

The 2016 election brought a new President and a new Congress to Washington, D.C. in January 2017. Throughout the year, geoscience issues have been the focus of significant action by the President and members of Congress. The American Geosciences Institute (AGI) is pleased to bring you this summary of the major developments in federal geoscience policy during 2017.

The American Geosciences Institute is a nonprofit federation of 52 scientific and professional associations that represents more than 260,000 geoscientists. Founded in 1948, AGI provides information services to geoscientists, serves as a voice of shared interests in the profession, plays a major role in strengthening geoscience education, and strives to increase public awareness of the vital role the geosciences play in society's use of resources, resiliency to natural hazards, and interaction with the environment.

INTRODUCTION

The Republican Party gained control of both the United States Congress and the Presidency for the first time in a decade with the inauguration of President Donald J. Trump on January 20, 2017. Having held no prior political office, federal policies and priorities under President Trump were anticipated from his campaign platforms: America first, Affordable Care Act repeal, tax reform, energy independence, regulatory reform, and infrastructure overhaul. While the initial details of these platforms were scant, it appeared that many sectors of the geosciences would see significant changes in federal policies under the new administration.

During the first year of the 115th Congress, federal lawmakers aligned their own policy positions and actions with many of the President's priorities by advancing legislation focused on environmental regulation and energy development, but diverged from several other administration recommendations, particularly by maintaining funding for non-defense discretionary domestic spending. Now a year into the Trump administration and 115th Congress, the current direction of national policies is more clearly defined after a number of legislative and executive accomplishments.

CONGRESS

THE SHAPE OF THE CHAMBERS

On January 3, 2017, the 115th Congress was sworn in with the Republican Party maintaining a majority in the House of Representatives (246-187) and the Senate (52-46-2). Representative Paul Ryan (R-WI-1) was reelected as Speaker of the House, and Representative Nancy Pelosi (D-CA-12) remained Minority Leader. Senator Mitch McConnell (R-KY)



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maintained his position as Majority Leader of the Senate, while Senator Chuck Schumer (D-NY) replaced retiring Senator Harry Reid (D-NV) as Minority Leader. Vice President Joe Biden continued to serve as President of the Senate until Mike Pence became Vice President on Inauguration Day, January 20, 2017.

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SCIENCE LEGISLATION

Legislation enacted: The year began with enacting key legislation setting national science priorities. On January 6, just before the end of his term, President Barack Obama signed the [American Innovation and Competitiveness Act \(S.3084\)](#) into law. This legislation builds upon the America COMPETES Act and creates a framework for future research at the National Science Foundation (NSF), the White House Office of Science and Technology Policy (OSTP), the National Institute of Standards and Technology (NIST), and various other federal research agencies and STEM (science, technology, engineering, and mathematics) programs. At a time when women compose less than 25% of America's STEM workforce, President Trump signed [two bipartisan bills](#) — Inspiring the Next Space Pioneers, Innovators, Researchers, and Explorers (INSPIRE) Women Act ([H.R.321](#)) and Promoting Women in Entrepreneurship Act ([H.R.255](#)) — on February 28 that aim to increase the number of women in the science workforce. On March 21, the [National Aeronautics and Space Administration \(NASA\) Transition Authorization Act \(S.442\)](#) was signed into law to sustain and build upon NASA's mission to advance science and space exploration, though the act does not specifically address the agency's earth science activities. The [Weather Research and Forecasting Innovation Act of 2017 \(H.R.353\)](#), which prioritizes U.S. leadership in weather and tsunami forecasting and research, was signed into law on April 18, marking this as the first major weather legislation to become public law in decades.

Legislation under consideration: On December 18, the House considered three bipartisan pieces of legislation that support careers and education in STEM. The STEM Research and Education Effectiveness and Transparency Act ([H.R.4375](#)) passed the House that day, and the Supporting Veterans in STEM Careers Act ([H.R.4323](#)) and the Women in Aerospace Education Act ([H.R.4254](#)) passed the House the following day.

REGULATION LEGISLATION

Legislation enacted: In the spring, Congress used the provisions of the [Congressional Review Act \(CRA\)](#) to undo several rules that were finalized by President Obama between June 2016 and the end of his term. The House and Senate both passed joint resolutions to disapprove of and nullify three geoscience-related rules: the [Stream Protection Rule \(H.J.Res.38\)](#), a [rule](#) requiring the disclosure of government payments by resource extraction issuers ([H.J.Res.41](#)), and a [rule](#) for resource management planning on public lands ([H.J.Res.44](#)). These resolutions were signed into law, thus overturning the respective rules and ensuring that substantially similar rules cannot be promulgated in the future. However, the Senate failed to pass a resolution that would disapprove of a Bureau of Land Management (BLM) [rule](#) that regulates natural gas leaks ([H.J.Res.36](#)).

