

Monthly Review: July 2011

The American Geological Institute's monthly review of geosciences and policy goes out to the leadership of AGI's member societies, members of the AGI Government Affairs Advisory Committee, and other interested geoscientists as part of a continuing effort to improve communications between GAP and the geoscience community. The current monthly review and archived monthly reviews are all available online. Subscribe to receive the Government Affairs Monthly Review by email.

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1. Call for Geoscientists to Attend GEO-CVD in September

The American Geological Institute (AGI), in collaboration with many other geoscience societies, invites geoscientists to come to Washington, DC for the annual Geosciences Congressional Visits Day (GEO-CVD) on September 20-21, 2011. Decision makers need to hear from geoscientists. Become a citizen geoscientist and join many of your colleagues for this two-day event uniting geoscience researchers, professionals, students, educators, engineers, and executives in Washington, DC to raise visibility and support for the geosciences.

A constructive visit from citizen geoscientists about the importance and value of geoscience (and geoscience-related engineering) research and education is the most effective way to inform and impact federal science policy.

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2. White House Creates Interagency Alaska Oil and Gas Working Group

President Obama released an executive order on July 15, 2011 outlining the organization of an interagency working group to address oil and gas development in Alaska. The group will be chaired by the Deputy Secretary of the Interior, with representatives from the Departments of Defense, Commerce, Agriculture, Energy, Homeland Security and other government agencies. The move is in response to growing criticism of the federal permitting process for oil and gas development in Alaska. Oil industry representatives have complained that the process takes too long and that there are too many agencies with jurisdiction.

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3. 30 Million Barrels Released from Strategic Petroleum Reserve

At the end of June, 2011 the Obama administration released 30 million of 727 million barrels of crude oil from the Strategic Petroleum Reserve (SPR). The release was in collaboration with the International Energy Agency (IEA) to reduce energy prices over the short-term as oil consumption increases during the summer months. As stated on the Department of Energy (DOE) web site, "the SPR provides the President with a powerful response option should a disruption in commercial oil supplies threaten the U.S. economy." The SPR is the largest emergency reserve held by any government. In the past, supplies from SPR have been used in the aftermath of natural hazards such as Hurricane Katrina. This most recent release of crude has received little support from congressional Republicans. Senator Lisa Murkowski (R-AK), ranking member of the Energy and Natural Resources Committee, was suspicious about the effectiveness of the administration's decision. However, industry interest in purchasing the crude oil was high as indicated by 90 offers sent to DOE on June 22, 2011. Discussions on a possible carbon tax and analysis of domestic oil supply have followed the release. Critics of the recent release suggest a carbon tax would provide a more long term and effective method of curbing energy prices.

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4. Update on Appropriations for FY 2012

After an intense month of debate, Congress has passed a debt limit measure, the Budget Control Act of 2011, within hours of a Treasury Department deadline of August 2 and President Obama has signed the legislation into law. The measure would raise the debt ceiling of \$14.3 trillion by as much as \$2.4 trillion in two steps over a two year period. In the first step, the Treasury would have \$400 billion as soon as President Obama certifies the government is within \$100 billion of the limit, with \$500 billion later unless two thirds of Congress objects. The second step would raise the ceiling by \$1.2 trillion subject to congressional approval. If approval is not granted then President Obama can raise the ceiling by a veto of the congressional disapproval.

The agreement calls for \$900 billion in cuts to security (\$350 billion from Defense) and non-security discretionary spending over a decade plus savings of \$1.5 trillion determined by a special committee of six Republicans and six Democrats from the House and Senate. The committee must present its plan by November 23 and Congress will vote on this plan by December 23, 2011. It remains unclear whether or how the committee might consider taxes in their planning. If the committee does not come up with an agreeable plan, then automatic cuts would be divided over security, non-security and Medicare spending. Social Security and Medicaid would not be considered in this measure. The current compromise includes miscellaneous language about higher education supplements: Pell grants would receive \$20 billion over two years while incentives for graduate students loans would be eliminated.

The debate about the debt ceiling stalled consideration of the Interior, Environment and Related Agencies Appropriations for fiscal year (FY) 2012 (H.R. 2584) and Commerce, Justice and Science (CJS) Appropriations for FY 2012 (H.R. 2596) on the House floor. Floor debate of many amendments to the Interior appropriations began on July 21 and continued until July 28, while floor debate on CJS appropriations has not begun. There are intense disagreements over policy riders and funding levels for the Environmental Protection Agency (EPA) as well as environmental and climate change related programs in other agencies. Those disagreements and an interest to adjourn the House for the August recess led House leadership to table further discussion of the Interior appropriations and other measures.

Interior Appropriations Subcommittee Chairman Mike Simpson (R-ID) calls EPA the “scariest agency in the federal government,” while Ranking Member Jim Moran (D-VA) predicts the debt ceiling agreement will empower Republicans to make more cuts. Simpson and other policymakers expect a continuing resolution in September to keep the federal government running at FY 2011 levels until Congress can work out an omnibus bill for most discretionary spending over October and November. Simpson predicts Interior and EPA will have leaner budgets in FY 2012, but the allocation for his subcommittee may not see large cuts because Appropriations Committee Chairman Hal Rogers (R-KY) supports current allocations for this subcommittee. An AGI overview of FY 2012 Geoscience-related appropriations with tables and summaries of House actions compared to the President’s request and FY2011 enacted levels is available from the Government Affairs website.

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5. Janice Hahn Defeats Craig Huey for California Congressional Seat

On July 12, 2011 Los Angeles City Councilwoman Janice Hahn (D) defeated Craig Huey (R), 54.6 percent to 45.4 percent, for the California 36 district congressional seat left vacant by Jane Harman (D). This brings the Republican majority in the House of Representative to 240, with 192 Democrats and three vacant positions. An election to replace Anthony Weiner (D-NY) who resigned in late June, will take place on September 13, 2011 between David Weprin (D) and Bob Turner (R). Kate Marshall (D) and Mark Amodei (R) are running for Nevada’s vacant seat, left open when former Representative Dean Heller (R-NV) was appointed to replace former Senator John Ensign (R-NV). Representative David Wu (D-OR) intends to resign in August and a special election will fill this vacancy in the future. The Senate remains at 51 Democrats, 47 Republicans and 2 Independents.

