSIO, BSIO's and the Department leadership are naturally biased in favor of the Department, and against the allegation: they naturally want the Department to be found to uphold scientific integrity. However, this bias can also perturb the inquiry process. One example: pre-written questions asked of expert panels can naturally lead the panel to a pre-determined conclusion.

DOI often convenes these panels via sole-source contracts to companies (e.g. ATKINS) that want repeat business; if the panel hired by the company does not find in favor of the Department, it may risk future business. Therefore, it is imperative that the Policy directly address these biases and conflicts of interest, and establish the DSIO and BSIO's with truly independent oversight.

C. Preeminence of Departmental Mission. The scientific integrity policy creates conflicts when science results do not support the mission or agenda of the Department. In these situations, scientific integrity should not be overridden or bypassed.

A special provision for political appointees should be included in the Policy that prevents them from managing or influencing the scientific integrity policy or process. The Policy should explicitly state that political agendas and initiatives must be guided by scientific integrity, and that scientific integrity trumps Departmental policies or political agendas.

Section 3.7A states:

“I will act in the interest of the advancement of science and scholarship for sound decision making, by using the most appropriate, best available, high quality scientific and scholarly data and information to support the mission of the Department.” (Emphasis added)

By including “. . . to support the mission of the department” in this statement, the Policy explicitly places Departmental initiatives and political agendas above scientific integrity. This statement must be dropped.

D. Lack of Due Process. The Policy's inquiry process does not establish an explicit due process. Even standard scientific peer-review procedures allow for a dialogue to develop better information and resolve issues. The Policy's fact finding and expert panel process should explicitly involve the accuser and the accused in due process proceedings.

E. No Penalties. The policy does not establish penalties for scientific misconduct, but rather leaves them up to the manager. A formal establishment of penalties and accountability of anyone found guilty of scientific misconduct or retaliation/suppression of scientific freedom should be explicitly included in the Policy.

F. Policy Inconsistencies. The Policy offers a broad code of scientific and scholarly conduct (Section 3.7), and separately offers definitions of scientific and scholarly integrity (Section 3.5L), scientific and scholarly misconduct (Section 3.5M), and procedures for reporting and resolving allegations regarding a loss

of scientific and scholarly integrity (Section 3.8). While there are some ties between these policy statements (for example Section 3.7A(6) and Section 3.7B(2)), there are many guidelines offered in the code of conduct, that when violated are not traceable to the procedures for resolving and reporting a loss of scientific and scholarly integrity (Section 3.8).

Further, the responsibilities sections (Section 3.6G-I) offers different guidance for the same groups of people that the code of conduct addresses (Section 3.7). These definition and Policy inconsistencies make the Policy confusing and less enforceable. These conflicts need to be resolved, with explicit procedures for reporting and resolving any intentional breach of the code of conduct and/or scientific and scholarly integrity (not just plagiarism, falsification and fabrication).

II. Debilitating Lack of Transparency

The Policy would greatly benefit from strong and explicit guarantees of transparency. This disturbing lack of openness can be found through the DOI scientific process encompassed by the Policy;

A. Misconduct Inquiries. The Policy's inquiry process has no requirements for public transparency or reporting. To gain the public trust, the Policy should have explicit requirements for transparency and reporting about the way that the Policy is being implemented, the reason decisions were made, and scientific misconduct correction actions.

The Policy should commit to publicly reporting alleged and confirmed lapses in scientific integrity, and develop and incorporate additional mechanisms to enhance transparency in DOI's adherence to its Scientific Integrity Policy.

B. Open Science. The Policy should explicitly grant all government scientists the right to freely communicate with the press and the public, without fear of retribution, censorship or consequence. Section 3.4E directs the Department to develop a communications policy along these lines, which was finally issued in March 2012.

The Policy should ensure that Federal science and decision making is communicated freely and transparently for public scrutiny; this is an important way to reveal and end political interference in science. Federal scientists should be performing and reporting on science that is in the public interest, and the American public (who pay for this science) should be able to trust that its science is not being performed in support of a political agenda.

Section 3.7A(2) states:

"I will communicate the results of scientific and scholarly activities clearly, honestly, objectively, thoroughly, accurately, and in a timely manner." This statement should be modified to explicitly include public communication.

C. Remove FOIA Gag. Civil servants and especially political appointees should be explicitly barred from practices that intentionally avoid creating publically discoverable information under the Freedom of Information Act (FOIA). For example, it is common practice for government managers to instruct their employees to not send Email or create documents pertaining to politically sensitive science issues. The Policy should explicitly prohibit these practices, and categorize them as scientific misconduct.

Further, the March 2012 DOI Communications Policy forbids employees from disclosing anything covered by a FOIA exemption, such as "pre-decisional" information, and discourage specialists from revealing any information not previously published or otherwise publicly released by the Department. These rules effectively restrict scientists from saying anything new, and significantly impede the development of a culture of openness and transparency with the public.

D. Creating a Clear Scientific Record. Section 3.7A9(10) states: "I will be diligent in creating, using, preserving, documenting, and maintaining scientific and scholarly collections, records, methodologies, information, and data in accordance with federal and Departmental policy and procedures." This should include providing easy public access to this information. Similar modifications are needed for Section 3.7B(3-4).

The policy should mandate the communication of scientific and technological findings by including a clear explication of underlying assumptions; accurate contextualization of uncertainties; and a description of the probabilities associated with both optimistic and pessimistic projections, including best-case and worst-case scenarios. This information, even if presented in very simple summaries, is critical to support good decision making.

III. No Whistleblower Protection

The DOI policy only provides a cursory mention of whistleblower protections, in directing the Department to provide its employees information (3.4F).

Current whistleblower laws are complex, are stacked in the governments favor, and generally do not protect employees who raise concerns about subjects that are part of their jobs. Until these policies are improved, DOI should develop and incorporate additional whistleblower protections into the Scientific Integrity Policy and provide a more detailed explanation of procedural safeguards to be instituted, in order to adequately protect agency scientists and employees who report scientific misconduct or political interference with their research.

The policy should explicitly grant scientists who report political interference in their work protection from retaliation. Explicit whistleblower protections must be included in the Policy to ensure not only government accountability, but also protection for agency employees who exercise their free speech rights and who facilitate the free flow of scientific and technological information to challenge institutional illegality, abuse of power, or other betrayals of the public trust. Government scientists must have the assurance that their primary duty is to the American people, and that they have an obligation and full protection to uphold the public trust.

Finally, the policy should explicitly protect the accused against retaliation or censorship of all parties throughout the allegation and inquiry process.

IV. Public and Peer Review

The Policy refers to reviews in several sections, but never explicitly defines the review guidelines. The Policy should include explicit public- and peer-review definitions and set guidelines for review procedures. These guidelines should establish the kinds of work that require review, the processes to ensure independent and conflict-free reviews and procedures to include due process (reviewer-reviewee iterations) and public transparency in the review processes.

There also needs to be an explicit response to review comments, as many programs profess that their programs or science are peer-reviewed as a justification for their validity, without ever taking action or even responding to review findings or suggestions. Finally, the Policy should establish procedures for appropriately handling differing scientific opinions and ensuring that these opinions are included in the final versions of scientific documents.

V. Conflict of Interest

Section 3.5A offers a broad definition of conflict of interest, which gives great leeway in subjective interpretation, and does little to give practical examples or to enforce conflict of interest rules.

The Policy needs to explicitly define conflict of interest, and give practical guidelines and rules. The conflict of interest policy also needs to have time guidelines, because conflicts of interest do not necessarily disappear once a financial or professional relationship is concluded. For example, an individual should be barred from handling of scientific decision making (peer-reviews, panels, funding, policy, etc.) if they are conflicted in among the following ways:

- Lifetime for academic advisee/advisor relationship.
- 5-Years for scientific collaboration on a project, report, or paper.
- 5-Years for having worked at the same institution.
- 5-Years for having had any financial or political interests, or potential to gain or lose.
- Any of the above concerning family members.

Moreover, intentional violations of conflict of interest rules should be considered scientific misconduct.