Legislation under consideration: The House passed several pieces of legislation seeking to drastically reform the way that federal agencies create new regulations: the Regulatory Accountability Act of 2017 ([H.R.5](#)), the Regulations from the Executive in Need of Scrutiny Act of 2017 ([H.R.26](#)), the OIRA Insight, Reform, the Accountability Act ([H.R.1009](#)), and the Regulatory Integrity Act of 2017 ([H.R.1004](#)). The Senate has yet to act on these or other similar pieces of legislation.

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ENERGY AND MINERALS LEGISLATION

Legislation enacted: Tax reform — Congress' biggest achievement for 2017, signed into law on December 22 — included Senator Lisa Murkowski's (R-AK) [provision](#) directing the Secretary of the Interior to implement an oil and gas leasing program for the coastal plain (1002 Area) of the Arctic National Wildlife Refuge (ANWR) in Alaska.

Legislation under consideration: On June 20, Senator Murkowski introduced the Energy and Natural Resources Act of 2017 ([S.1460](#)). This bipartisan energy bill, with 11 titles covering issues across the geosciences, largely resembles another bill ([S.2012](#)) that passed both chambers during the last Congress, but died in conference. S.1460 was placed directly on the Senate calendar, bypassing committee consideration, but saw no further action in 2017. In November, the House Committee on Natural Resources passed the bipartisan SECURE American Energy Act ([H.R.4239](#)), sponsored by House Majority Whip Steve Scalise (R-LA-1), to overhaul federal lands energy policy by expanding onshore and offshore exploration, development, and production of oil, gas and wind resources. On September 6, the House Natural Resources Committee held a legislative hearing to review two bills, [H.R.2907](#) and [H.R.3565](#), which would reform the existing federal regulatory framework for onshore oil and gas leasing, and the State Mineral Revenue Protection Act ([H.R.2661](#)), which would allow states to manage the collection of mineral revenues produced within their borders. Additionally, Democrats and Republicans in both chambers introduced legislation, including [H.R.2937](#), [S.1833](#), [H.R.1731](#), [S.728](#), and [S.738](#), and held hearings concerning abandoned mine lands (AML). The bills focus on reforming or introducing programs that fund AML remediation efforts and on addressing the availability of scientific and technical expertise for these efforts.

MAPPING AND GEO-HAZARDS LEGISLATION

Legislation enacted: Provisions of the Tsunami Warning, Education, and Research Act ([H.R.312](#)) were passed as part of the Weather Research and Forecasting Innovation Act of 2017.

Legislation under consideration: Relevant Senate committees passed several hazards-related bills which now await a vote on the Senate floor, including [S.346](#) to establish a National Volcano Early Warning and Monitoring System, [S.1768](#) to reauthorize the National Earthquake Hazards Reduction Program (NEHRP), and [S.2200](#) to reauthorize the National Integrated Drought Information System (NIDIS) and subseasonal and seasonal forecasts from NOAA. In December, the House Natural Resources Committee passed the National Volcano Early Warning and Monitoring System Act ([H.R.4475](#)), the National Landslide Preparedness Act ([H.R.1675](#)), and the National Geologic Mapping Act Reauthorization Act ([H.R.4033](#)). H.R.1675, along with its Senate counterpart, S.698, would create both a national program to identify and understand risks and reduce losses from landslide hazards and a national 3D Elevation Program (3DEP). H.R.4033 and S.1787 would reauthorize the National Cooperative Geologic Mapping Program through 2023. To further promote national mapping initiatives, the Senate passed the Digital Coast Act ([S.110](#)), which would require the National Oceanic and Atmospheric Administration (NOAA) to establish a program to provide mapping data, tools, and training for communities to use in managing their coastal resources, and both chambers introduced bipartisan bills ([S.2128](#) and [H.R.4395](#)) on GIS Day to fill longstanding governance gaps for geospatial information systems (GIS).

FLOOD AND FIRE LEGISLATION

Legislation enacted: Towards the end of the year, the congressional calendar was full of committee hearings and legislative negotiations to address the record-breaking hurricanes and fires that had recently devastated many parts of the country. Congress approved several disaster aid packages, including a bill providing for \$15.25 billion in supplemental appropriations on September 8 ([H.R.601](#)) and a \$36.5 billion [disaster aid package](#) ([H.R.2266](#)) on October 26.