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6. Nuclear and Clean Energy Bills Pass Senate Committee

On July 14, the Senate Committee on Energy and Natural Resources reported 23 bills that covered energy, water, and public land issues. Of note in this first package of bills were two nuclear energy demonstration bills and four bills to reduce oil consumption and increase domestic clean energy production. The Nuclear Power 2021 Act (S. 512) would require the Department of Energy (DOE) to demonstrate two small modular reactor designs and the Nuclear Energy Research Initiative Improvement Act of 2011 (S. 1067) would require the DOE to support research to reduce the manufacturing and construction costs associated with nuclear reactors. To reduce oil consumption and increase domestic clean energy development and deployment, the committee passed the Advanced Vehicle Technology Act of 2011 (S. 734), the Energy Savings and Industrial Competitiveness Act of 2011 (S. 1000), the Alternative Fuel Vehicles Competitiveness and Energy Security Act of 2011 (S. 1001), and a bill to promote the domestic development and deployment of clean energy technologies. This last bill would create a Clean Energy Deployment Administration (CEDA) which was first discussed as part of the 21st Century Energy Technology Deployment Act (S. 949) which was introduced in 2009.

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7. Oil and Gas Facilitation Act Passes Senate Energy Committee

In its second mark-up of July, the Senate Committee on Energy and Natural Resources passed the Oil and Gas Facilitation Act of 2011 (S. 916). The measure would ease the restrictions on domestic oil and gas development, provide funds to improve onshore oil and gas permit processing, facilitate the coproduction of oil and gas and geothermal energy, charter a comprehensive inventory of natural resources in the outer continental shelf, create an outer continental shelf lease and permitting office in Alaska and promote the development of an Alaska natural gas pipeline.

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8. House Expedites Approval of Keystone XL Pipeline

On July 27, 2011 the House of Representatives voted 279-147 to pass the North American-Made Energy Security Act (H.R. 1938) that would expedite the consideration process for the \$7 billion U.S.-Canada Keystone XL oil pipeline. Under the current timeline the State Department will submit a final ruling on the pipeline by the end of 2011. Because of this, the Obama administration and House Democrats called the bill unnecessary. Environmental groups strongly oppose the pipeline while the oil industry and other business groups cite it as a critical action to improve U.S. economic interests.

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9. Chairman Hastings Circulates MMS Reorganization Draft

House Natural Resources Committee Chairman Doc Hastings (D-WA) is circulating a discussion draft of legislation to reorganize the former Minerals Management Service (MMS) into three different agencies. The bill would essentially redefine the Obama Administration's reorganization plans for MMS which are currently underway. Hastings' bill would separate MMS into the Bureau of Ocean Energy, responsible for planning, leasing, and environmental studies and the Ocean Energy Safety Service, responsible for permitting, safety, and inspection. These two agencies would be overseen by a new Assistant Secretary of Ocean Energy and Safety. The existing Assistant Secretary for Policy, Management, and Budget would oversee the new Office of Natural Resources Revenue (ONRR) which would be responsible for collecting all royalties and revenues for onshore and offshore energy production. The two Assistant Secretaries would report to a new Under Secretary for Energy, Lands and Minerals which would oversee all offshore and onshore energy production. The Obama Administration's reorganization plans split the current Bureau of Ocean Energy Management, Regulation, and Enforcement (BOEMRE) into the Bureau of Ocean Energy Management and the Bureau of Safety and Environmental Enforcement. Hastings' proposal for an Office of Natural Resources Revenue shares similar responsibilities and a name to the agency already implemented by the Obama Administration.

Included in Hastings' draft is the establishment of a National Offshore Energy Health and Safety Academy to train government inspectors and a stipulation that all inspectors have at least three years experience in the oil and gas field and a relevant academic background. The bill would create an Outer Continental Shelf Energy Safety Advisory Board to provide the Secretary of the Interior with technical advice on safe offshore energy exploration, development, and production.

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10. Bill to Delay EPA's Boiler Emissions Rule Introduced

Senator Susan Collins (R-ME) and five co-sponsors introduced a bipartisan bill (S.1392) on July 20, 2011 that would delay and amend the pending U.S. Environmental Protection Agency (EPA) Boiler Maximum Achievable Control Technology (MACT) rules. The Boiler MACT rules, issued in February 2011, restrict mercury and other toxic emissions from industrial boilers and incinerators. Collins' bill would extend compliance deadlines from three years to at least five years, give the EPA 15 months from the bill's enactment to finalize the regulations, clarify that renewable and carbon neutral materials are considered fuel and not solid waste, and direct the EPA to ensure that the new regulations are achievable with current technology.

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11. Mining and Renewable Energy Bills Approved by House Committee

The House Natural Resources Committee approved the Southeast Arizona Land Exchange and Conservation Act of 2011 (H.R. 1904) during a mark-up on July 14, 2011. Under this legislation, 2,000 acres of federal forest land would be traded for 5,000 acres of land owned by Resolution Copper Co. The aim of the land exchange is to promote job opportunities in Arizona, facilitate domestic copper production, and increase government revenue while still protecting the surrounding wildlife. The committee approved six other bills. National Petroleum Reserve Alaska Access Act (H.R. 2150) expedites leasing of oil and gas in the National Petroleum Reserve in Alaska; Cutting Federal Red Tape to Facilitate Renewable Energy Act (H.R. 2170) streamlines the review process for renewable energy projects; Exploring for Geothermal Energy on Federal Lands Act (H.R. 2171) strives for timely geothermal energy exploration; Utilizing America's Federal Lands for Wind Energy Act (H.R. 2172) promotes wind energy production on Federal Lands; Advancing Offshore Wind Production Act (H.R. 2173) supports offshore wind energy sources; and Southeast Alaska Native Land Entitlement Finalization and Jobs Protection Act (H.R. 1408) addresses land entitlement in Southeast Alaska.

