

Department of the Interior Appropriations: FY 2013

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Geoscience-related agencies within the Department of Interior include the U.S. Geological Survey, Bureau of Land Management, Minerals Management Service, National Park Service, Smithsonian Institution, and U.S. Forest Service.

Fiscal Year 2013 (FY13) Department of Interior Appropriations Process

<u>Account</u>	<u>Enacted FY12</u> (\$million)	<u>FY13 President's Request</u> (\$million)	<u>House Action</u> (\$million)	<u>Senate Action</u> (\$million)	<u>Conference Committee Action</u> (\$million)
<i>U.S. Geological Survey*</i>	1,070	1,102	967	1,083	
Natural Hazards	134.5	144.8	107.4	140	
-- Earthquake Hazards	55.1	58.9	44.1	58.9	
-- Volcano Hazards	24.8	25.0	19.8	26	
-- Landslide Hazards	3.3	3.9	2.6	3.9	
-- Global Seismographic Network	5.3	5.5	4.3	5.5	
-- Geomagnetism	2.1	2.2	1.7	2.2	
-- Coastal and Marine Geology	44	49.3	34.9	43.6	
Energy, Minerals & Environmental	96.2	97.1	88.3	95	
-- Mineral Resources	49.2	45.3	46.8	47	
-- Energy Resources	27.3	30.5	21.8	28.5	
-- Contaminants	9.1	9.9	9.1	9.2	
-- Toxic Substances Hydrology	10.6	11.5	10.6	10.3	
Core Science Systems	106.8	120.4	112.3	117.9	
-- Geologic Mapping	26.3	28	26.3	28.2	
-- Science Synthesis, Analysis, and Research	15	26		24.3	

-- Data Preservation	1.0	1.0*	1.0	0	
--Geospatial Program	64.3	66.1	64.3	65.4	
Water Resources Programs	215	209.8	219.8	215.8	
Ecosystems	161.3	177.9	132.5	170.7	
Climate and Land Use Change	144.1	153.7**	128.3	145.5***	
Facilities	100.6	99.7	96.0	99.7	
Administration & Enterprise	110.4	99.1	82.4	99.1	
Bureau of Land Management	1,115	1,146		1,095	
Energy and Minerals Management	107.6	92.9		93.9	
Bureau of Ocean Energy Management		164			
Bureau of Safety and Environmental Enforcement		222			
National Park Service	2,584	2,609		2,578	
NPS Resource Stewardship	329.8	333.4		332.4	
Smithsonian Institution	810	856.8		843	
U.S. Forest Service	4,602	4,861		4,737	
Minerals and Geology Management	83.4	73.4		63.4	

*The Administration has proposed to merge the National Geological and Geophysical Data Preservation Program with the Biological Information Management and Delivery program to a single subactivity called Science Synthesis, Analysis, and Research. **Includes \$53.3 million to complete the Landsat Data Continuity Mission/Landsat 8 Ground System ^These numbers have been approved by the House Appropriations Committee, but have not yet been considered by the full House. #The Senate Committee on Appropriations Subcommittee on Interior, Environment, and Related Agencies released a draft bill on September 25. ***Includes \$53,337,000 for satellite operation of which \$7,280,000 is for deferred maintenance and capital improvement projects that exceed \$100,000 in cost.

President's Request

On February 14, the United States Geological Survey (USGS) held a briefing to discuss the President's fiscal year (FY) 2013 budget request for the USGS. Assistant Deputy Secretary for Water and Science Lori Caramanian briefly spoke about the Secretary's department-wide initiatives and the role USGS will undertake to realize them.

The USGS would be provided with a modest increase of \$35 million above the FY 2012 enacted level. Director Marcia McNutt said "we are extremely excited about that vote of confidence" by the President to be given so much research and development (R&D) funding in the budget request. "Given the state of the economy, to have a budget that is basically in the black is probably the best the USGS could imagine," she reiterated. McNutt explained the process of developing the request with the administration and said that all efforts were taken to protect core programs, research and development, and to preserve programs that saved lives and protected properties. She pointed out that most of the cuts, therefore, would be to the agency's assessment portfolio.

The USGS will take part in several department-wide initiatives in FY 2013 including \$13 million for the WaterSMART program. The budget would include an increase of \$13 million across several programs for the USGS to collaborate with the Department of Energy (DOE) and the Environmental Protection Agency (EPA) on hydraulic fracturing research. A \$16.2 million increase across several programs would fund USGS science in support of ecosystem management for the Chesapeake Bay, the California Bay-Delta, the Columbia River, the Everglades, the Puget Sound, the Great Lakes, the Upper Mississippi River, and the Klamath Basin. The President's budget would provide \$6.8 million to implement a new initiative on Science for Coastal and Ocean

Stewardship as part of the National Ocean Policy. An additional \$1 million increase would fund collaboration among Interior bureaus to provide scientific information to policymakers concerning the permitting, implementation, and operation of wind turbines on public lands.