The Policy should go beyond a simple definition of conflict of interest by strengthening the disclosure of and reducing conflict of interest among employees and reviewers.

Section 3.7B(1) states:

“I will place quality and objectivity of scientific and scholarly activities and reporting of results ahead of personal gain or allegiance to individuals or organizations.”

This statement implies a subjective and personal managing of conflicts of interest that could be dangerous. This statement needs significant revision to report on and remove employees from real and perceived conflicts of interest situations.

Section 3.7B(6) states:

“I will provide constructive, objective, and professionally valid peer review of the work of others, free of any personal or professional jealousy, competition, non-scientific disagreement, or conflict of interest.”

This statement also encourages a scientist to internally manage their own conflicts of interest. This statement needs to be modified to direct the scientist to voluntarily declare any conflicts of interest and excuse themselves from the peer review.

Dr. GOSAR. So, if I heard it right, Mr. Bakst, that would be an illegal activity. I just heard it from Mr. Clement.

Mr. BAKST. Well, assuming that is true, then yes, that would be illegal. That is—

Dr. GOSAR. Now, reassignment, to be honest with you, I am one of those people that demanded somebody be reassigned. And that was a gentleman out of the Southwest Fish and Wildlife Service that actually violated the law in the Lake Havasu issue. So, reassignment was critical to keeping task and science at hand.

Now, I want to get back to the Obama administration. My good friend from California made the comment about the Minnesota withdrawal. Let's talk about that. This is a bogus probe by the Democrats on this Committee that involved a potential twin metals mine in Minnesota. Democrats have FOIA'd DOI, sent a bunch of letters, and made a bunch of false claims, only to be proven wrong by one of their own.

In an e-mail sent by Democrat Senator Amy Klobuchar, Klobuchar's e-mails prove that what the Obama administration did with this 425,000 acre land grant in northern Minnesota, the day before President Trump was sworn in, was not based on science or process, and was purely a political decision.

And my comrade from the other side from California got it wrong. This had nothing to do with the Boundary Waters. We had this discussion over and over again. We want to make sure the people have all the facts in that regard. Can you add anything to that, Mr. Bakst?

Mr. BAKST. I mean, my response would be that there can be disagreement among scientists. Just because a project doesn't move forward that was in a previous administration, there might be many reasons why that didn't happen. It might be because the current administration, the scientists that they are working with don't think that it should move forward. Not everything is necessarily an assault on science.

Dr. GOSAR. Thank you. I yield back.

The CHAIRMAN. Mr. Cartwright.

Mr. CARTWRIGHT. Thank you, Mr. Chairman, and thank you to all our witnesses who came today.

I want to talk about Federal employees or Federal contractors engaged in scientific research analyzing the results of scientific research, communicating the results of scientific research, or making policy decisions based on the results of scientific research. And this is one of these “raise your hand” questions. I think we may have unanimity on this.

How many of you would agree that these people that I just described, listed, should be prohibited from engaging in dishonesty, fraud, deceit, misrepresentation, coercive manipulation, or other scientific or research misconduct? Go ahead and raise your hands.

[Show of hands.]

Mr. CARTWRIGHT. And I am gratified to see that all four of you did.

How many people think that these people should be prohibited from suppressing, altering, interfering with, or otherwise impeding the timely release and communication of scientific or technical findings? Go ahead and raise your hand.

[Show of hands.]

Mr. CARTWRIGHT. OK. Mr. Bakst, you are not raising your hand.

Mr. BAKST. I don’t have the context in that last example. There might be a reason why the timely release may not make sense.

Mr. CARTWRIGHT. OK. And how many of you would agree that these people should be prohibited from intimidating or coercing an individual to alter or censor, or retaliating against an individual for failing to alter or censor, scientific or technical findings? Raise your hands.

[Show of hands.]

Mr. CARTWRIGHT. OK. And how many of you would agree that these people should be prohibited from implementing institutional barriers to cooperation and the timely communication of scientific or technical findings? Go ahead and raise your hands.

[Show of hands.]

Mr. CARTWRIGHT. Again you are hesitating, Mr. Bakst.

Mr. BAKST. I was just thinking about what you are referring to.

Mr. CARTWRIGHT. And how many of you are scientists, please? Raise your hands.

[Show of hands.]

Mr. CARTWRIGHT. And Mr. Bakst, you are a lawyer. Is that correct?

Mr. BAKST. I am.

Mr. CARTWRIGHT. And you are employed by The Heritage Foundation?

Mr. BAKST. I am.

Mr. CARTWRIGHT. My understanding is that you are employed by The Heritage Foundation primarily in the agricultural area. You write articles about agricultural policy for The Heritage Foundation. Right?

Mr. BAKST. Environmental policy and regulatory process.

Mr. CARTWRIGHT. Are you the Mr. Bakst that wrote, “Three Reasons Why USDA Should Not Give Special Aid to Farmers Hit by Tariffs,” on May 20, 2019?

Mr. BAKST. I am.

Mr. CARTWRIGHT. You are that guy. OK. What I was just reading to you from was my colleague Mr. Tonko's bill, the Scientific Integrity Act. And it prohibits all of those things that I mentioned. And that is why I am a proud co-sponsor, along with 203 other Members of the Congress.

Given, really, the bipartisan nature of support for this, I urge my Republican colleagues to jump on board, particularly those who are engaging in the "whataboutism" that we have heard today. Well, it is OK because the prior administrations under Democratic control did it.

If you believe in scientific integrity, you should be a co-sponsor of the Scientific Integrity Act sponsored by Mr. Tonko for these reasons and the other ones expressed today.

I want to thank all of you for appearing today and shedding light on this important topic. Thanks so much, and I yield back, Mr. Chairman.

The CHAIRMAN. All right. Mr. Curtis, the time is yours.

Mr. CURTIS. Thank you, Mr. Chairman and Mr. Ranking Member. I am pleased to be here today. I want to try to express some thoughts that I have had about this that may run a little counter to what you otherwise hear.

I deeply regret that, when it comes to the environment, we make this such a partisan issue. And I think if we are going to make progress, we need to figure out how to not make it a partisan issue. There are three areas where I feel like we are missing the mark in making progress, and I would like to briefly explain those, and then, to the extent time allows, have you comment on these three areas.

One of them is a word that I hear bantered around a lot that just adds to the divisiveness, which is a climate denier. And I think it is, to be frank, frequently Republicans are accused of being climate deniers. And I have thought a lot about this.

I don't know anybody personally, and I come from the state of Utah—who I claim are the best environmentalists in the world, we just talk about it in a different vocabulary—that doesn't want to leave the environment better than we found it.

And I have thought about this term climate denier, and I want to give it a new definition. And maybe even in doing so I am going to make it more divisive than it already is. But it seems to me that in this discussion, there is so much emphasis on the United States reducing carbon emissions. And if I understand the science, we are about 15 percent currently of the carbon that is admitted into the atmosphere.

And, therefore, if we are not willing to talk about the other 85 percent, it seems to me that the real climate deniers are the ones who are trying to put 100 percent of this burden on the United States and leaving out the rest of the world in this conversation, and trying to feel like we can solve this by ourselves. So, that is the first area that I am curious to get your thoughts on.

The second is what I see, and I call the shaming, which is that we are trying to motivate people to be better environmental stewards by shaming. And, too frequently, I see us doing that, and my experience is that turns people off on this discussion instead of engaging them, and that we need to figure out a way to reward and

incentivize good behavior instead of shaming the behavior that we don't like.

And the third area that I would bring up for your thoughts and consideration is this concept that I call "moving the bar," and that is this idea that as soon as somebody reaches a level of environmental stewardship that is better than where they have been, we are very quick to say, "I am sorry, that is not enough. You need to do more." And we move that bar. Let me give you a really good example.

I was the mayor of my city. At the time, we were heavily dependent—it was municipal power city. We were burning almost exclusively coal. And I was told by many people, "Wow, if you could just move to natural gas, you would do wonders." Well, the moment we moved our city heavily to natural gas, I was told, "Now natural gas is bad," and got the shaming effect, if that makes sense. At least, this is connected.