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12. Critical Minerals Bill Calls for Domestic Production

The House Natural Resources Committee held a mark-up on July 20, 2011. The committee unanimously approved the National Strategic and Critical Minerals Policy Act of 2011 (H.R. 2011), which calls for a national assessment of the United States' capability to meet the growing demand for critical minerals. The legislation, part of the House Republican's American Energy Initiative, is sponsored by Representative Doug Lamborn (R-CO) and cosponsored by 35 others. Lamborn and Chairman Doc Hastings (R-WA) see the legislation as a way to ensure global competitiveness and increase domestic mineral resources production. During the mark-up, the committee approved ten other bills primarily regarding land conveyance, tribal matters, and mineral rights on Montana tribal land.

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13. Uranium Bill Passes House Energy and Commerce Committee

On July 27, 2011 the House Committee on Energy and Commerce Subcommittee on Energy and Power approved by voice vote the Energy and Revenue Enrichment Act of 2011 (H.R. 2054). The legislation, introduced by Representative Ed Whitfield (R-KY), must now be voted on by the full committee. This bill was passed without the support of Representative Bobby Rush (D-IL), subcommittee Ranking Member, and Representative Henry Waxman (D-CA), Ranking Member of the full committee. Under this legislation, the Department of Energy (DOE) would conduct a two year program to re-enrich and consequently sell, the depleted uranium "tails" at government owned plants. Uranium "tails" refer to the 700,000 metric tons of depleted uranium that DOE stores at Portsmouth, Ohio and Paducah, Kentucky. Critics argue the bill creates a monopoly since it does not allow for other domestic facilities to re-enrich uranium before the two year program is over.

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14. Clean Estuaries Act Passes Senate Environment and Public Works Committee

On July 13, 2011, Senator Sheldon Whitehouse's (D-RI) bill, Clean Estuaries Act of 2011 (S. 1313) was approved by the Senate Environment and Public Works Committee with a bipartisan vote. This legislation amends the Federal Water Pollution Control Act and re-authorizes the National Estuary Program (NEP). NEP, administered by the Environment Protection Agency, protects and restores estuarine habitats from pollution and overdevelopment. The bill revises voluntary estuary restoration efforts and expands conservation and management plan requirements prepared by each estuary program. In addition, the legislation requires regular evaluations to determine if improving water quality and habitat goals are met.

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15. Algal Blooms and Hypoxia Research Passes House Science Committee

The House Committee on Science, Space and Technology Subcommittee on Energy and Environment met on July 14, 2011 and unanimously approved the Harmful Algal Blooms and Hypoxia Research and Control Amendments Act of 2011 (H.R. 2484). The legislation, sponsored by Subcommittee Chairman Andy Harris (R-MD), ensures funding for research on harmful algal blooms (HABs) and hypoxia or dead zones. HABs damage the surrounding marine or freshwater environment due to an overabundance of algae that produce toxins. Oxygen depleted zones or hypoxia zones, are caused from the overproduction of algal cells, which blocks sunlight and consume the available oxygen. The causes and effects vary between ecosystems and further research will increase understanding and improve mitigation techniques. The measure reduces the funding levels for research below previous authorization levels; using instead the amount of funding used in fiscal year 2010.

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16. National Flood Insurance Program Reauthorized in House

On July 12, 2011 the House of Representatives passed, on a 406-22 vote, the Flood Insurance Reform Act of 2011 (H.R. 1309). This legislation extends the National Flood Insurance Program until September 2016. Currently, the program is almost \$18 billion in debt and was set to expire on September 30, 2011. An amendment, which limits the percentage of policies the Federal Emergency Management Agency (FEMA) can directly manage to 10 percent, was approved by the House. Under this amendment, FEMA would have the authority to refuse insurance policy transfers from private insurance companies. The bill must now pass the Senate to become law. It has been referred to the Senate Committee on Banking, Housing, and Urban Affairs.

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17. Policymakers Take Education Outdoors

The No Child Left Inside Act of 2011 (S. 1372 and H.R. 2574) was introduced on July 14, 2011 in the House and the Senate. The bipartisan effort, lead by Senator Jack Reed (D-RI), Senator Mark Kirk (R-IL) and Representative John Sarbanes (D-MD), encourages teachers to take their students outside and connect with nature. Supporters of the bill argue it is an effort to reincorporate environmental education after the No Child Left Behind Act of 2001 (P.L. 107-110) minimized its importance. The legislation amends the Elementary and Secondary Education Act of 1965 (P.L. 89-10). The sponsors of the legislation say the bill

is a way to engage students in science, technology, engineering and math (STEM) education while promoting an active lifestyle.

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18. NASA Completes Last Space Shuttle Run

The space shuttle Atlantis took one final trip into low Earth orbit and hooked up with the International Space Station in July 2011. The 135th flight of the shuttle (STS-135) ended the National Aeronautics and Space Administration's (NASA) 30-year shuttle program. Atlantis brought 11,600 pounds of supplies to the space station and removed 5,700 pounds of materials to be returned to Earth.

The shuttle program included six orbiters: Columbia (28 missions), Challenger (10 missions), Discovery (39 missions), Atlantis (33 missions), Endeavour (25 missions) and Enterprise (test vehicle on display at Dulles Airport). Challenger and crew were lost about 73 seconds after liftoff in an explosion on January 28, 1986 and Columbia and crew were lost about 16 minutes before landing in an explosion on January 16, 2003. In fiscal year 2010, the average cost to prepare and launch a shuttle mission was \$775 million and the cost to build Endeavour was \$1.7 billion in 1991. The total cost of the program was \$113.7 billion (not adjusted for inflation). The program never met its objective of routine and inexpensive flights, but it accomplished many other objectives.