The Natural Hazards Program would see a \$10.3 million increase under the President's proposal. An increase of \$2.4 million would be for improving disaster response and \$1.6 would be for researching earthquake hazards on the East Coast. These increases would be partially offset by reducing the Volcano Hazards Program (- \$1 million) to prioritize and focus on protecting life and property. The Natural Hazards Program would see a \$2.4 million increase to support rapid disaster response efforts. The money would be divided among Earthquake Hazards (\$0.85 million), Volcano Hazards (\$1 million), and Landslide Hazards (\$0.5 million). An additional \$1.1 million would be given to Earthquake Hazards as part of the DOE/EPA/USGS hydraulic fracturing research.

The FY 2013 budget proposal includes \$97.1 million for the Energy, Minerals, and Environmental Health Program (+ \$0.9 million) but includes a \$5.25 million reduction in the Minerals Resources Program. The reductions come from the Minerals External Research Program (- \$0.25 million) and the Mineral Resources account (- \$5 million). The budget does provide, however, \$1 million to support research on rare earth elements and \$0.3 million for fixed costs in the Mineral Resources Program. The Energy Resources Program would receive a \$3.2 million increase to cover wind energy research (+ \$1 million) under the Secretary's New Energy Frontier initiative and for DOE/EPA/USGS hydraulic fracturing research (+ \$3 million). The President's budget would decrease the Energy Resources Conventional Energy subactivity by \$1 million from 2012 mainly by reducing grants to states for coal resource assessments.

The Core Science Systems Program would see a \$13.7 million increase with an increase to the National Cooperative Geologic Mapping program (+ \$1.691 million) and to the National Geospatial Program (+ \$1.744 million). The increases for the National Cooperative Geologic Mapping program would be for the department-wide WaterSMART initiative (+ \$1 million) and DOE/EPA/USGS hydraulic fracturing research (+ \$2 million). The National Cooperative Geologic Mapping Federal and State Partnerships subactivity would be reduced by \$1.5 million relative to FY 2012 enacted. The National Cooperative Geologic Mapping program would be funded at \$28 million in FY 2013. The budget proposal would move the National Geological and Geophysical Data Preservation Program and the Biological Information Management and Delivery Program into a single subactivity called Science Synthesis, Analysis, and Research, which the proposal funds at \$26.3 million. The data preservation program would be flat funded at \$0.99 million.

The Water Resource Program would be cut \$4.8 million from the FY 2012 enacted level. The USGS would move forward with a water census and the establishment of a National Groundwater Monitoring Network program. A proposed increase of \$5.5 million for stream flow information is intended to help inform disaster response efforts in the event of a flood or hurricane. The request would reduce funding to the Cooperative Water program (- \$5 million), the Water Resources Research Act (- \$6.5 million), and Hydrologic Networks and Analysis (- \$3.7 million).

The Climate and Land Use Change Program would see a \$9.7 million increase under the President's budget. All eight Department of the Interior Climate Science Centers would be fully funded and a \$6.6 million increase to Science Support for DOI Bureaus would be used "to conduct research and develop tools and protocols for assessing and monitoring changes on the landscape and to maintain partnerships with other Interior bureaus, universities, and stakeholders in building an understanding of climate impacts and adaptation strategies." A proposed \$1.2 million increase for the Climate Research and Development Program is intended to fund paleoclimatological studies of the impacts of sea level rise on ecosystems. The Land Use Change subactivity houses the Landsat Missions Program which funds the operation of Landsat satellites and the completion of the Landsat Data Continuity Mission. This program would receive \$53.3 million in the President's budget request which includes a \$2 million program reduction from FY 2012 for the development of the Landsat 9 mission. At the budget briefing, McNutt said the USGS is actively collaborating with the National Aeronautics and Space Administration (NASA), the National Oceanic and Atmospheric Administration (NOAA), the Office of Management and Budget (OMB), and the Office of Science and Technology Policy (OSTP) to develop a more cost effective way for providing land remote sensing data in the future. The agencies are hoping to find a solution by the summer of 2012. The President's budget would provide other increases to the Climate and Land Use Change program for Carbon Sequestration (+ \$0.25 million), Rapid Disaster Response (+ \$0.75 million), and Ecosystem Restoration (+ \$1.5 million).

The Administration and Enterprise Information Program's former Information Resources subactivity would be moved in the President's request to the Science Synthesis, Analysis, and Research subactivity in the Core Science Systems Program. This programmatic change correlates with an \$8.1 million transfer to the Science Synthesis, Analysis, and Research from Administration and Enterprise Information.

House Action

The House Appropriations Committee has considered and approved the Interior-Environment Appropriations Bill for fiscal year 2013 by a vote of 26 to 19 on June 28, 2012. The bill will now be placed in the queue for consideration by the full House at a later date. The table above provides the funding levels for USGS programs. There are significant cuts to many programs. Please visit the committee web link above for more information about specific programs and funding levels.