So, I am curious to know your thoughts on, really moving forward, making this an issue that is not partisan on these three issues which I think are dividing us pretty substantially. And I don't know where to start, but if any of you want to jump in. And we have just a minute and 18 seconds, so if you could be brief and give me your thoughts, that would be helpful.

Dr. ROSENBERG. Thank you for that, Congressman. I think these are important points.

First of all, I don't know anyone, certainly anyone in the science community, that thinks that the United States should solve this climate problem—100 percent of the burden should be on the United States. I don't hear that from any scientists.

Mr. CURTIS. Let me clarify, I don't think it is the scientists. I think it is the politicians that I hear that from.

Dr. ROSENBERG. Well, I think that may be true. And I will leave that, thank you. But that is not at all what the scientists say. But many people in this discussion believe the United States should be a real leader, and I think we probably can agree on that.

On the shaming issue, I think that I entirely agree with you. I think that shaming doesn't help in a discussion to find solutions. And the point is not shaming unless there is real malfeasance involved. Unfortunately, sometimes there is. And I think that there are intentional efforts to misinform, intentional efforts to misdirect, and I think that in those cases they should be called out.

Moving the bar, I think, is a really important and interesting issue. And I would say the problem is that a scientist, looking at the natural world, when you ask, "Well, we got rid of coal. Is natural gas not enough?" I look at the natural world and say, "Well, is that enough?" And, unfortunately, the answer is no. I am not doing this to punish. I am simply trying to respond as a scientist to the information.

Mr. CURTIS. I am afraid I am out of time. I would love to hear from all of you.

And Mr. Chairman, if you would allow me to just say, in conclusion, when I speak of shaming, I am talking about my constituents, not people who would be on your radar, if that makes sense. Unfortunately, I have yielded my time. I wish we had a chance for you all to respond.

The CHAIRMAN. Thank you. The basis of the discussion on this hearing is the piece of legislation that the next gentleman who is going to ask questions of the witnesses has introduced and spearheaded. Mr. Tonko, 5 minutes.

Mr. TONKO. Thank you, Mr. Chairman. I appreciate your holding today's hearing on scientific integrity. I thank Chairman Grijalva, and I do thank each and every witness that has appeared here today to shed light on this topic.

There is no question that this issue presents a new urgency in our current administration. But I think we can all agree that scientific integrity is an issue that demands proper oversight regardless of which party is in the Speaker's chair or the Oval Office.

Scientific integrity is not partisan. Good policy and decision making have always and will always rely on a discussion of facts informed by a scientific process that is protected from both political and financial distortion. This is especially true at Federal agencies, including the Department of the Interior, responsible for administering scientifically grounded protections such as the Endangered Species Act.

One way we can ensure our Federal agencies are conducting science of the highest caliber that upholds the public good is by building a professional culture where the best and brightest scientific minds can thrive without fear of suppression, distortion, or retaliation.

America's scientists should feel supported in their advancement as researchers and know that they are able to conduct their research without being mistreated or unduly pressured by political or special interests. Unfortunately, as we have heard, that is not the case today at the Department of the Interior.

Dr. Caffrey and Mr. Clement, this question is for each of you. Based on your own experiences and those of your colleagues, do you believe scientists at Interior feel like sound, objective science is a priority for this administration?

Dr. CAFFREY. Based on my experience, I think my colleagues don't think that that is a priority, that this administration is not supporting them in their science. And I know of other colleagues that cannot talk publicly right now because they are in fear of losing their positions. They have experienced exactly the same pressure to remove words as I have.

Mr. TONKO. Thank you. Mr. Clement?

Mr. CLEMENT. I will just add that I think that scientists and career staff at Interior think that objective science is seen as a threat to the political appointees at Interior.

Mr. TONKO. Thank you. And what message are we sending when young scientists considering public service see these efforts to distort, suppress, or retaliate against scientists for their work?

Mr. CLEMENT. It is so hard to attract good talent at Federal agencies when it is publicized that these, for example, scientists are being attacked in this way. You don't necessarily need to influence policy. Not everyone thinks they are going to do that.

But they do expect to be able to publish, go to conferences, further their career as scientists. And when even that is not allowed and you have this culture of suppression and censorship, it really turns off any potential talent you could attract.

Dr. CAFFREY. And I will add to that that they are also losing a lot of talent right now. Even if someone is not speaking out in such a public fashion like we are, there are people that are just moving on to other positions because of the pressures being put on them.

Mr. TONKO. And how could this affect the everyday lives of the American people?

Mr. CLEMENT. I worry about this a lot, partly because of the impacts of climate change because that is such a hushed issue at Interior. Lives are put at stake, health is put at stake, when you don't publish those reports about the toxicity about certain chemicals, if you are leaving your offshore oil rig workers exposed to certain safety threats because you canceled a National Academy study into that very issue halfway through. You are putting Americans at risk, and of course public lands as well in the case of Interior.

Mr. TONKO. Thank you. This is an oversight hearing, and oversight teaches us important lessons for how we can and should do better going forward. I am proud to have introduced H.R. 1709, the Scientific Integrity Act, which would protect public scientific research and reports from the influence of political and special interests with robust scientific integrity standards at America's science agencies.

Dr. ROSENBERG, today we have heard about numerous breaches of scientific integrity at Interior that have exposed the American people to danger, whether by undermining public health and the environment or furthering the climate crisis.

How would stronger scientific integrity standards help prevent or address some of those issues we have discussed here today?

Dr. ROSENBERG. I think the fundamental thing that the Scientific Integrity Act would help do is get the information out in the public sphere. It no longer could be hidden. Scientists could speak out, and political manipulation of that information would be revealed. In other words, people would have to justify their decisions on their merits, not by constructing a false scientific argument for why it should be done.

Mr. TONKO. Mr. Chairman, I have other questions that I wanted to ask. I see my time is up. But I just want to make this observation.

Both sides have cited failure or have condemned actions of political parties in the past. If you believe in science and scientific integrity, we should have learned from that past and look for a reason not to do this, but to be compelled by having integrity be the guiding tool, the guiding force and move forward and provide for a process that will guarantee that.

With that, I yield back. Thank you, Mr. Chair.

The CHAIRMAN. Mr. Gosar.

Dr. GOSAR. I thank the Chairman.

My colleague from New York says it very, very well, and it is no different than policy. When you have good process, you build good policy, it builds good politics, plain and simple. And when my friend from Utah was talking about the climate accord, once again this is highlighted by that problem.

What the whole deal with the Paris Climate Accord was that the United States was going to pay for it. That is the key here. And once again, it defied this principle. So, good process, good policy,

good politics would have been to bring it back as a treaty where it could have been discussed properly. That would have built a good policy to engage, and it would have been good politics all the way around.

But the previous administration chose not to do it that way. They engaged in that aspect.

Mr. Clement, real quickly, I just want to have a question anthropologically. How did the Native Americans get to North America?

Mr. CLEMENT. Well, this is getting off the topic of scientific integrity. They traveled across the Bering Land Bridge to get to North America.

Dr. GOSAR. And how was that possible?

Mr. CLEMENT. It was possible because there was a time during an ice age when the sea level was lower than it is now.

Dr. GOSAR. Interesting. And also probably some plate tectonic movements. Would you not agree?

Mr. CLEMENT. I am not aware of that, sir.

Dr. GOSAR. Well, you are familiar with plate tectonics, are you not?

Mr. CLEMENT. I am certainly aware of that. And I am also aware of the multiple lines of scientific evidence that make it very clear that climate change is real, it is dangerous, and it is human-caused.

Dr. GOSAR. Well, let me ask you a question. Is there ever one year the same as another?

Dr. ROSENBERG. No. I think you are talking about weather.

Dr. GOSAR. No, no. But that is what you are doing because weather is one year after another, but an accumulation over a long period of time. So, my question is: If climate change is what you are talking about, how do we find fossilized fish in southwestern Wyoming?

Dr. ROSENBERG. I think taking this back to scientific integrity, the topic of the hearing, I think it is important to acknowledge that the Earth's climate has certainly changed over a long period of time. But the issue at play right now is about scientific integrity in the agencies, and I think it is very important that we consider the multiple lines of looking at it.