The shuttles carried more than three million pounds of cargo, mostly made up by 50 satellites and the major pieces of the International Space Station, into space. Interplanetary craft, Magellan, Galileo and Ulysses were launched from shuttles and astrophysical observatories, the Hubble Space Telescope, Gamma Ray Observatory, Diffuse X-ray Spectrometer and Chandra X-Ray Observatory were deployed from shuttle bays. Shuttles docked with the Russian Mir Space Station and with the International Space Station bringing cargo and crew. Hundreds of experiments were conducted on the orbiters and crews serviced and repaired many satellites. Not to be forgotten are the thousands of photographs and Earth observations completed by the crew members. NASA counts about 100 technology spinoffs from the shuttle program including artificial hearts, land mine detectors, green lubricants, home and automotive insulation, and video stabilization software.

Discovery will retire to the Smithsonian's National Air and Space Museum Steven F. Udvar-Hazy Center in Virginia. Enterprise will move to the Intrepid Sea, Air and Space Museum in New York, Endeavour will retire to the California Science Center in Los Angeles and Atlantis will remain at the Kennedy Space Center Visitor's Complex in Florida. Members of the Texas delegation in Congress have requested that a shuttle be retired in or loaned to Texas, probably at the Johnson Space Center Visitor's Complex in Houston, but NASA has so far not altered their plans.

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19. NSF Has No Icebreakers for Antarctica Research Bases

Each year, the National Science Foundation (NSF) uses icebreakers to barrel through miles of ice to access and restock the McMurdo Research Station in Antarctica during the summer months of December and January. For the 2011-2012 season, NSF may not be able to get to McMurdo because there are no available icebreakers. For the past five years, NSF has been leasing the Swedish icebreaker, *Oden*, to transport supplies to McMurdo. Sweden did not renew its contract with NSF this year because they may need the *Oden* in the Baltic Sea where heavy ice disrupted cargo traffic last winter.

The United States has three icebreakers. The *Polar Sea* is being decommissioned, the *Polar Star* is being repaired and the *Healy* is being used in the Arctic. In a hearing in July before the Senate Committee on Commerce, Science, and Transportation, Coast Guard Commandant Robert Papp did not rule out the possibility that *Healy* could come to the rescue. If no solution is found in time, McMurdo and the South Pole station would have to ration their fuel, which is used for power, water, flight operations, and field camps, until at least January 2013.

Congress transferred the responsibility for the three icebreakers to NSF from the Coast Guard a few years ago, but there have been requests to transfer the responsibility back to the Coast Guard, to build a new fleet for Arctic and Antarctic use, and to decommission the remaining ships as new ships become available. With the opening of the Arctic to greater navigation, exploration and development and the need for continued work in Antarctica, the U.S. cannot afford to have limited navigation capabilities.

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20. NRC Issues Safety Report and Yucca Mountain License Evaluation

The Nuclear Regulatory Commission (NRC) has been busy reviewing nuclear power plants in the wake of the Fukushima Dai-ichi nuclear power plant failures in Japan and closing out work on the Yucca Mountain license application.

On July 12, a Near-Term Task Force set-up by the NRC, reviewed the NRC's processes and procedures in light of the Fukushima Dai-ichi nuclear power plant failures in Japan. The task force report, *Recommendations for Enhancing Reactor Safety in the 21st Century*, recommends clarifying the regulatory framework, ensuring protection, enhancing mitigation, strengthening emergency preparedness and improving the efficiency of NRC programs. In particular, the task force recommends that plants reevaluate and

upgrade as needed the design-basis seismic and flooding protection of each reactor and consider ways to mitigate seismically-induced fires and floods.

On July 21, the NRC published the first of three technical evaluation reports about their review of the Yucca Mountain nuclear waste repository license application. NRC plans to publish two more technical reports and then close out the license application process by September 30, 2011. Congress has not changed the law naming Yucca Mountain as the primary high-level nuclear waste geologic repository and the House went as far as to provide funding for continued work on the Yucca Mountain license application in the fiscal year 2012 Energy appropriations bill even though the Obama Administration has requested terminating all funding for Yucca Mountain. The fall could be a critical time for decisions on Yucca Mountain.

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21. BOEMRE Increases Maximum Civil Penalty Amounts

The Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE) announced on June 29, 2011 that the maximum penalty for violation of the Outer Continental Shelf Lands Act would increase from \$35,000 to \$40,000 per day and the penalty for violation of the Oil Pollution Act would increase from \$25,000 to \$30,000 per day. These increases adjust for inflation, but the Obama Administration and BOEMRE are urging Congress to pass legislation allowing the maximum penalty rates to be higher. BOEMRE Director Michael R. Bromwich has called the fines “a trivial nuisance rather than an effective deterrent” in regulating offshore oil and gas activities.

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22. NOAA Releases Most Recent 30-Year Climate Normals

On July 1, the National Oceanic and Atmospheric Association (NOAA) announced the latest 30-year Normals of climatic variables such as temperature, precipitation, and snowfall. The results include data compiled from over 7,500 locations across the United States. Every state’s average annual maximum and minimum temperature increased while the average temperature of the U.S. from 1981 to 2010 increased by about a half degree Fahrenheit from the 1971 to 2000 period. This past decade was particularly hot, with an average temperature about 1.5 degrees Fahrenheit warmer than in the 1970s.

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< 23. Western States and NOAA Release MOU to Improve Climate Services

The National Oceanic and Atmospheric Administration (NOAA) and the Western Governors’ Association (WGA), comprised of 19 Western states and three Pacific Islands, signed a memorandum of understanding (MOU) to assist in the development and distribution of climate change information “to support the adaptation priorities and resource management decisions of WGA members.” WGA and NOAA will be creating working groups to facilitate new services including disaster risk reduction, seasonal outlooks, and early warning and rapid response information. In addition to NOAA’s forecasting capabilities, this alliance will receive climate change information from other federal agencies, such as the Council on Environmental Quality.