Legislation under consideration: Lawmakers from the impacted areas were seeking billions more in relief before the end of the year, but Congress [stopped short](#) of sending an \$81 billion relief package ([H.R.4667](#)) to the President.

While dozens of bills were introduced relating to floods and wildfires, the House passed the Resilient Federal Forests Act (H.R.2936) to expedite environmental reviews and improve forest management activities on National Forest System lands and public lands, and both chambers passed H.R.4661 to reauthorize the U.S. Fire Administration and grant programs relating to firefighting equipment and training. Following months of debate on the floor continuing late

into November 14, the House passed the 21st Century Flood Reform Act (H.R.2874), which would reauthorize the National Flood Insurance Program (NFIP) for five more years, while also making several operational changes. Reauthorization of the NFIP, which was \$25 billion in debt before the 2017 hurricane season and received \$16 billion in debt forgiveness with passage of H.R.2266, is now facing a deadline of January 19, 2018.

BUDGET

Upon taking office, members of the 115th Congress and President Trump were charged with resolving government funding for two fiscal years (FY) simultaneously.

FY 2017 budget enacted: President Obama had submitted his FY 2017 budget request in February 2016, requesting increases for almost all geoscience programs. However, Congress did not agree on a budget by the start of the 2017 fiscal year on October 1, 2016, and instead passed a series of continuing resolutions (CR) that extended funding for federal government operations at FY 2016 levels until May 5, 2017. On March 24, 2017, President Trump sent a memorandum to Congress suggesting \$18 billion in domestic spending cuts for FY 2017 to offset increases in security and defense spending. Congress largely rejected President Trump's FY 2017 recommendation when they passed the FY 2017 budget (H.R.244) on May 4. Overall, most science agencies received relatively flat funding in the FY 2017 omnibus bill, although multiple programs and mission areas within the science agencies received small cuts. For example, the U.S. Geological Survey (USGS) Energy, Minerals, and Environmental Health Mission Area received a 0.2% decrease and the NASA Education Program received a 13% decrease from the FY 2016 enacted levels. Some programs, including 3DEP and the earthquake and volcano hazards programs, received increased funding.

FY 2018 budget under consideration: Typically, the president's budget request is released in early February and marks the beginning of the appropriations process. In 2017, however,



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President Trump released a "skinny budget" for FY 2018 on March 16 generally outlining his funding priorities, which included increases to defense spending by \$54 billion at the expense of domestic spending. On May 23, President Trump released his complete FY 2018 budget request with proposed cuts to federal science agencies in the range of 3 to 31% below FY 2017 levels. The President requested an overall budget of \$11.6 billion for the Department of the Interior (-12%), prioritizing the National Parks Service's deferred maintenance projects and reducing USGS funding to \$922.2 million (-15%). The Environmental Protection Agency (EPA) request, which would result in a 31% decrease to \$5.7 billion, included elimination of over 50 programs. The President requested \$28 billion for the Department of Energy (-9%), including \$120 million to restart the Yucca Mountain nuclear waste repository program and a reduction of \$900 million for the Office of Science. The \$7.8 billion request for the Department of Commerce (-16%) included cuts to several research programs funded by NOAA, and the \$6.6 billion request for NSF (-11%) included a proposed cut of 10.4% for Earth Sciences. The President requested \$19.1 billion for NASA (-3%), preserving most of the agency's programs but completely eliminating the Office of Education.

Both the House and Senate declared that many, but not all, of these cuts would be dead on arrival. By September 14, the House passed all 12 appropriations bills ([H.R.3219](#) and [H.R. 3354](#)), while the Senate finished releasing their appropriations bills on November 21. Extending the time to pass and reconcile spending legislation for FY 2018, Congress passed continuing resolutions on September 8 ([H.R. 601](#)), December 8 ([H.J.Res.123](#)), and December 21 ([H.R.1370](#)) to continue funding the federal government and progressively push back the original September 30 deadline to January 19, 2018. While these continuing resolutions enable federal government operations to continue at funding levels consistent with the previous fiscal year, the procedure results in uncertainty for agency spending plans and does not account for inflation or allow for new initiatives.

The FY 2018 House and Senate [appropriation bills](#) outline [cuts](#) to many science-related federal agencies, although funding for these agencies is generally higher in the Senate than the House spending bills, with the exception of NASA. Rejecting over \$4 billion in cuts requested by the President, the House Interior, Environment, and Related Agencies Appropriations

Follow budgetary requests and congressional appropriations on AGI's Federal Geoscience Funding page.