Dr. GOSAR. My understanding, reclaiming my time, is that you have to have accumulation over time. We occupy such a small part of history of the Earth that it is very hard sometimes to extrapolate that. So, the comments that I was coming back to, my gentle friend from Utah, was exactly that. I don't think anybody denies that climate is always changing. I think there is nobody that will say that.

But I think the priorities are what can man do, and what cannot man do, like i.e. the sun? Would you agree with me that the sun has more implications on our weather and climate than does man?

Dr. ROSENBERG. The climate has certainly always changed. There is no question about that. The climate has not changed at this pace and to this extent during the course of human civilization.

Dr. GOSAR. Well, has the Earth changed dramatically before man, at a more rapid scale?

Dr. ROSENBERG. It certainly has. During the time of the dinosaurs, of course, they were wiped out by a very dramatic change.

Dr. GOSAR. Yes. It did.

Dr. ROSENBERG. Sixty-five million years.

Dr. GOSAR. With my remaining time, I want to go to you, Mr. Bakst. In your testimony, you describe how species were commonly listed under the Obama administration based on settlements that occurred behind closed doors with advocacy groups. Clearly, these listings were not based on science, and "sue and settle" was abused by the previous administration like never before.

Can you elaborate how science was not utilized in these decisions?

Mr. BAKST. Well, one of the problems with "sue and settle" is we don't know what has happened behind the closed doors. The public doesn't have a voice, other parties besides the government agencies and the environmental groups. Suing the agency, only they know what is actually going on. It is hard to challenge it.

So, whether or not there is science actually involved, who knows? We don't know. So, with the Hine's emerald dragonfly, for example, the example that I used in my testimony, the previous administration basically did not think it should be listed. Then the Obama administration said it should be.

Critical habitat acreage went from 13,000 to 26,000 acres. We have no idea why. I mean, this is a process question. And one of the things that President Obama said in his memorandum was that the public needs to have trust in the scientific process, not just the science.

Well, you cannot have trust in a scientific process when you are not even a part of the process and you don't even know whether or not science is even involved in the process. And that is what "sue and settle" does. We need to address that, definitely.

Dr. GOSAR. I thank you, and I yield back.

The CHAIRMAN. Mr. Neguse, the time is yours.

Mr. NEGUSE. Thank you, Mr. Chairman. I appreciate the opportunity. Thank you for holding this hearing.

I first just want to say I am a new lawmaker, a freshman lawmaker like some of my colleagues, and I have participated in many hearings this year. And there is a term that I have heard quite often, "political theater."

I heard it at a Committee hearing that we held this morning in the Judiciary Committee on the Administration's disastrous child-family separation policy, and heard it earlier today. And with all the respect in the world for my colleague, I would just say that these topics merit consideration and attention by the committees of jurisdiction.

And in this case, I am thankful that the Chairman has empaneled this hearing on scientific integrity, and with respect to Representative Tonko's bill, the opportunity for us to delve deeper on that front. And I find it a bit odd, or perhaps absurd, for individuals to describe these hearings as political theater when apparently they are participating in the hearings. But I digress.

Thank you again, Mr. Chairman. I have the honor of representing Colorado's 2nd District, which includes the University of Colorado Boulder and Colorado State University. And my district

is about 50 percent public lands. So, it would come as no surprise to many that today's topic is of critical importance to myself and my constituents.

The work of scientists in my district relies on the freedom to share scientific research in its entirety without political interference, intimidation, or the removal of important facts. This issue goes far beyond one paper being censored or one scientist being told not to use the term climate change. It is a threat to the future of our scientific work force. It undermines the gold standard, the peer review process that research undergoes in this country, and ultimately lead to poor policy making.

So, with that in mind, I would like to welcome Dr. Caffrey, and I apologize I was not here to welcome you earlier as a constituent. We are honored to have you here before our Committee. I want to thank you for having the courage to share your story, not just today with all of us but previously.

I have been following your story closely, as you may know, not just because it is such a blatant violation of the scientific principles we should all believe in, but also because you conducted your research at the University of Colorado Boulder, which happens to be both in my district and is my alma mater. So, your story certainly hits home for me.

In fact, I specifically brought up your experience of climate censorship to Secretary Bernhardt when he testified where you are sitting, in front of the Committee, just a few months ago, in May. Following that hearing, I sent a letter to the Department of the Interior Office of the Inspector General, requesting that the investigation into your case be reopened and completed. I would like to ask unanimous consent for that letter and the OIG's response to be submitted for the record. I will do so at the conclusion of my remarks.

Unfortunately, DOI OIG responded less than 2 weeks later, stating, "The OIG will not reopen the matter because the report was issued as written. There is no apparent evidence of scientific misconduct, and our OIG resources were needed on higher priority matters."

Dr. Caffrey, do you agree that the report was published as originally authored?

Dr. CAFFREY. I completely disagree. I had one of my co-authors, Dr. Patrick Gonzales, he removed his name, in part because he was dealing with his own scientific integrity violations. He had a scientific article at the same time that he was attempting to release that was having those exact same words removed from it.

Mr. NEGUSE. Do you agree, Dr. Caffrey, that instances of climate censorship as you experienced it and your colleague's, should be high on OIG's list of priority matters?

Dr. CAFFREY. Absolutely.

Mr. NEGUSE. I suspect you have seen the letter from the OIG. In that same letter, I requested that the OIG investigate the retaliation that you outlined in your testimony. They responded that they believe that there was "insufficient evidence" to open an investigation.

Do you believe that that response is a satisfactory one?

Dr. CAFFREY. No.

Mr. NEGUSE. Well, we are certainly going to continue to call attention to your case in particular, and to try to do what we can to hold the folks at the Department of the Interior accountable. I appreciate again your courage in sharing your story, and I think your story underscores why Representative Tonko's legislation is so critically important.

Finally, Dr. Rosenberg, I am just going to give you an opportunity to respond to some of the prior exchange. I was going to ask you a specific question about the secret science rule, but the exchange that I witnessed earlier underscored for me that perhaps folks that are here at this side of the dais should stick to policy making and we should let the scientists stick to science. Perhaps you can expound upon that.

The CHAIRMAN. Unfortunately, Doctor, you have about 14 seconds to expound.

Dr. ROSENBERG. Now 11. Thank you, Mr. Chairman, and thank you for the question.

I do believe that there has been a great switch to talking about scientific misconduct, which has mechanisms in place to address within our system, compared to scientific integrity, which is the misconduct of others to suppress science. I think the focus should be on scientific integrity. And that is all I have time for.

The CHAIRMAN. Mr. Bishop, the time is yours, sir.

Mr. BISHOP. Thank you.

I am sorry Mr. Cartwright had to leave again, as did many of the others, because he made a unique distinction between employee and contractors and what kinds of options and rights that you have.

Ms. Caffrey, is it correct you were never a full-time employee of the Park Service. You were a contractor. Correct?

Dr. CAFFREY. No. I was a partner. I was not a contractor.

Mr. BISHOP. No. That is not, you were a—were you ever a full-time employee?

Dr. CAFFREY. Of the National Park Service?

Mr. BISHOP. A full-time employee of the Department of the Interior. Ever.

Dr. CAFFREY. No.

Mr. BISHOP. OK. You were a contractor, then. There are different—

Dr. CAFFREY. No, I was not.

Mr. BISHOP. Yes. You can make those distinctions if you want to, but it doesn't make a difference.

I do want entered into the record, though, what the Inspector General has reported about your situation because it has been written as being moot because your report was published without edits. That is the official statement from the Inspector General. If you want to challenge the Inspector General for any other reason, you do that. But that was the official statement that was going there.

But let's move above that. Actually, how much were you paid for your work?

Dr. CAFFREY. \$25,000. In the last year, I was bumped down to an intern status.

Mr. BISHOP. What is the total amount? Because—

Dr. CAFFREY. Oh, for the actual grant?

Mr. BISHOP. For everything, yes.

Dr. CAFFREY. Somewhere over \$500,000 that was paid.

Mr. BISHOP. So, you got a half a million dollars for what you were doing.