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24. Department of Commerce Release Report on STEM Related Careers

The Department of Commerce’s Economic and Statistics Administration released “STEM: Good Jobs Now and for the Future,” a report that outlines U.S. employment in science, technology, engineering, and mathematics (STEM) fields. This report offers an inside look at workers who are propelling America forward with “new ideas, new companies, and new industries.” The report found that over the past 10 years, STEM jobs grew three times faster than non-STEM jobs and STEM employees earned 26 percent more than non-STEM workers. President Obama has made STEM education a priority in ensuring U.S. competitiveness.

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25. U.S. Department of Education Releases College Cost Data

On June 30, 2011 the U.S. Department of Education released College Affordability and Transparency Lists as part of the Higher Education Opportunity Act of 2008 (P.L. 110-315). Separate lists rank the public and private institutions with the highest and lowest costs as well as the highest percentage increase in costs. The institutions where prices are rising the fastest will be required to report why costs have gone up and how they plan to address rising prices. These reports will be available online. The College Affordability and Transparency Center web site includes information on admissions, retention and graduation rates, and financial aid.

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26. Leadership Shakeup at DOE, EPA, State Department

The U.S. Environmental Protection Agency (EPA) on July 8, 2011 announced Nicholas DiPasquale as the new Director of EPA’s Chesapeake Bay Program. DiPasquale has served as Secretary of the Delaware Department of Natural Resources and Environmental Control, Deputy Secretary in the Pennsylvania Department of Environmental Protection, and Director of the Environmental Management Center for the Brandywine Conservancy in Chadds Ford, PA. He holds a bachelor’s degree in Public

Administration from the State University of New York and a master's degree in Energy and Environmental Policy from Washington University in St. Louis.

President Obama nominated Charles McConnell to be the Department of Energy's (DOE) Assistant Secretary for Fossil Energy. McConnell is the Chief Operating Officer in the Office of Fossil Energy and has served as Vice President of Carbon Management at Battelle Energy Technology. He holds a bachelor's degree in Chemical Engineering from Carnegie-Mellon University and a master's of business administration in Finance from Cleveland State University.

E. William "Bill" Colglazier has been selected to be the new Science and Technology Advisor to Secretary of State Hillary Clinton. Colglazier is a recent retired executive officer of the National Academy of Sciences (NAS) and the National Research Council. Before working at NAS, he was a physics professor, directed the Energy, Environment, and Resources Center at the University of Tennessee, and worked at Stanford, Princeton, and Harvard. He was an American Association of the Advancement of Science (AAAS) Congressional Science Fellow in Congressman George Brown's office. He holds a Ph.D. in theoretical physics from California Institute of Technology.

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27. ExxonMobil Pipeline Bursts Under Yellowstone River

At about 11 pm on Friday, July 1, ExxonMobil Pipeline Company's 20 year-old Silvertip pipeline ruptured under the Yellowstone River releasing about 1,000 barrels of oil before the pipeline was shut down. The rupture occurred 20 miles upstream of Billings, Montana. The Environmental Protection Agency (EPA) is leading the cleanup efforts in cooperation with the Department of the Interior, the Coast Guard and ExxonMobil. While crews are deploying booms and mats along river banks to absorb and dispose of the oil that has pooled in slow waters, EPA is collecting water and air samples to analyze for volatile organic compounds. The large snowpack, increased snowmelt and subsequent high flow rate on the river may have contributed to the rupture and is definitely complicating the cleanup efforts by limiting access and crippling equipment. As of July 23, EPA has announced that there is oil visible for about 72 miles downstream of the rupture. The U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA) has directed ExxonMobil to make safety improvements on the pipeline before operation can resume. In particular, they want the pipeline re-buried under the riverbed to protect it from damage. PHMSA is still determining the cause of the break.

At a July hearing before the Senate Committee on Environment and Public Works, Cynthia Quarterman, PHMSA administrator, testified that the pipeline has a four foot depth-of-cover requirement. In June 2011 PHMSA requested a confirmation from ExxonMobil of the depth-of-cover for the pipeline because the flow rate and volume picked up in May as the large snowpack melted and rivers flooded. PHMSA warned all pipeline operators in flood prone areas to check their systems. ExxonMobil reported that there was 12 feet of cover at the south bank but did not report a depth-of-cover in the riverbed. ExxonMobil last reported a depth-of-cover in the riverbed in a December 2010 survey which found the pipeline to be at a depth of five feet, one foot below the four foot minimum.

ExxonMobil Pipeline Company President Gary Pruessing has promised to do "whatever is necessary" to clean up the spill, but this has not stopped Montana's governor, senators and other lawmakers from calling for more oversight and information. After initially being a part of the joint command team, Montana state officials backed out one week after the spill. Governor Brian Schweitzer explained the state was not satisfied with ExxonMobil's transparency. Senators Max Baucus (D-MT) and Jon Tester (D-MT) have told ExxonMobil Corporation Chief Executive Officer Rex Tillerson that ExxonMobil should pay for the full cost of the cleanup. The senators have requested information on inspections and communications with federal regulators regarding the pipeline.