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Bill decreases overall funding by \$824 million, while the Senate increases funding by \$318 million over FY 2017 enacted levels. Report language for both bills highlighted strengthening natural hazards and geological mapping initiatives at the USGS. Similarly, both the House and Senate rejected deep cuts to the Department of Energy (\$29.8 billion and \$31.4 billion, respectively) and would preserve the Office of Science. While the House Commerce, Justice, Science, and Related Agencies Appropriations Bill increases NASA funding by \$218 million, the bill reduces the overall funding for NOAA, NIST, and NSF by \$870 million compared to the Senate's collective reduction of \$256 million across all four agencies. Both bills sustain the NOAA and NASA Offices of Education and the National Sea Grant College Program.

ADMINISTRATION

THE BEGINNING

President Trump's campaign promises relating to the geosciences starkly contrasted with the policies and priorities of the Obama administration. Emphasizing his "America first" agenda, President Trump campaigned on the idea of American energy independence by expanding domestic oil and gas production, permitting the construction of controversial pipelines, exiting the Paris climate accord, and overturning the Clean Power Plan and other regulations affecting the coal industry. He sought to reduce federal regulations by removing two regulations for every new rulemaking, and to expedite environmental reviews for \$1 trillion of infrastructure projects. He also promised to reduce the federal government by eliminating domestic programs and shrinking the federal workforce.



Credit: AGI/Christopher Keane

In reaction to the abrupt shift in priorities and potential threats to federal science agency resources, which became increasingly evident from the President's early-term executive orders and memoranda, members of the scientific community developed an organic movement to [March for Science](#) on Earth Day, April 22, 2017. Ultimately, an estimated 1 million global participants marched in Washington, D.C., and more than 600 other cities to show their support for the role of science in society, empower public engagement related to science, foster a diverse and inclusive scientific community, and build a global community of science advocates.

NOMINATIONS

Before President Trump assumed office, he announced his cabinet nominations and Congress began holding confirmation hearings. Despite strong resistance from Democratic senators, many of President Trump's cabinet nominees advanced to the Senate floor and were confirmed mostly on near party-line votes. Former ExxonMobil CEO Rex Tillerson was confirmed on February 1 as Secretary of State. Then, on February 16, the Senate narrowly confirmed Mick Mulvaney, former Representative from South Carolina and co-founder of the House Freedom Caucus, as Director of the Office of Management and Budget, which oversees the budget, regulations, and administration policies.

Scott Pruitt, former Attorney General of Oklahoma, was confirmed as EPA Administrator on February 17 following committee meeting boycotts by Democratic members of the Senate Environment and Public Works Committee. Billionaire Wilbur Ross divested much of his fortune before his confirmation on February 27 as the Secretary of Commerce, a position with responsibility for overseeing NOAA and NIST. On March 1, the Senate confirmed former Navy SEAL and Montana congressman Ryan Zinke as [Secretary of the Interior](#) to oversee the management of one-fifth of the surface land in the U.S. and many natural resources. Former Governor of Texas and past presidential candidate Rick Perry was confirmed on March 2 as [Secretary of Energy](#). On April 24, former Governor of Georgia, Sonny Purdue, received bipartisan votes to serve as Secretary of Agriculture.

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<https://www.americangeosciences.org/policy/federal-nominations>

After filling his cabinet in the spring, President Trump did not resume nominations until late [summer](#) and [fall](#) leaving many high-level positions in geoscience-related agencies vacant for the year. Entering into 2018, the Senate calendar includes confirmation votes for [NASA Administrator](#), [NOAA Administrator](#), Assistant Secretary of the Army (Army Corps), and [head](#) of the White House Council on Environmental Quality. President Trump has yet to nominate either a Director for the White House Office of Science and Technology Policy or a USGS Director.

ENERGY AND MINERAL POLICIES

In his first days of office, President Trump signed multiple [executive orders and memoranda](#) to begin implementation of his America First Energy Plan. Accordingly, the administration approved the Keystone XL and Dakota Access pipelines, and [revoked](#) a moratorium on new coal leases on public lands in the following months. In late December, BLM repealed the Obama administration's 2015 rule setting standards for hydraulic fracturing on federal land. In 2017, BLM also offered more tracts than ever before in the [annual lease](#) sale for the National Petroleum Reserve in Alaska (NPR-A), but received bids on less than 1% of the land offered for lease. This record lease sale came just weeks before a [new assessment](#) was released by the USGS which estimated that the NPR-A contains 8.7 billion barrels of undiscovered, technically recoverable oil and 25 trillion cubic feet of undiscovered, technically recoverable natural gas. President Trump also directed the Secretary of the Interior to revise the proposed oil and gas lease sales in each of the Outer Continental Shelf (OCS) Planning Areas, as part of his executive order [Implementing an America-First Offshore Energy Strategy](#). Secretary Zinke has since

reconsidered seismic survey permits for the Atlantic coast and proposed revisions to the existing offshore production safety systems regulations.