Dr. CAFFREY. I did not, no. The University of Colorado did.

Mr. BISHOP. It is nice, but that is what was the contract, which is why you were a contractor.

Mr. BAKST, let's move on to that as to something that is distinctively different here. Can you discuss any valid or legitimate reasons why any administration, Republican or Democrat, may want certain portions of a contractor-drafted report to be edited?

Mr. BAKST. Sure. I mean, I think there is this assumption that it is just because of—out of bad faith. But there are many reasons why. And I am not necessarily referring to the specific instance, but just generally. The language may not be science in nature, as we talked about. It might just be opinion. It might not be describing what is but what should be, so that is not exactly a scientific decision. The substance of a report may be disconnected with the purpose of the report.

Mr. BISHOP. So, all these things you are talking about, is there a distinct difference between what you referenced here and malicious stifling of scientific integrity and research?

Mr. BAKST. Yes. Because, quite honestly, like I am saying, in these instances there are legitimate reasons why the Government may choose not to move forward with a particular report, including ensuring that the science has integrity, has been peer reviewed properly, that it is accurate, it is reliable, and it is reproducible.

Mr. BISHOP. We are witnessing one of the unique phenomenon during this administration, where FOIA requests are up, actual complaints are significantly down. But we did see in the prior administration when there are significant amounts of accuracy complaints, and yet some people said nothing at that particular period of time.

I remember being here when Dan Ashe simply said that if there is little information available—talking about a specific ESA issue—then oftentimes we go to the experts and ask the experts for their best professional judgment. And that becomes our policy. Does that statement embody to you the best available science or scientific integrity?

Mr. BAKST. That is the exact opposite of what should be done. If there is too little information available, then the Federal Government should just be honest about that fact and not overstate its case and not draw conclusions, and just explain what it does know that can flow from the information available.

Mr. BISHOP. But that is exactly what happened in the last administration. So, in your actual opening testimony, you also talked about the quote from the President back then in 2009 about what they hoped to be as far as transparency. Did the previous administration achieve that goal that it laid out in the quote?

Mr. BAKST. No. Not really. I think you saw that with Dr. Houser's incident. You see that with the examples I talked about with the water rule, you see that with sue and settle issues which are unprecedented during the Obama administration, and other

many examples that are both included in my testimony and elsewhere.

Mr. BISHOP. Including with—and I appreciate you talking about the sue and settlement concept with Mr. Gosar as well. When we have certain groups like the Center for Biological Diversity that has 143 lawsuits going on right now, does that lend itself to greater scientific integrity, or does it lend itself to more political decisions being made behind closed doors?

Mr. BAKST. That is political decisions being made behind closed doors. If it was not, it should be transparent and allow the public to participate in the process and let us test the science. For that discussed today, I don't really know that anybody really disagrees with that. Let's make sure the best science is used.

Mr. BISHOP. OK. So, I don't have to actually yield back. I don't owe you 2, 3, 4, 5 seconds more. I thank you and yield back, and I think you have illustrated some of the problems we have in looking at this administration versus past administrations and having a dual standard. That is why this is somewhat of a partisan hearing. Somewhat. A little bit. Slightly.

It is your time, Mr. Grijalva.

The CHAIRMAN. Thank you. Let me recognize a very patient gentleman, Mr. Clay. The time is yours.

Mr. CLAY. Thank you, Mr. Chairman. I would hope that we would not veer too far off course in this Committee. The topic is scientific integrity. And I do remember 4 years ago the last hearing we had on this subject, and it seems like a replay in some respects because we still have those on the other side who want to deny climate, want to deny science, and we know that policy decisions should be based on facts and informed by sound scientific research.

And with that, let me go to Dr. Caffrey. Could you recall any other specific argumentative points or scientific-based reasons from the National Park Service for the removal of your references?

Dr. CAFFREY. No. And, in fact, I was in a meeting where at one point they completely dropped their defenses and said, "We have to remove this because we could lose the Climate Change Response Program if this report includes this information because it is not consistent with what the Trump administration wants," not—

Mr. CLAY. And had no real argument against your sound reasoning?

Dr. CAFFREY. No. Initially they used their objection because I used the word anthropogenic. But then when I was in a meeting, I actually had the Associate Director slapping papers on the desk, saying that he cannot allow this to happen because if that occurs, he could be relocated to somewhere else in the country. He could be replaced with someone who would not be as nice to me as he is.

I had another colleague take me outside, walk me around the building, and she said she didn't want to be reassigned because she has children, and that I should think about her children. So, they completely dropped their defenses on the scientific reasoning.

Mr. CLAY. It sounds as though they lacked a real backbone.

Dr. CAFFREY. Correct.

Mr. CLAY. Let me ask Dr. Rosenberg, in your testimony you mention President Trump's recent Executive Order to cut the number of agency advisory panels by one-third.

Do you think this decision positively or negatively impacts environmental justice leaders in their communities?

Dr. ROSENBERG. I think it negatively impacts environmental justice leaders and the causes they are fighting for.

Mr. CLAY. OK. Let me ask Mr. Bakst, while reading through your recommendations, I saw one point suggesting agencies, and I quote, "Agencies should appropriately qualify any conclusions, including where there might be doubts regarding science." Do you really believe that, Mr. Bakst?

Mr. BAKST. You are talking about in my written testimony?

Mr. CLAY. Yes.

Mr. BAKST. Should they qualify—yes. They should not draw conclusions—

Mr. CLAY. Make conclusions—

Mr. BAKST [continuing]. Based on what the science actually tells them.

Mr. CLAY. And you say where there might be doubts regarding the science.

Mr. BAKST. Right. Where there might be doubts in the science, they should articulate the fact that there are uncertainties that exist and not go beyond making something sound definitive.

Mr. CLAY. So, who would qualify or challenge the science? Would it be another scientist, or would it be someone, say, like you who just doesn't believe it, or what?

Mr. BAKST. No. First of all, actually, ideally what would happen is the public would be able to challenge it. That is why I have been strong about advocating the Information Quality Act. The science should be able—

Mr. CLAY. The public—excuse me—the public should challenge the science?

Mr. BAKST. The public, including scientists, should be able to use the Information Quality Act. First of all, IQA does allow requests for correction and the ability to go to agencies to challenge the science.

Mr. CLAY. All right. So, do you think you have the credentials to challenge?

Mr. BAKST. No. I am not a scientist. I would not be articulating a scientific—I am not trying to make a scientific argument. I would not be there. And I am not making it today. I am making policy arguments. And it is important that those distinctions be drawn.

Mr. CLAY. And it sounds as though you just refuse to accept the science. Is that what this comes down to?

Mr. BAKST. No. All I have been talking about—

The CHAIRMAN. That you don't agree with the science?

Mr. BAKST. Actually, the entire testimony in my testimony today and the world testimony is all about process, and it is about policy. It is not about the actual substance of the science. And for the most part, I don't think my colleagues here on the panel have been discussing too much of the science, either.

Mr. CLAY. Well, my time is up, and it looks like I am going to have to yield back. But, I mean, this is incredible.

The CHAIRMAN. Thank you, Mr. Clay.

Mr. BISHOP. That is the way it is with all cardinals, Mr. Clay.

The CHAIRMAN. Mr. Cunningham, the time is yours.

Mr. CUNNINGHAM. Thank you, Mr. Chair, for holding this important hearing. And I want to thank the witnesses for testifying on their scientific integrity experiences at the Interior Department. And thank you for your time here today.

In my past life, before being elected to Congress, I worked as an ocean engineer. And at a very basic level, engineering is the practice of applying scientific principles to solve real-world problems, whether it is to build a bridge, or create new types of medicine, write software, or protect marine resources.

But if you don't use the most objective and recent science, engineers will inevitably make bad decisions that produce bad results. In many ways, these same principles apply to decision making in Federal agencies. And as we have heard here today under both former Secretary Zinke and now under Secretary Bernhardt, there has been no shortage of bad decisions made with limited transparency. Science itself is clearly under attack.