The House of Representatives considers funding for the Environmental Protection Agency (EPA) within the Interior, Environment, and Related Agencies Subcommittee of the House Appropriations Committee.

Senate Action

On September 25, the Senate Committee on Appropriations Subcommittee on Interior, Environment, and Related Agencies released its FY 2013 draft spending bill. Though Congress has already passed a continuing resolution (H.J. Res 117) to fund the government through March 27, 2013, Subcommittee Chairman Jack Reed (D-RI) and Ranking Member Lisa Murkowski (R-AK) indicated they hope the draft will serve as a roadmap for future spending discussions.

Under the Senate Interior and Environment Subcommittee's recommendations, the Natural Hazards Mission Directorate would see a slight increase (+ \$5.5 million) over FY 2012 (except for Coastal and Marine Geology -\$0.4 million) and a large increase (+ \$32.6 million) over the House Appropriations Committee's FY 2013 recommendation. Core Science Systems would receive a ~ \$11.1 million increase and Ecosystems would receive a ~\$9.4 million increase. Energy and Minerals would see a slight decrease (- \$1.2 million) while Administration and Enterprise would take a larger decrease (- \$11.3 million). Water Resources, Climate and Land Use Change, and Facilities would be essentially flat-funded.

The text of the draft legislation includes the following language for the United States Geological Survey:

Surveys, Investigations, and Research

For expenses necessary for the United States Geological Survey to perform surveys, investigations, and research covering topography, geology, hydrology, biology, and the mineral and water resources of the United States, its territories and possessions, and other areas as authorized by 43 U.S.C. 31, 1332, and 1340; classify lands as to their mineral and water resources; give engineering supervision to power permittees and Federal Energy Regulatory Commission licensees; administer the minerals exploration program (30 U.S.C. 641); conduct inquiries into the economic conditions affecting mining and materials processing industries (30 U.S.C. 3, 21a, and 1603; 50 U.S.C. 98g(1)) and related purposes as authorized by law; and to publish and disseminate data relative to the foregoing activities; \$1,083,782,000, to remain available until September 30, 2014; of which \$53,337,000 shall remain available until expended for satellite operations; and of which \$7,280,000 shall be available until expended for deferred maintenance and capital improvement projects that exceed \$100,000 in cost: Provided, That none of the funds provided for the ecosystem research activity shall be used to conduct new surveys on private property, unless specifically authorized in writing by the property owner: Provided further, That no part of this appropriation shall be used to pay more than one-half the cost of topographic mapping or water resources data collection and investigations carried on in cooperation with States and municipalities.

Administrative Provisions

From within the amount appropriated for activities of the United States Geological Survey such sums as are necessary shall be available for contracting for the furnishing of topographic maps and for the making of geophysical or other specialized surveys when it is administratively determined that such procedures are in the public interest; construction and maintenance of necessary buildings and appurtenant facilities; acquisition of lands for gauging stations and observation wells; expenses of the United States National Committee for Geological Sciences; and payment of compensation and expenses of persons employed by the Survey duly appointed to represent the United States in the negotiation and administration of interstate compacts: Provided, That activities funded by appropriations herein made may be accomplished through the use of contracts, grants, or cooperative agreements as defined in section 6302 of title 31, United States Code: Provided further, That the United States Geological Survey may enter into contracts or cooperative agreements directly with individuals or indirectly with institutions or nonprofit organizations, without regard to 41 U.S.C. 6101, for the temporary or intermittent services of students or recent graduates, who shall be considered employees for the purpose of chapters 57 and 81 of title 5, United States Code, relating to compensation for travel and work injuries, and chapter 171 of title 28, United States Code, relating to tort claims, but shall not be considered to be Federal

employees for any other purposes.

The Senate considers funding for the DOI in the Interior, Environment and Related Agencies Subcommittee of the Senate Appropriations Committee.
Conference Action

Appropriations Hearings

- March 22, 2012: House Committee on Natural Resources Subcommittee on Energy and Mineral Resources Hearing to Review the "Effect of the President's FY 2013 Budget for the U.S. Geological Survey on Private Sector Job Creation, Hazard Protection, Mineral Resources and Deficit Reduction"
 - March 6, 2012: House Committee on Appropriations Subcommittee on Interior, Environment, and Related Agencies Hearing on the U.S. Geological Survey Budget for Fiscal Year 2013
 - February 29, 2012: Senate Committee on Appropriations Subcommittee on Interior, Environment, and Related Agencies Hearing on the Department of the Interior Budget for Fiscal Year 2013
 - February 16, 2012: House Committee on Appropriations Subcommittee on Interior, Environment, and Related Agencies Hearing on the Department of the Interior Budget for Fiscal Year 2013
 - February 15, 2012: House Committee on Natural Resources Hearing to Discuss the FY 2013 Budget Proposal for the Department of the Interior
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House Committee on Natural Resources Subcommittee on Energy and Mineral Resources Hearing to Review the "Effect of the President's FY 2013 Budget for the U.S. Geological Survey on Private Sector Job Creation, Hazard Protection, Mineral Resources and Deficit Reduction"