Immediately after the spill, House Energy and Commerce Committee Chairman Fred Upton (R-MI) distributed a discussion draft of the Pipeline Infrastructure and Community Protection Act of 2011. The House Committee on Energy and Commerce Subcommittee on Energy and Power passed a version of this draft on July 27. This bill would set penalties for major violators, create minimum engineering standards to reduce pipeline damage, require automatic or remote-controlled shut-off valves, expand inspection and regulation coverage to non-petroleum fuels, and require PHMSA's inspection information to be available to the public. During the subcommittee mark-up, Representative John Dingell (D-MI) and Chairman Fred Upton introduced an amendment that included two provisions designed to respond to recent high-profile pipeline breaks. The first would require gas line operators to report their maximum allowable operating pressure, a key issue in the 2010 rupture that killed eight residents of San Bruno, California; the second, would set up a PHMSA review of existing rules for the burial of pipelines under waterways. This issue has been reviewed recently as questions about the cause of the Yellowstone River spill remain unanswered. Representative Jackie Speier's (D-CA) bill, the Pipeline Safety and Community Empowerment Act of 2011 (H.R. 22), contains a series of provisions that require pipeline owners and operators to make information about the operation of the pipeline available to the public. Senator Dianne Feinstein's bill, the Strengthening Pipeline Safety and Enforcement Act of 2011 (S. 234), is similar to the House Energy and Commerce bill but it would increase PHMSA's inspection force by 100 employees. The incident has reopened congressional debate about the Keystone XL pipeline proposal. Keystone XL would extend from the Canadian tar sands in Alberta to the Texas coast if the State Department approves the pipeline extension. Representative Steven Cohen (D-TN) has stated that the Montana spill is a small example of what could happen with Keystone XL. He noted that there have already been 12 spills in one year along the current Keystone pipeline in Canada. Policymakers are looking for assurances that pipelines have proper oversight and are not prone to breaks or leaks.

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28.AEP Halts West Virginia Mountaineer CCS Project

On July 14, 2011, the American Electric Power Company (AEP) shelved their plans to capture carbon dioxide emissions from a coal-burning power plant in West Virginia. In 2009, AEP began operating the first fully integrated carbon capture and sequestration (CCS) project at the Mountaineer Plant. This facility used the chilled ammonia process to remove the carbon dioxide from the unit's exhaust. The carbon dioxide is compressed into a liquid-state and is then injected through wells into geologic layers 1.5 miles underground where the carbon dioxide is permanently stored. The CCS project demonstrated that CCS technologies can be integrated on an existing coal-fired power plant and provided a blueprint of design and operation for future CCS installations. The Department of Energy funded a portion of the cost which the contract has now been terminated. The decision to put the CCS project on hold is due to AEP's inability to invest \$668 million into CCS without federal policy and the assurance that AEP will be able to recoup their costs. AEP burns more coal than any other U.S. power company and without CCS, AEP realizes that its coal plant may not be able to survive in a marketplace that puts a price on carbon. With the current partisan divide on Capitol Hill regarding energy policy, the idea of a federal policy on CCS seems unlikely in the near future. Power companies and lawmakers agree that storing carbon emissions in underground rock formations would allow the world to keep using coal while cutting emissions to levels that will help to stabilize the climate.

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29. United Nations Statement on Security Implications of Climate Change

The United Nations (UN) Security Council issued a statement on July 20 expressing concern that the effects of climate change could "aggravate certain existing threats to international peace and security" and that loss of land due to rising seas "could have possible security implications." The statement came after a day of debate to discuss the security ramifications of the effects of a changing climate. Secretary-General Ban Ki-moon, present at the debate, said, "The facts are clear: climate change is real and accelerating in a dangerous manner." He called for ambitious steps to reduce climate change and for "sustainable development for all" to be the defining issue of our time. Regional climate change is already a factor, he pointed out, in local conflicts in Darfur, the Central African Republic, Chad, and northern Kenya and could lead to a large number of "environmental refugees." Peacekeeping operations are expensive and the costs will only increase if the global average temperature is not kept below a rise of two degrees Celsius, the Secretary-General told the council. After representatives from 59 nations spoke, the council agreed that "contextual information" about the possible security implications of climate change is necessary for the UN to maintain and strive for global stability.

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30. National Research Council Releases STEM Education Reports

The National Research Council (NRC) of the National Academies of Science released two new Science Technology Engineering and Mathematics (STEM) education reports, "Successful K-12 STEM Education: Identifying Effective Approaches in Science, Technology, Engineering, and Mathematics" and "A Framework for K-12 Science Education: Practices, Crosscutting Concepts,

and Core Ideas.” The first report, released in June, was released by the STEM K-12 Commission funded by the National Science Foundation. Representative Mark Wolf (R-VA) secured funding for the commission in the FY 2010 appropriations hearing. This report focuses on science and math, highlighting successful K-12 school and programs throughout the U.S. Released by the NRC Board on Science Education, the second report provides recommendations, though no specific curriculum, on K-12 science education. It suggests educators focus on four broad core areas, which include physical sciences, life sciences, Earth and space science, and engineering and applied science. The authors expect resistance from some public schools on the report’s stance on climate change and renewable energy education.

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31. RAND Reports on Alternatives to Peer Review

RAND Corporation released a technical report titled “Alternatives to Peer Review in Research Project Funding.” This report offers unique alternatives to traditional peer review, categorizing the alternative approaches into three key elements of the decision making process: funding strategy, expected outcome, and reviewers. Within these three categories, there are two to three different approaches to achieve a funding strategy, an expected outcome, or a peer review panel. This report’s purpose is to show research funders innovative ways to improve the review process. RAND hopes that research funders will consider these alternatives to peer review in efforts to support a ranging portfolio of projects leading to new influential work.

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32. AGU Fall 2011 Public Affairs Internship

The American Geophysical Union (AGU) is now accepting applications for a fall 2011 public affairs intern. The position will last for three months with an anticipated start date of September 12, 2011. Applicants can be current students or recent graduates and should have excellent online research, writing, and organizational skills. More information is available on the AGU web site.

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33. Key Reports and Publications

*****National Academy of Sciences (NAS)*****

Assessing Requirements for Sustained Ocean Color Research and Operations

In this report, the National Academy of Science warns the United States is losing its ability to monitor ocean color. An understanding of ocean health is critical in monitoring nitrogen, carbon, oxygen, and sulfur cycling, as well as global climate systems. The report emphasizes the need to maintain satellite monitoring, as the magnitude of the oceans makes small scale monitoring ineffective. It also recommends replacing satellites that have reached or are beyond maximum lifespan.