And this is especially true when it comes to offshore drilling. And since January 2017, there have been multiple instances of the Interior Department basing its offshore oil and gas decisions on politics as opposed to sound science. And Interior has tried to mislead the public about what exactly is happening.

Interior halted a National Academy of Science study on improving inspections of offshore oil and gas development. The Interior rolled back offshore oil and gas regulations developed following the Deepwater Horizon explosion oil spill. And most recently, Secretary Bernhardt has decided to hide the 5-year plan until after the 2020 Presidential election because the Administration knows full well that leasing off the coast of South Carolina and Florida would come with significant political risk.

So, Dr. Rosenberg, can you discuss some of the ways scientific integrity and transparency are under attack at the Interior Department, especially as they relate to offshore oil and gas development?

Dr. ROSENBERG. Yes. Thank you, Congressman, for your comments. And it is great to have a fellow ocean scientist here.

The types of attacks really are sidelining the science completely from the discussion, and in many cases, from our information, that means that the scientists and the professional staff are not even part of the decision-making process. They are not even in the room.

So, moving forward with actions on offshore oil and gas, including leasing actions, the safety actions, and others are being taken at a political level without developing the appropriate information as they go forward. And, unfortunately, we are seeing that in other bureaus on other kinds of areas in the Department as well, including those that are cited in my testimony.

So, it really is a full-scale sidelining of the science from the process of making those decisions. And that means that you can make a wholly political decision. You no longer have the facts to constrain you.

Mr. CUNNINGHAM. Thank you, Dr. Rosenberg. And as the old saying goes, everybody is entitled to their own opinion, but not

everybody is entitled to their own facts. Right? We should agree on, objectively, a set of facts to work from.

Dr. ROSENBERG. That is correct.

Mr. CUNNINGHAM. Thank you for that.

Mr. Clement, in 2004, Hurricane Ivan hit the Gulf of Mexico and caused an underwater mud slide that destroyed the Taylor Energy oil platform, which has resulted in the longest oil spill in U.S. history, and a spill that is still occurring here today.

And now, while it is difficult to say that Hurricane Ivan was the result of climate change, I think there are lessons we can learn from this event that should—should—influence current and future decision making. Climate change is going to result in sea level rise, and storms and hurricanes that batter the Atlantic coast will increase in intensity.

It is reasonable to assume that this increased storm intensity as a result of climate change will increase the likelihood of oil spills and accidents that could cripple local coastal economies like those in South Carolina should offshore drilling come to our state.

So, my question to you is: Do you think the Interior Department should incorporate the risk of climate change into decisions about whether to open new regions like the South Atlantic to offshore oil and gas development?

Mr. CLEMENT. They absolutely should, in many ways. We don't always attribute these calamities of a particular hurricane to climate change, but we know the dice is loaded now. We know that sea level rise is going to affect storm surge levels. We know these hurricanes now speed up very rapidly and they hold a lot more water. So, there is no development, frankly, that should take place without understanding those considerations.

Mr. CUNNINGHAM. Thank you, Mr. Clement. And thank you to every one of the witnesses for coming today. I yield back.

The CHAIRMAN. Thank you very much. And let me also thank the witnesses. And let me recognize myself.

Dr. Rosenberg, the Union of Concerned Scientists, they have published multiple reports on the attacks on science under the Trump administration. One of these reports, I believe, focused solely on the Department of the Interior. Also, you did some polling of Interior employees as well?

Dr. ROSENBERG. That is right.

The CHAIRMAN. Talk about that in terms of both the poll and the different ways that we are seeing science being marginalized, suppressed, and in particular around Interior, if you would.

Dr. ROSENBERG. Yes. Thank you, Mr. Chairman, for the question. In our polling of scientists, which we have done in multiple administrations, as we have evaluated what we view as compromises of scientific integrity in previous administrations as well, we have found that a majority of scientists within Interior are now saying that political interference in their work is one of the predominant reasons why they are struggling to put forward the information they need.

We have found that a majority have said they would be afraid to file a scientific integrity complaint. So, to the data that was put up before, the reason complaints are down is because people are

afraid to file them, and that there are not the processes in place to accept those complaints.

We have found specific instances of intimidation that have occurred, not only those for my colleagues on this panel but many other scientists are reporting that they are not allowed to use certain language. They are not allowed to issue grants. Grants are politically manipulated, and so on.

Many of these kinds of cases are at a much higher rate than in previous administrations. It is certainly the case that there have been compromises in previous administrations. We have been doing these surveys and these analyses back to the George W. Bush administration.

So, the effort to strengthen scientific integrity was not focused solely on the Trump administration, and it has been critical, though, to highlight those cases where science has just been left out of the public policy process, such as in Arizona, as you noted in your opening comments, with artificially constraining the analysis around the development, a very large-scale development, and many others.

The CHAIRMAN. Thank you very much.

Dr. Caffrey, Mr. Clement, both your stories are disturbing, truly disturbing. And it is true that both your professional and personal lives have been forever changed and altered, and there has been much personal sacrifice on the part of both of you.

But I want to ask you a question about who else is impacted when science at Interior is threatened, when the empirical information is not available to help guide policy so that there is a basis for policy discussion as opposed to just open-ended, where whoever has the controlling interest controls the policy? What is the basis? And I think science and empirical information provide that to policy makers to have a guide.

Who else is affected? Who else is threatened? The average person out there, how is their life affected if science is suppressed, silenced, and marginalized in decision making and in the work of critical agencies like Interior and EPA, I would say as well. Either one.

Mr. CLEMENT. Yes, good question, Chairman. I think that we can safely say now that we are all affected by many of these conditions. And particularly in the case of EPA, we are just so focused on the health and safety of Americans and these chemicals that have been thoroughly studied.

To suppress those summaries has a direct effect on the grandmother down the street and the grocer. Right? There are more extreme examples that I have described, like the Alaska Natives or the people that live on the Pacific island atolls. A USGS study came out, completely ignored by the Administration, saying they have until mid-century, which is 20 or 30 years—

The CHAIRMAN. We have to move these people, right.

Mr. CLEMENT [continuing]. Before they are going to be unlivable atolls. So, there are people around the world that are being affected by this.

The CHAIRMAN. I appreciate that.

Ms. Caffrey? In the limited time I have left.

Dr. CAFFREY. Yes. Just to build on that as well. From the climate change perspective, we are also short-changing our future generations by denying the science right now. We need to take action. We need to be present. We cannot wait 8 years to take action.

The CHAIRMAN. I want to thank all of you for your valuable testimony, and I appreciate it very much. If there is no further business—without objection, Mr. Bishop's item for the record.

[The information follows:]

Submission for the Record by Rep. Bishop

**Summary: Alleged Scientific Integrity Violations Related to
National Park Service Report**

Report Date: July 10, 2018

Report Number: 18-0706

The OIG opened an investigation based on an allegation that National Park Service (NPS) officials inappropriately sought to remove references to human-caused climate change in an NPS report related to sea level rise and storm surge projections at NPS properties.

Shortly after we opened our investigation, the NPS published the report with all original references to human-caused climate change. Because the report was published without edits, we closed our investigation.

This is a summary of an investigative report that we provided to the NPS Deputy Director.

The CHAIRMAN. The members of the Committee may have some additional questions to the witnesses. Please respond to those in writing. The Members will have 3 business days following the hearing to submit questions. If there are questions, we will forward those to you and we would appreciate your responses very much. And any additional information that you feel is pertinent, please forward it as well.

With that, the meeting is adjourned. Thank you very much.

[Whereupon, at 4:10 p.m., the Committee was adjourned.]

[ADDITIONAL MATERIALS SUBMITTED FOR THE RECORD]

Submissions for the Record by Rep. Grijalva

October 4, 2017

Secretary Ryan Zinke
 U.S. Department of the Interior
 Washington, DC

Dear Secretary Zinke:

I hereby resign my position as Senior Advisor at the U.S. Department of the Interior (DOI).