March 22, 2012

Witnesses:

Panel 1

Marcia McNutt

Director, United States Geological Survey

Panel 2

Jonathan Price

Nevada State Geologist

Member of Board of Directors, Society for Mining, Metallurgy and Exploration

Harvey Thorleifson

Minnesota State Geologist

President Elect, Association of American State Geologists

John Geissman

President, Geological Society of America

Geoscience Professor, University of Texas Dallas

Geoscience Professor Emeritus, University of New Mexico

Members Present:

Doug Lamborn (R-CO), Chairman

Rush Holt (D-NJ), Ranking Member

Glenn Thompson (R-PA)

Paul Tonko (D-NY)

Bill Flores (R-TX)

On March 22, 2012 the House Committee on Natural Resources Subcommittee on Energy and Mineral Resources held a hearing to review the United States Geological Survey (USGS) proposed budget for fiscal year (FY) 2013 and the impacts of that budget on private sector job creation, hazard protection, mineral resources, and deficit reduction. In his proposed budget released February 13, 2012, President Obama proposed \$1.1 billion, a \$34 million increase over FY 2012, for the USGS.

Chairman of the Subcommittee Doug Lamborn (R-CO) opened by expressing disappointment with the \$5 million in cuts to the minerals program. He emphasized the importance of the program's role in tracking the production of rare earth minerals when he

said, “This is an especially disturbing proposal in this period of resource nationalism exemplified by China's import restrictions on rare earth elements.” Lamborn noted that the Obama Administration has taken recent action by filing a complaint with the World Trade Organization about China's export restrictions of rare earth minerals. Lamborn stated the importance of rare earth minerals in the high technology tools used by the Department of Defense, medical technologies, telecommunications, and conventional and renewable energy. Lamborn acknowledged that next to the Internal Revenue Service (IRS), production of energy and minerals on federal lands represents the highest federal revenue source.

Ranking Member of the Subcommittee Rush Holt (D-NJ) opened by acknowledging the key role that the USGS plays in the nation's “innovation economy.” Holt applauded the \$1.6 million increase for earthquake hazards research along the East coast where he believes earthquake research has been “generally neglected.” Holt pointed out that legislation (H.R. 3479) introduced by House Republicans to reauthorize the National Earthquake Hazards Reductions Program (NEHRP) would cut funding by 30 percent. He approved of the \$13 million in proposed funding for research of hydraulic fracturing believing that it will ensure the drilling practice will be done safely for the public and the environment. He said he specifically looked forward to hearing about what the USGS is doing to identify the causes of induced seismicity as a result of wastewater reinjection. Holt closed by accusing the Republican policies regarding climate change of “steering America, I think, headlong toward a vastly altered climate and at the same time shutting off our headlights so that we have no idea when we are about to hit something.”

In her opening statement McNutt chose to reflect on her observations from meetings with the members of the Subcommittee. She said she found widespread bipartisan appreciation for the scientific work done by the USGS. McNutt said she noticed many members making the connection between the work of the USGS and the economies of their home districts. She proclaimed that energy and mineral assessments done by the USGS provide help to guide investments by the public and private sectors. In the FY 2013 budget, McNutt highlighted the \$50 million increase for new research and development, the \$13 million increase for hydraulic fracturing research, and the \$8.6 million increase for rapid response to natural disasters.

Lamborn began the question and answer portion of the hearing by stating that he believes the money allocated to research hydraulic fracturing is an attempt to “restrict the practice.” He asked McNutt to justify the use of millions of dollars towards an effort to “restrict” such a widely used practice. McNutt reassured Lamborn that the USGS has been asked in the past by states and industry to aide in hydraulic fracturing assessments. She cited an instance in North Carolina where the USGS was brought in prior to drilling to assess water quality. She said situations like this help in truly assessing water quality because often times areas of possible pollution lack baseline water quality data, thus making it impossible to determine how much pollution resulted from drilling. Lamborn expressed concern over the cuts to the National Cooperative Geologic Mapping Program (NCGMP). McNutt told Lamborn that she believes the money spent on hydraulic fracturing research in these states will produce high quality three dimensional visualizations that will serve the same purpose as the NCGMP.

Holt asked McNutt to elaborate on the skills and expertise that the USGS will bring to hydraulic fracturing and particularly understanding induced seismicity. McNutt exclaimed that the USGS has great expertise with induced seismicity and she insisted that this is a solvable problem. She said less than one percent of the 144,000 permitted waste water injection wells have a history of problems and she is confident that a study of these problem wells will result in a solution to the problem. She explained that the issues could encompass a number of things including the amount of water injected, the rate of pumping, the local geology of the produced wells, and the local state of stress. McNutt added that the USGS are the experts in how fluids move through the subsurface. So, further investigation into where this hydraulic fracturing fluid is going once it is injected will lead to a greater overall understanding of hydraulic fracturing. Holt made his case that less than one percent of wells with occurrences of induced seismicity are still too many if the earthquakes cause problems.