In December, following the release of a [USGS report](#) on 23 mineral commodities that are critical for the U.S. economy and security, President Trump expanded his America first strategy by signing an [executive order](#) to reduce America's dependence on foreign sources of critical minerals. The order directs the Departments of the Interior, Agriculture, Defense, and Energy to submit a report including a strategy to accomplish this goal, an assessment of progress toward developing recycling technologies and alternatives to critical minerals, and a plan to improve the topographic, geologic, and geophysical mapping of the U.S.

NATIONAL MONUMENTS

Following an [executive order](#) issued by the President on April 26, the Department of the Interior conducted a review of 27 national monuments, including five marine national monuments, created or expanded since 1996 under the [Antiquities Act](#). The administration claimed previous presidential actions lacked sufficient stakeholder consultation or warning and restrict use and access to federal lands and resources. On August 24, Secretary Zinke sent a draft [report](#) to the President that included his findings



Jacob Hamblin Arch in Coyote Gulch, Grand Staircase-Escalante National Monument, Utah. Credit: ©Shutterstock.com/kojihirano

and recommendations on the national monuments under review. Consistent with the Secretary's recommendations, President Trump signed two proclamations on December 4 reducing the [Bears Ears National Monument](#) and the [Grand Staircase-Escalante National Monument](#) in Utah by about 85% and 47%, respectively. The executive proclamations immediately spurred a number of non-governmental entities to sue over the reductions.

ENVIRONMENTAL POLICIES AND RULE MAKING

President Trump established strict guidelines for rulemaking in 2017 with an [executive order](#) issued in January requiring elimination of two existing regulations for every new one that is created and no increases to the total cost as a result of regulatory changes. His regulatory guidance was especially focused on energy development, manufacturing, agriculture, and [infrastructure](#) projects.

On February 28, President Trump issued an [executive order](#) directing the EPA and the Army Corps of Engineers to review and rescind or revise the Waters of the United States (WOTUS) rule issued in 2015, which clarifies the waterways under the jurisdiction of federal regulators under the Clean Water Act. Subsequently, the agencies have proposed a rule to rescind WOTUS and an amendment to delay the effective date. After an [executive order](#) in March ordered a review of all actions that could hinder the development and exploitation of energy resources, President Trump formally announced U.S. withdrawal from the Paris Climate Accord on June 1. EPA Administrator Scott Pruitt issued a Notice of Proposed Rulemaking on October 10 to [repeal](#) the Clean Power Plan, a key part of the Obama administration's climate mitigation efforts. On December 14, President Trump cut a strip of red tape at the White House celebrating his administration's progress in undoing regulations, while highlighting agencies have issued 67 deregulatory actions and imposed only three new regulations.

AGI POLICY ACTIVITIES

AGI's Geoscience Policy and Critical Issues programs support well-informed public policy and decision making by providing information and facilitating dialogue between the geoscience community and decision makers at all levels.

AGI works closely with its member societies to ensure that the geosciences are strongly represented in the federal policy-making process. AGI's Geoscience Policy program tracks federal policies and publishes a [Monthly Review](#) highlighting key legislation and executive actions. In early 2017, AGI with eight other societies published *Geoscience Policy Recommendations for the New Administration and 115th Congress*. Throughout the year, AGI, often in collaboration with other societies, submitted [testimony](#) and [letters](#) to Congress and the administration regarding geoscience funding, legislation, federal actions, and the importance of the geosciences to societal issues.

AGI encourages geoscientists to engage in the federal policy process as individuals or through their scientific or professional organizations, and invites participation in the next [Geosciences Congressional Visits Day](#) in Washington, D.C. on September 12–13, 2018.

We hope that you will find this first edition of the AGI Geoscience Policy Annual Review useful and informative, and we appreciate any feedback to help us improve future Annual Reviews. Please send your comments to govt@americangeosciences.org.

Mark your calendar for Geosciences CVD 2018 — September 12–13.

For more information on participating see our [Geo-CVD](#) page.

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