The career men and women of DOI serve because they believe in DOI's mission to protect our nation's natural and cultural resources and they believe that service to this country is a responsibility and an honor. I'm proud to have served at DOI alongside such devoted public servants, and I share their dedication to the mission and country, so it is with a heavy heart that I am resigning as a senior official at the Department. I have three reasons for my resignation:

Poor Leadership. I blew the whistle on the Trump administration because I believe you unlawfully retaliated against me for disclosing the perilous impacts of climate change upon Alaska Native communities and for working to help get them out of harm's way. The investigations into my whistleblower complaints are ongoing and I hope to prevail.

Retaliating against civil servants for raising health and safety concerns is unlawful, but there are many more items to add to your resume of failure: You and President Trump have waged an all-out assault on the civil service by muzzling scientists and policy experts like myself; you conducted an arbitrary and sloppy review of our treasured National Monuments to score political points; your team has compromised tribal sovereignty by limiting programs meant to serve Indians and Alaska Natives; you are undercutting important work to protect the western sage grouse and its habitat; you eliminated a rule that prevented oil and gas interests from cheating taxpayers on royalty payments; you cancelled the moratorium on a failed coal leasing program that was also shortchanging taxpayers; and you even cancelled a study into the health risks of people living near mountaintop removal coal mines after rescinding a rule that would have protected their health.

You have disrespected the career staff of the Department by questioning their loyalty and you have played fast and loose with government regulations to score points with your political base at the expense of American health and safety. Secretary Zinke, your agenda profoundly undermines the DOI mission and betrays the American people.

Waste of Taxpayer Dollars. My background is in science, policy, and climate change. You reassigned me to the Office of Natural Resources Revenue. My new colleagues were as surprised as I was by the involuntary reassignment to a job title with no duties in an office that specializes in auditing and dispersing fossil fuel royalty income. They acted in good faith to find a role for me, and I deeply appreciate their efforts. In the end, however, reassigning and training me as an auditor when I have no background in that field will involve an exorbitant amount of time and effort on the part of my colleagues, incur significant taxpayer expense, and create a situation in which these talented specialists are being led by someone without experience in their field. I choose to save them the trouble, save taxpayer dollars, and honor the organization by stepping away to find a role more suited to my skills. Secretary Zinke, you and your fellow high-flying Cabinet officials have demonstrated over and over that you are willing to waste taxpayer dollars, but I'm not.

Climate Change Is Real and It's Dangerous. I have highlighted the Alaska Native communities on the brink in the Arctic, but many other Americans are facing climate impacts head-on. Families in the path of devastating hurricanes, businesses in coastal communities experiencing frequent and severe flooding, fishermen pulling up empty nets due to warming seas, medical professionals working to understand new disease vectors, farming communities hit by floods of biblical proportions, and owners of forestlands laid waste by invasive insects. These are just a few of the impacts Americans face. If the Trump administration continues to try to silence experts in science, health and other fields, many more Americans, and the natural ecosystems upon which they depend, will be put at risk.

The solutions and adaptations to these impacts will be complex, but exponentially less difficult and expensive than waiting until tragedy strikes—as we have seen with Houston, Florida, the US Virgin Islands, and Puerto Rico—and there is no time to waste. We must act quickly to limit climate change while also preparing for its impacts.

Secretary Zinke: It is well known that you, Deputy Secretary David Bernhardt, and President Trump are shackled to special interests such as oil, gas, and mining. You are unwilling to lead on climate change, and cannot be trusted with our nation's natural resources.

So for those three compelling reasons—poor leadership, waste, and your failures on climate change, I tender my resignation. The best use of my skills is to join with the majority of Americans who understand what's at stake, working to find ways to innovate and thrive despite the many hurdles ahead. You have not silenced me; I will continue to be an outspoken advocate for action, and my voice will be part of the American chorus calling for your resignation so that someone loyal to the interests of all Americans, not just special interests, can take your job.

My thoughts and wishes are with the career women and men who remain at DOI. I encourage them to persist when possible, resist when necessary, and speak truth to power so the institution may recover and thrive once this assault on its mission is over.

Sincerely,

JOEL CLEMENT

STATEMENT FOR THE RECORD U.S. DEPARTMENT OF THE INTERIOR

JULY 25, 2019

Chairman Grijalva, Ranking Member Bishop and Members of the Committee, thank you for the opportunity to discuss the scientific integrity enterprise that supports science at the Department of the Interior (Department).

Scientific Integrity at the Department of the Interior

First and foremost, scientific and scholarly information considered in Departmental decision making must be robust and of the highest quality. Most importantly, it must be trustworthy. The Department's reputation for scientific integrity is central to the Department's mission. Our scientific integrity infrastructure has been established over the past decade and it is designed to protect the scientific record, independent of individual administrations. The Department's scientific integrity policy assures the integrity of scientific and scholarly activities it conducts and the science and scholarship it uses to inform management and public policy decisions. Our policy¹ was put in place in 2011, and subsequently the Department was lauded as an early adopter and leader across the federal government for scientific integrity.

The Department's Scientific Integrity Officer for more than three years has been William Werkheiser, a long-serving employee of the U.S. Geological Survey (USGS). During his 30-year tenure in government, he served most recently as Deputy Director of the USGS. Prior to this position, he was the Associate Director for Water, overseeing all aspects of the bureau's programs in water science. He was also appointed Science Advisor to the Secretary of the Interior in February 2019.

The Department defines scientific integrity as the adherence to ethical and professional standards that lead to objective, clear, and reproducible science. We recognize that promoting scientific integrity is critical to protecting science from bias, fabrication, falsification, and plagiarism. The goals and purpose of our policy have not changed since 2011. However, we recognized the need to update the policy and developed a procedural handbook in 2014² to provide procedures and guidance for implementing the policy. These changes strengthened integrity in the Department by building additional supporting infrastructure and by describing the purpose and

¹ <https://www.doi.gov/scientificintegrity>.

² https://www.doi.gov/sites/doi.gov/files/elips/documents/305%20DM%203_%20Handbook%20-%20Scientific%20Integrity%20Procedures.pdf.

process in greater detail. Most recently, Secretary's Order 3369, "Promoting Open Science," signed in 2018, will enhance the Department's reputation as a leader in the field of scientific integrity by making the Department's data, analysis, and methodology more available to the public.

While our policy is well known and objectively embodies the ideals of scientific integrity, this statement focuses on its implementation and the elements that make up the scientific integrity infrastructure here at the Department. This topic was most recently reviewed by the Government Accountability Office (GAO)³ in its April 2019 Report, "Scientific Integrity Policies: Additional Actions Could Strengthen Integrity of Federal Research," which looked specifically at nine agencies including USGS. While that Report found that USGS had taken a number of significant steps to achieve the objectives of its scientific integrity policy, we would like to highlight some of the Department-centric elements not discussed in the GAO assessment.

1. Providing Oversight: Department Scientific Integrity Officer and Bureau Scientific Integrity Officers (BSIOs)

At the Departmental level, the DSIO provides Department-wide leadership and implements the scientific integrity policy. In addition, each bureau within the Department has a Bureau Scientific Integrity Officer (BSIO) responsible for the implementation of the scientific integrity policy at their bureau. All of these employees perform these duties ancillary to their position of record. The DSIO and BSIOs meet twice a year to discuss best practices, creating economies of scale on cross cutting initiatives like training, trend analysis, policy development, and program improvements. The responsibilities of these positions, as well as others in the Department that are integral to the process, are defined in the Department's policies.

2. Procedures for Identifying and Addressing Alleged Violations of the Scientific Integrity Policy

The Department's policy and Handbook also outline the process for addressing violations of the scientific integrity policy, including how to report an allegation, how they are reviewed, and how they are resolved. In summary, scientific integrity allegations can be formally reported to the Office of the Executive Secretariat (OES) ("Formal Allegations") or can be informally reported to scientific integrity staff at a bureau through a scientific integrity ombudsman or mediation route ("Informal Allegations"). Informal allegations are an important mechanism for federal scientists to resolve issues without initiating a formal review, which may not be appropriate depending on the issue. Following review, informal allegations can be elevated to OES by the BSIO as formal allegations. All allegations receive an initial review. The BSIO, if a single bureau is involved, is responsible for the receipt of an allegation and making the final determination as to whether scientific integrity has been lost. The DSIO acts as the decision-maker when an allegation involves multiple bureaus or the Office of the Secretary. The dispensation of all formal allegations is made available to the public on the Department's Scientific Integrity web page (case closed summaries).⁴

3. Training/Educating Staff

Starting in 2015, scientific integrity training has been a requirement for most Department scientists, managers, and leadership, with a special emphasis on understanding the Code of Scientific and Scholarly Conduct, as specified in the policy. The training is periodically updated with input from all of the BSIOs. The training emphasizes how to report an allegation of a violation of the Department's scientific integrity policy and describes protections available from offices outside the scientific integrity program (through the Office of Special Counsel, Office of the Inspector General, Merit Systems Protection Board, and others) to those who make an allegation of a loss of scientific integrity.