Paul Tonko (D-NY) and Bill Flores (R-TX) asked questions about rare earth minerals. Tonko stated that he did not believe that the \$1 million increase in the budget for investigation into rare earth minerals was sufficient given their importance in certain domestic industries. He asked McNutt if there are current up-to-date assessments of rare earth mineral deposits in the U.S. McNutt said the most recent assessment, “The Principal Rare Earth Deposits of the United States-A Summary of Domestic Deposits and a Global Perspective”, of rare earth deposits in the U.S. was in 2010. Flores emphasized the benefits of domestic production of rare earth minerals including good paying American jobs and an influx of money into the U.S. economy. He asked McNutt to what extent the USGS recognizes these benefits because it is not evident in the cuts made to the minerals program. She said these cuts came as a result of the Obama Administration placing a focus on new research and development and programs that protect life and property. She said that the programs that took hits were the assessments. She clarified that although “there has been erosion” of the overall minerals program the funding for the individual rare earth minerals program has doubled.

Member of the Board of Directors of the Society for Mining, Metallurgy, and Exploration (SME) Jonathan Price started the second portion of the hearing with his opening statement. He began by saying, “The global demand for mineral resources is at an all time high and China is the world's leader in the development of mineral resources.” He described this development as providing

“challenges, threats, and opportunities” to the United States. As a representative of SME, he announced that SME does not approve of the cuts to the USGS minerals program

President-Elect of the Association of American State Geologists (AASG) Harvey Thorleifson opened by calling the role of the USGS “essential to the operations of the U.S. government.” He stated that AASG works closely with the priorities of each state and works closely with the USGS. Thorleifson said the AASG endorses priorities such as a national groundwater monitoring network, improved disaster response, improved information about hydraulic fracturing, and increased attention to rare earth minerals. He stated that AASG strongly supports the NCGMP, a program in which AASG matches funding one-to-one with the USGS.

President of the Geological Society of America (GSA) John Geissman opened by stating that GSA supports full funding of the USGS and restoration of the proposed cuts. Geissman stated that historic and recent geologic records indicate that there continue to be areas in the U.S. particularly threatened by natural disasters such as earthquakes and natural hazards. He pronounced the importance of preparing the future geoscientists of America by citing a report “The Status of the Geoscience Workforce 2011” by the American Geosciences Institute. The report indicates that the supply of trained geoscientist will not meet the coming demand. Lamborn asked the panel to expound on their concerns to the cuts in the USGS proposed budget. Price pronounced his concern over the cuts to the mineral program because of its importance as the only program in the U.S. government that tracks what is going on in mineral resource development domestically and internationally.

Holt and Thompson directed hydraulic fracturing comments at the panel. Holt asked if the USGS is the right agency to take on hydraulic fracturing studies. Thorleifson believes that the USGS is the right agency and said the difference between hydraulic fracturing when it first began and now is the wide scope in which hydraulic fracturing is now being used. He said it is being applied on a large scale and in many varying geologic settings. Thompson disagreed with the funding of a study on hydraulic fracturing and he questioned the panel on where this \$13 million could be better spent. Price said the minerals program could use this money because there is little known about the types of rare earth mineral deposits that could be developed. Geissman pointed the subcommittee members to a December 2011 article in EARTH magazine that delved into the rare earth and other mineral deposits of Afghanistan.

-APR

House Committee on Appropriations Subcommittee on Interior, Environment, and Related Agencies Hearing to Discuss the United States Geological Survey Proposed Budget for Fiscal Year 2013

March 6, 2012

Witnesses:

Marcia McNutt

Director, United States Geological Survey

Suzette Kimball

Deputy Director, United States Geological Survey

Carla Burzyk

Director, Office of Budget, Planning, and Integration, United States Geological Survey

Ione Taylor

Associate Director, Office of Energy, Minerals, and Environmental Health, United States Geological Survey

Members Present:

Mike Simpson (R-ID), Chairman

James Moran (D-VA), Ranking Member

Maurice Hinchey (D-NY)

Tom Cole (R-OK)

Betty McCollum (D-MN)

Cynthia Lummis (R-WY)

On March 6, 2012, the House Committee on Appropriations Subcommittee on Interior, Environment, and Related Agencies held a hearing to discuss the proposed budget for the United States Geological Survey (USGS) for fiscal year (FY) 2013. Director of the USGS Marcia McNutt along with the Deputy Director of the USGS Suzette Kimball, Director of the USGS Office of Budget Carla Burzyk, and Associate Director of the Office of Energy Ione Taylor were present to answer questions from the subcommittee. In his proposed budget released February 13, 2012, President Obama proposed \$1.1 billion, a \$34 million increase over FY 2012, for the USGS.