An Assessment of the Deep Underground Science and Engineering Laboratory

Located in Deadwood, South Dakota, the Deep Underground Science and Engineering Laboratory (DUSEL) facilities were established to shield its extremely sensitive detectors from the noise of its aboveground surroundings and cosmic rays. Researchers hope this environment will create similar conditions predicted during the earliest stages of Earth. This report published by the National Research Council addresses the broader impacts that DUSEL could have on the field of physics, education and public outreach, and the U.S.’s standing in the international experimental research community.

*****Government Accountability Office (GAO)*****

Abandoned Mines: Information on the Number of Hardrock Mines, Cost of Cleanup and Value of Financial Assurances

Since 2005, the Government Accountability Office (GAO) has issued various reports pertaining to current and abandoned hardrock mining operations that might pose risks to the public through contaminated land and water and hazardous structures. This report summarizes key findings including the cost of abandoned mine cleanup, quantity of abandoned hardrock mines, and availability of information on mining activities. The report states that between 1997 and 2008, federal agencies spent \$2.6 billion on reclamation of abandoned hardrock mine sites. It estimates that 161,000 abandoned mine sites exist in 12 western states and Alaska, with 33,000 causing contamination to water resources. The report suggests the federal agencies work together to combine data in order to provide comprehensive information to the public.

Safe Drinking Water Act: EPA Should Improve Implementation of Requirements on Whether to Regulate Additional Contaminants

The Government Accountability Office (GAO) prepared this report to assess the Environmental Protection Agency’s (EPA) efforts to implement a 1996 amendment to the Safe Drinking Water Act which requires that every five years at least five contaminants are assessed to determine whether regulation is warranted. The report also specifically reviewed the analyses used to develop preliminary regulation on perchlorate in 2008. The report provides 17 recommendations for the EPA to improve the identification and testing process for unregulated drinking water contaminants and develop policies for the interpretation of statutory criteria.

Space Research: Content and Coordination of Space Science and Technology Strategy Need to be More Robust

Every two years the Department of Defense (DOD) and the Director of National Intelligence (DNI) collaborate on a space science

and technology strategy which addresses science and technology goals and a strategy to reach those goals. The Government Accountability Office (GAO) has reviewed this strategy and found that DOD and DNI need to develop a more specific strategic plan, include additional prioritization, include ways to measure progress, and enhance coordination between DOD and DNI and the National Aeronautics and Space Administration (NASA), the National Oceanic and Atmospheric Administration (NOAA), and the intelligence community.

Climate Change Adaptation: Aligning Funding with Strategic Priorities

The Senate Committee on Appropriations requested information on what steps federal, state and local agencies are taking to address climate change, what challenges the agencies are likely to face in their efforts to adapt, and to what extent federal funding is aligned with strategic priorities. The Government Accountability Office (GAO) found that federal funding could be better tracked, reported, and aligned with strategic priorities. Furthermore, leaders of federal agencies lack a clear understanding of national priorities and systems to link funding with national priorities are nonbinding and are often set aside for the agencies' own priorities.

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34. Key Federal Register Notices

DOE – The Department of Energy's Office of Energy Efficiency and Renewable Energy has released its Geothermal Blue Ribbon Panel Report on the future of geothermal energy in the United States and DOE's role. Further information can be found in the notice. [**Friday, July 1, 2011 (Volume 76, Number 127)**]

EPA – The Environmental Protection Agency (EPA) is soliciting comments on its proposed 2012 renewable fuel standards. The proposed rules can be read and commented on before August 11, 2011. [**Friday, July 1, 2011 (Volume 76, Number 127)**]

EPA – The Environmental Protection Agency (EPA) has extended its public comment period for the proposed emissions standards for hazardous air pollutants from coal- and oil-fired electric utility steam generating units. The public may submit comments until August 4, 2011. [**Friday, July 1, 2011 (Volume 76, Number 127)**]

NIST – The National Institute for Standards and Technology (NIST) is requesting nominations for individuals for appointments to its nine federal advisory committees including the Advisory Committee on Earthquake Hazards Reduction. [**Tuesday, July 5, 2011 (Volume 76, Number 128)**]

DOI – The Bureau of Reclamation and the National Park Service announce their intent to begin a long-term experimental and management plan for the operation of Glen Canyon Dam. [**Wednesday, July 6, 2011 (Volume 76, Number 129)**]

DOE – The Department of Energy (DOE) has released its semiannual Unified Agenda of Federal Regulatory and Deregulatory Actions which compiles ongoing and upcoming regulatory activities taking place over the next year. The agenda can be viewed here. [**Thursday, July 7, 2011 (Volume 76, Number 130)**]

EPA – The Environmental Protection Agency (EPA) has also released its semiannual Unified Agenda of Federal Regulatory and Deregulatory Actions. The agenda will outline EPA's regulations and major policies under development, existing regulations and major policies, and rules and major policies completed or canceled since the last published agenda. [**Thursday, July 7, 2011 (Volume 76, Number 130)**]

DOI – The Department of the Interior (DOI) released its agenda of federal regulatory and deregulatory actions. The public are requested to submit comments to the appropriate staff found in the notice. [**Thursday, July 7, 2011 (Volume 76, Number 130)**]

NRC – The Nuclear Regulatory Commission has released its regulatory agenda. [**Thursday, July 7, 2011 (Volume 76, Number 130)**]

NOAA – The National Oceanic and Atmospheric Administration (NOAA) is seeking technical inputs and other comments/expressions of interest on topics relating to the National Climate Assessment (NCA), the 2013 NCA Report, and on the NCA process. Instructions on how to submit comments can be found in the notice. [**Wednesday, July 13, 2011 (Volume 76, Number 134)**]