³ <https://www.gao.gov/assets/700/698231.pdf>.

⁴ <https://www.doi.gov/scientificintegrity/closed-cases>.

4. Continuing Improvement

Our infrastructure is not static, and we strive to improve and maintain a culture of integrity. In addition to updates to the policy and the creation of a Handbook in 2014 to better implement our policy, now, in response to a recommendation from the 2019 GAO Report, USGS is advancing efforts to measure the effectiveness of its scientific integrity activities. USGS is also responsive to findings of misconduct. As a result of a misconduct finding at the USGS, the bureau is implementing a quality management system (QMS) for all of its laboratories.⁵ The QMS system will ensure laboratory data uphold the bureau's scientific reputation, underscoring its mandate to provide reliable science to address pressing societal issues now and well into the future.

In addition to appointing a senior career Science Advisor and issuance of Secretary Order 3369, the Department is also undertaking other activities related to scientific integrity:

- In April 2019, the Office of Management and Budget issued additional guidance for agency responsibilities under the Information Quality Act, emphasizing quality, objectivity, utility and integrity of information disseminated by federal agencies; the Department is in the process of implementing these changes.
- The Office of Science and Technology Policy (OSTP) announced in May 2019 that the National Science and Technology Council will establish a Subcommittee on Rigor and Integrity in Research to address scientific integrity and other issues; the Department of the Interior is actively engaged with interagency partners on this effort.

Conclusion

The Department of the Interior has a rich and long-standing culture of scientific integrity that prevails independent of individual Administrations. Scientific integrity is a serious matter, and the Department has worked hard to ensure that the scientific activities that it carries out are the result of robust and independent processes.

I'm a scientist. I'm blowing the whistle on the Trump administration.

By Joel Clement
July 19, 2017
Washington Post OpEd

Joel Clement was director of the Office of Policy Analysis at the U.S. Interior Department until last week. He is now a senior adviser at the department's Office of Natural Resources Revenue.

I am not a member of the deep state. I am not big government.

I am a scientist, a policy expert, a civil servant and a worried citizen. Reluctantly, as of today, I am also a whistleblower on an administration that chooses silence over science.

Nearly seven years ago, I came to work for the Interior Department, where, among other things, I've helped endangered communities in Alaska prepare for and adapt to a changing climate. But on June 15, I was one of about 50 senior department employees who received letters informing us of involuntary reassignments. Citing a need to "improve talent development, mission delivery and collaboration," the letter informed me that I was reassigned to an unrelated job in the accounting office that collects royalty checks from fossil fuel companies.

I am not an accountant—but you don't have to be one to see that the administration's excuse for a reassignment such as mine doesn't add up. A few days after my reassignment, Interior Secretary Ryan Zinke testified before Congress that the department would use reassignments as part of its effort to eliminate employees; the only reasonable inference from that testimony is that he expects people to quit in response to undesirable transfers. Some of my colleagues are being relocated across the country, at taxpayer expense, to serve in equally ill-fitting jobs.

⁵ <https://www.usgs.gov/about/organization/science-support/survey-manual/im-osqi-2018-01-quality-management-system-usgs>.

I believe I was retaliated against for speaking out publicly about the dangers that climate change poses to Alaska Native communities. During the months preceding my reassignment, I raised the issue with White House officials, senior Interior officials and the international community, most recently at a U.N. conference in June. It is clear to me that the administration was so uncomfortable with this work, and my disclosures, that I was reassigned with the intent to coerce me into leaving the federal government.

On Wednesday, I filed two forms—a complaint and a disclosure of information—with the U.S. Office of Special Counsel. I filed the disclosure because eliminating my role coordinating federal engagement and leaving my former position empty exacerbate the already significant threat to the health and the safety of certain Alaska Native communities. I filed the complaint because the Trump administration clearly retaliated against me for raising awareness of this danger. Our country values the safety of our citizens, and federal employees who disclose threats to health and safety are protected from reprisal by the Whistleblower Protection Act and Whistleblower Protection Enhancement Act.

Removing a civil servant from his area of expertise and putting him in a job where he's not needed and his experience is not relevant is a colossal waste of taxpayer dollars. Much more distressing, though, is what this charade means for American livelihoods. The Alaska Native villages of Kivalina, Shishmaref and Shaktolik are perilously close to melting into the Arctic Ocean. In a region that is warming twice as fast as the rest of the planet, the land upon which citizens' homes and schools stand is newly vulnerable to storms, floods and waves. As permafrost melts and protective sea ice recedes, these Alaska Native villages are one superstorm from being washed away, displacing hundreds of Americans and potentially costing lives. The members of these communities could soon become refugees in their own country.

Alaska's elected officials know climate change presents a real risk to these communities. Gov. Bill Walker (I) and Sen. Lisa Murkowski (R) have been sounding the alarm and scrambling for resources to help these villages. But to stave off a life-threatening situation, Alaska needs the help of a fully engaged federal government. Washington cannot turn its back.

While I have given small amounts to Democratic candidates in the past, I have no problem whatsoever working for a Republican administration. I believe that every president, regardless of party, has the right and responsibility to implement his policies. But that is not what is happening here. Putting citizens in harm's way isn't the president's right. Silencing civil servants, stifling science, squandering taxpayer money and spurning communities in the face of imminent danger have never made America great.

Now that I have filed with the Office of Special Counsel, it is my hope that it will do a thorough investigation into the Interior Department's actions. Our country protects those who seek to inform others about dangers to American lives. The threat to these Alaska Native communities is not theoretical. This is not a policy debate. Retaliation against me for those disclosures is unlawful.

Let's be honest: The Trump administration didn't think my years of science and policy experience were better suited to accounts receivable. It sidelined me in the hope that I would be quiet or quit. Born and raised in Maine, I was taught to work hard and speak truth to power.

Trump and Zinke might kick me out of my office, but they can't keep me from speaking out. They might refuse to respond to the reality of climate change, but their abuse of power cannot go unanswered.

This OpEd can be found at: https://www.washingtonpost.com/opinions/im-a-scientist-the-trump-administration-reassigned-me-for-speaking-up-about-climate-change/2017/07/19/389b8dce-6b12-11e7-9c15-177740635e83_story.html?utm_term=.3c2e0a7b2342.

[LIST OF DOCUMENTS SUBMITTED FOR THE RECORD RETAINED IN THE
COMMITTEE'S OFFICIAL FILES]

Submissions for the Record by Dr. Rosenberg

- CDC Science Under Trump Fact Sheet from the Union of Concerned Scientists dated August 2018
- Energy Agencies Science Under Trump Fact Sheet from the Union of Concerned Scientists dated August 2018
- EPA Science Under Trump Fact Sheet from the Union of Concerned Scientists dated August 2018
- FDA Science Under Trump Fact Sheet from the Union of Concerned Scientists dated August 2018
- FWS Science Under Trump Fact Sheet from the Union of Concerned Scientists dated August 2018
- NOAA Science Under Trump Fact Sheet from the Union of Concerned Scientists dated August 2018
- NPS Science Under Trump Fact Sheet from the Union of Concerned Scientists dated August 2018
- USDA Science Under Trump Fact Sheet from the Union of Concerned Scientists dated August 2018
- USGS Science Under Trump Fact Sheet from the Union of Concerned Scientists dated August 2018.
- Letter from the Union of Concerned Scientists to EPA dated August 16, 2018