Chairman of the Subcommittee Mike Simpson (R-ID) began his opening statement by telling McNutt, "I want to thank you for sending us an FY 2013 proposal that I think we can work with." Simpson expressed his eagerness to discuss the \$4.8 million and \$4.3 million cuts to the budgets for water programs and the Mineral Resources program. He questioned if the cuts in the Mineral Resources program will hamper the USGS's ability to "collect, report, and analyze data on the supply of minerals critical to the Nation's economic and defense needs." Due to a time conflict Simpson never got the opportunity to question the panel in person, instead opting to submit his questions for the written record.

Ranking Member of the Subcommittee James Moran (D-VA) opened by restating the "unique" purpose of the USGS when he said, "The USGS manages no lands nor does it regulate any activities. What it has been doing since 1879 is to carry out scientific research to advance our knowledge of the world we live in or as the USGS logo states it provides science for a changing world." He expressed his approval of the proposed budget for FY 2013 proclaiming it as a significant improvement from the budget that was proposed for FY 2012. The proposed budget for FY 2012 would have enacted extensive cuts to major programs to make room for Landsat funding. Moran dubbed the action of the Subcommittee as the reason for saving core USGS programs by amending the amount of the FY 2012 budget dedicated to Landsat funding.

McNutt opened by clarifying that the \$34.5 million in increases over FY 2012 would be allocated to new research and development because "modest investments in new science and technologies holds the best hope for addressing the major resource challenges of today and tomorrow." The new research and development funding will be put towards a study of hydraulic fracturing, rapid disaster response, water availability and use, and the restoration of certain targeted landscapes. McNutt said that, as director, her job is to protect the USGS's scientific integrity and ability to deliver scientific information free of any bias. She referenced the recent USGS shale-oil and shale-gas assessment of the North Slope of Alaska as an example of the USGS providing bias free scientific information for the greater good of the country. She closed by listing recent examples of USGS action in looking after the greater good including "discovering the cause of the deadly white nose syndrome in bats to responding to natural hazards such as the 5.8 magnitude earthquake that struck the nation's capitol to historic flooding on the Mississippi River."

Congressmen Tom Cole (R-OK) and Maurice Hinchey (D-NY) both directed comments at McNutt regarding hydraulic fracturing. Cole asked McNutt to elaborate on USGS's role in the joint hydraulic fracturing study with the Environmental Protection Agency (EPA) and the Department of Energy (DOE) and what steps would be taken to coordinate with the other agencies. McNutt responded that a Memorandum of Understanding will be signed by the USGS, DOE, and EPA to protect against agency funding overlap. McNutt said that the USGS will focus on how waste water injection correlates to induced seismicity by investigating geologic formations, regional stresses, and operational parameters. Hinchey inquired how the USGS and Energy Information Administration (EIA) could have such a wide variance in resource estimates of shale-gas in the Marcellus Shale. He said that the 2011 USGS estimate of Marcellus Shale natural gas was one fifth of what the EIA estimated in their 2011 report. The USGS Associate Director of Energy, Minerals, and Environmental Health Ione Taylor responded that the contrast in the estimates is because the USGS and EIA were estimating different types of reserves. The USGS assessment was based on estimates of technologically economical recoverable natural gas reserves. The EIA assessment was based on estimates of natural gas in place without regard to the economic feasibility of extraction. Taylor said this confused the public, thus the EIA and USGS have set up a meeting to work to clarify the difference in these estimates for the public and policy makers. The USGS estimates are based on geology while the EIA estimates are based on projections and statistics.

Congresswoman Cynthia Lummis (R-WY) asked McNutt what the new hydraulic fracturing study on waste water reinjection will add to the knowledge that is already out there. McNutt said they hope to gain a better overall understanding and develop "some ideas of best practices." She said that the USGS hopes to transfer the knowledge that they find to the Bureau of Land Management (BLM), which is currently working on administering a permitting process for federal lands. She hopes that the BLM would use their combined knowledge to identify and regulate the best practices subsequently setting the standard for regulation of waste water injection. McNutt said she believes the findings on induced seismicity from waste water injection will be applicable to geothermal energy. Lummis inquired about the USGS involvement in rare earth minerals. McNutt said the U.S. imports nearly one hundred percent of its rare earth supply from China. She said that the USGS is hoping to use a \$1 million increase in the proposed budget to map rare earth deposits in the U.S. consequently helping to "support a domestic rare earth supply."

**Senate Committee on Appropriations Subcommittee on Interior, Environment, and Related Agencies Hearing on the
Department of the Interior Budget for Fiscal Year 2013**

February 29, 2012

Witnesses

Ken Salazar

Secretary of the Interior

David Hayes

Deputy Secretary, Department of the Interior

Pamela Haze

Deputy Assistant Secretary for Budget, Finance, Performance and Acquisition, Department of the Interior

Subcommittee Members Present

Jack Reed (D-RI), Chair

Lisa Murkowski (R-AK), Ranking Member

Lamar Alexander (R-TN)

Tim Johnson (D-SD)

Susan Collins (R-ME)

Jon Tester (D-MT)

Mary Landrieu (D-LA)

Patrick Leahy (D-VT)

John Hoeven (R-ND)

Committee Members Present

Thad Cochran (R-MS), Ranking Member of Full Committee

The Senate Committee on Appropriations Subcommittee on Interior, Environment, and Related Agencies held a hearing on February 29, 2012 to discuss the President's proposed fiscal year (FY) 2013 budget for the Department of the Interior (DOI).