White House – The President has issued an Executive Order ordering all independent regulatory agencies to undertake a retrospective review of existing regulations and policies and release a plan to eliminate outmoded regulations, streamline ineffective ones, and expand or repeal others as necessary. [**Thursday, July 14, 2011 (Volume 76, Number 135)**]

NASA – The National Aeronautics and Space Administration (NASA) will have a meeting of the NASA Advisory Committee at NASA Ames Research Center in Moffett Field, California on Thursday, August 4 and Friday, August 5. [**Friday, July 15, 2011 (Volume 76, Number 136)**]

EPA – The Environmental Protection Agency (EPA) will withdraw parts of the 2009 final rule which amended the National Emissions Standards for Hazardous Air Pollutants from Petroleum Refineries. The portions that will be withdrawn on August 17, 2011 have to do with residual risk and technology review. [**Monday, July 18, 2011 (Volume 76, Number 137)**]

DOT – The Department of Transportation's (DOT) Commercial Space Transportation Advisory Committee will hold an open

teleconference on August 4, 2011. Instructions on how to listen in can be found in the notice. [**Monday, July 18, 2011 (Volume 76, Number 137)**]

EPA – The Environmental Protection Agency (EPA) is deferring regulation of biogenic carbon dioxide sources for three years. This includes emissions from bioenergy and other biogenic stationary sources. [**Tuesday, July 19, 2011 (Volume 76, Number 138)**]

DOE – The Department of Energy (DOE) is extending its public comment period on the scope of its Uranium Leasing Program Programmatic Environmental Impact Statement to September 9, 2011 and will hold public meetings in western Colorado from August 8 to 11. See the notice for details. [**Thursday, July 21, 2011 (Volume 76, Number 140)**]

NASA – The National Aeronautics and Space Administration (NASA) announces its intent to revise its policies implementing the National Environmental Policy Act of 1969 (NEPA) and the Council on Environmental Quality's (CEQ) code of federal regulation. Public comments will be accepted on or before September 19, 2011. [**Thursday, July 21, 2011 (Volume 76, Number 140)**]

NOAA – The National Oceanic and Atmospheric Administration (NOAA) will hold two public meetings via teleconference of the Marine Protected Areas Federal Advisory Committee on August 16 and August 23. Details can be found in the notice. [**Thursday, July 21, 2011 (Volume 76, Number 140)**]

EPA – The charter for the Environmental Protection Agency's (EPA) Environmental Laboratory Advisory Board will be renewed for an additional two more years. [**Monday July 25, 2011 (Volume 76, Number 142)**]

NOAA – The National Climate Assessment and Development Advisory Committee will hold a meeting on August 16 and 17, 2011 in Arlington, VA. Members of the public that wish to attend must RSVP before August 9. [**Monday, July 25, 2011 (Volume 76, Number 142)**]

EPA – The Environmental Protection Agency has released new proposed standards for nitrogen oxide emissions and other regulatory requirements for jet engines. Comments are to be submitted on or before September 26, 2011. [**Wednesday, July 27, 2011 (Volume 76, Number 144)**]

NRC – The Nuclear Regulatory Commission is seeking nominations for the position of agreement state representative on the Advisory Committee on the Medical Uses of Isotopes. [**Wednesday, July 27, 2011 (Volume 76, Number 144)**]

PHMSA – The Pipeline and Hazardous Materials Safety Administration is issuing an advisory bulletin to owners and operators of gas and hazardous liquid pipelines about the potential for damage to pipelines due to severe flooding. [**Wednesday, July 27, 2011 (Volume 76, Number 144)**]

DOE – The Secretary of Energy Advisory Board announces an open meeting on August 15 to discuss an interim report from the Natural Gas Subcommittee. [**Friday, July 29, 2011 (Volume 76, Number 146)**]

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35. Key AGI Government Affairs Updates

- Senate Hearing on U.S. Economic Interests in the Arctic (8/1/11)
- House Hearing on Merit Review at NSF (8/1/11)
- Senate Hearing on the Yellowstone River Oil Spill (7/27/11)
- Senate Hearing on the Future of Natural Gas (7/22/11)
- House Hearing on Abandoned Mine Lands (7/21/11)
- Senate Hearing on Renewable Energy Legislation (7/18/11)
- Senate Hearing on EPA's Implementation of the Safe Drinking Water Act (7/18/11)
- House Hearing on NASA's Plans for a Space Launch System (7/18/11)
- House Hearing on Public Lands Legislation (7/18/11)
- House Hearing on Oil and Gas Development on Public Lands (7/18/11)
- House Hearing on the Challenges of Biofuels (7/11/11)
- Update on Appropriations for FY12 (7/7/11)
- Senate Hearing on the Status of the Restoration of the Gulf of Mexico (7/7/11)
- Senate Hearing on EPA's Clean Air Regulations (7/5/11)

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Monthly Review prepared by Wilson Bonner and Linda Rowan, Staff of Government Affairs Program; Lauren Herwehe, 2011 AIPG/AGI Summer Intern; Vicki Bierwirth, 2011 AIPG/AGI Summer Intern and Erica Dalman 2011 AIPG/AGI Summer Intern. Sources: Associated Press, AAAS, Environment and Energy Daily, Greenwire, New York Times, Washington Post, National

Academies Press, American Institute of Physics, Soil Science Society of America, Government Accountability Office, Open CRS, Thomas, House of Representatives, U.S. Senate, the White House, Department of Energy, Department of the Interior, National Aeronautics and Space Administration, Environmental Protection Agency, National Science Foundation, National Oceanic and Atmospheric Administration, Nuclear Regulatory Commission, Department of Transportation, Department of Commerce, Department of State, Department of Education, RAND Corporation, United Nations, American Electric Power Company.

This monthly review goes out to members of the AGI Government Affairs Program (GAP) Advisory Committee, the leadership of AGI's member societies, and other interested geoscientists as part of a continuing effort to improve communications between GAP and the geosciences community that it serves. For additional information on specific policy issues, please visit the web site or contact us at govt@agiweb.org.

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