Chairman Jack Reed (D-RI) opened the hearing by congratulating the committee on a "very good" bipartisan bill for FY 2012. He described the highlights of the budget request and said he was concerned that funds for land acquisition ignored some states. He described a "substantial" increase in science funding including \$13 million for the United States Geological Survey (USGS) for researching hydraulic fracturing. Reed told Salazar he looked forward to hearing a progress report on how new and reorganized DOI agencies including the Bureau of Ocean Energy Management (BOEM), the Bureau of Safety and Environmental Enforcement (BSEE), and the Office of Natural Resources Revenue (ONRR) were performing.

Ranking Member Lisa Murkowski (R-AK) told the committee that DOI needed to improve efficiency and that tough decisions will have to be made. She applauded the full amount of contract costs for the Bureau of Indian Affairs (BIA) but said the proposed budget was "short sighted" in cutting costs in the department's construction accounts while increasing land acquisition funds. Murkowski called it "troubling" to see new fees for mining and oil and gas activities but thanked Salazar for approving Shell's plan for responding to a spill in the Chukchi Sea. She said she remains optimistic that language in last year's appropriations bill, which transfers the regulation of air quality from the Environmental Protection Agency (EPA) to DOI, will eliminate some regulatory uncertainty for Shell.

Salazar described the \$11.5 billion proposed budget for DOI, which contains a \$140.3 million increase and \$516.8 million in reductions and savings. He described it as a "squeeze budget" that "supports responsible domestic energy development...[and] applies science to address the most formidable natural resource challenges." In addition to the "aggressive" stance DOI plans to take on developing offshore energy, Salazar told the committee that it is DOI's goal to have permit over 10,000 megawatts of energy resources onshore by the end of 2012.

Reed began the question and answer period by asking Salazar about delays in developing offshore wind energy in the Northeast. Salazar replied that "Atlantic wind is very important" and that DOI has set up task forces in every state to ensure the permitting and development is moving forward. Senator Susan Collins (R-ME) recommended that offshore wind energy could be developed more effectively through partnerships with states, universities, and industry. Senator Lamar Alexander (R-TN) told Salazar that

wind energy development and permitting should be treated the same as fossil fuel development. He pointed out that BP paid hundreds of thousands of dollars in fines for bird mortalities in connection with the Macondo oil spill while wind energy companies are not held accountable for bird mortalities caused by their turbines, or as Alexander put it, “Cuisinarts in the sky.” Murkowski and others asked Salazar about the \$13 million that would go to USGS to support hydraulic fracturing research. Murkowski wanted assurance that USGS would coordinate with the Department of Energy and the EPA to avoid duplicative work. Salazar confirmed that the three agencies have a “very good working relationship” and all efforts in the research would be coordinated. Senator Jon Tester (D-MT) asked Salazar a series of questions on onshore and offshore drilling safety. Salazar pointed to production in the Gulf of Mexico since the BP oil spill as an example of successfully increasing production and safety regulations. Reed and Tester asked Salazar whether DOI has enough inspectors and if increasing inspectors would lead to better oversight. Last year, a proposed increase in onshore inspection fees to help pay for more inspectors was not successful. Reed and Salazar agreed that fees would be appropriate.

Senator Mary Landrieu (D-LA) said she feels the budget proposal’s allocation to Louisiana is not proportionate to the money added to the U.S. Treasury as a result of oil and gas production in the Gulf of Mexico. She pointed out that the amount of money collected in severance tax from oil and gas in the past year was \$1 billion more than the entire DOI budget proposal. She told Salazar and Reed, “I don’t know how long this committee expects me to be a cooperative member” and threatened to stop funding for other programs unless the budget increases funding for programs in Louisiana.

Senator Patrick Leahy (D-VT) thanked Salazar for providing money to the USGS to research white-nose syndrome. White-nose syndrome has been responsible for the deaths of millions of bats in the eastern United States including Vermont. Leahy pointed out that USGS stream gages provided critical information that saved lives during the floods of Hurricane Irene in August, 2011. Senator John Hoeven (R-ND) talked with Salazar about the administration’s proposed Stream Buffer Zone rule. He asked why it is being implemented in North Dakota if it was designed for the Appalachians. He complained that the rule would require tougher reclamation procedures because it provides a broader definition of streams and damages. Salazar said the proposed rule needs to be a “workable rule” and assured Hoeven that the rule will not be a “one size fits all” approach and has not been implemented. Murkowski and Salazar finished the hearing discussing hyperspectral imaging and the Obama Administration’s suggestion of moving the National Oceanic and Atmospheric Administration (NOAA) from the Department of Commerce into DOI. After Murkowski asked him how the President expects to move NOAA, Salazar said, “We are not at this point looking at it until we get the authority from Congress to move forward.” Murkowski then asked why the United States has paid for 96% of Afghanistan to be mapped for mineral resources with hyperspectral imaging while the same technology has only been used on 5% of the U.S. She asked, “Do we know whether in this budget we have sufficient funding to start focusing on U.S. mapping?” Salazar said, “I take your comment seriously” and promised that he would talk with USGS Director Marcia McNutt and Bureau of Land Management Director Bob Abbey about mapping states’ mineral resources with hyperspectral imaging. Murkowski added, “I recommend you start alphabetically.”

-WMB

**House Committee on Appropriations Subcommittee on Interior, Environment, and Related Agencies Hearing on the
Department of the Interior Budget for Fiscal Year 2013**

February 16, 2012

Witnesses:

Ken Salazar

Secretary, Department of the Interior

David Hayes

Deputy Secretary, Department of the Interior

Pamela Haze

Deputy Assistant Secretary for Budget, Finance, Performance and Acquisition, Department of the Interior

Subcommittee Members Present:

Mike Simpson (R-ID), Chairman

Jim Moran (D-VA), Ranking Member

Jerry Lewis (R-CA)

Betty McCollum (D-MN)

Ken Calvert (R-CA)

Maurice Hinchey (D-NY)

Steven LaTourette (R-OH)

Tom Cole (R-OK)

Jeff Flake (R-AZ)

Cynthia Lummis (R-WY)

Committee Members Present:

Hal Rogers (R-KY), Chairman

Norm Dicks (D-WA), Ranking Member

On February 16, 2012, the House Committee on Appropriations Subcommittee on Interior, Environment, and Related Agencies held a hearing to discuss the Department of the Interior (DOI) proposed budget for fiscal year (FY) 2013.

In his opening statement, Subcommittee Chairman Mike Simpson (R-ID) criticized the allocation of “hazardous fuel dollars” within funds for the prevention of wildfires. He felt that the proportion of funds spent towards protecting the wild land urban interface were disproportional to the size of the wild land urban interface. Simpson did not agree with the increase in funding for the Bureau of Ocean Energy Management (BOEM) and the Bureau of Safety and Environmental Enforcement (BSEE). He commended DOI for their work opening up oil and gas permits on federal land, but emphasized the need to continue to open up more land.

Ranking member of the subcommittee Jim Moran (D-VA) opened by commending DOI for the withdrawal of uranium mining permits for one million acres of federal land near the Grand Canyon. Moran noted that the Obama Administration has opened more federal land to oil and gas exploration than the Bush Administration. He praised the Obama Administration’s overarching energy plan when he said, “I also appreciate Mr. Secretary that you and the President recognize that as a finite and depleting resource, oil and gas are not the long-term future for America's energy needs.”

Full Committee Chairman Hal Rogers (R-KY) opened by stating his disappointment of the lack of a movement towards energy independence. In addressing this disappointment he said, “Many components of this budget request merely reflect this Administration’s political posturing and alarming misunderstanding of our country’s energy needs.” He criticized the Obama Administration for failing to lower energy and fuel prices in a time of weak economic recovery. His four main criticisms were the rejection of the Keystone XL pipeline, intervention by the Environmental Protection Agency (EPA) in the coal and natural gas industry, a waste of tax payer money on failed companies like Solyndra, and the prevention of outer continental shelf (OCS) exploration.

In his opening statement ranking member of the full committee Norm Dicks (D-WA) called the FY 2013 budget proposal “a responsible proposal.” Dicks applauded the proposed increase in funding for the Land and Water Conservation Fund as well as the Americas Great Outdoors Initiative. He praised DOI’s push for hydraulic fracturing regulations that would address concerns over “health and environmental threats.” Dicks said he believes this budget proposal should put to rest the false claims that the Obama Administration is not working to open more federal lands to oil and gas exploration.

In his opening statement, Secretary of the Interior Ken Salazar referred to the FY 2013 budget as a “squeeze-budget with tough choices and with painful cuts” and said there will be a push by DOI to do more with less. He said the budget outlined will create more jobs through conventional and renewable energy. Salazar said cuts will come in the termination and downsizing of certain programs, like the Office of National Heritage Areas, that will total \$517 million. Salazar said he expects job creation from budget investments in water infrastructure, which already supports 416,000 jobs.

During the question and answer period Congressmen Jerry Lewis (R-CA) and Ken Calvert (R-CA) proposed questions related to water. Lewis asked how DOI will broach the issue in southern California where there is a struggle over maintaining water resources for the citizens of southern California and protecting the habitat of the threatened Santa Ana Sucker. Deputy Secretary of the Interior David Hayes assured Lewis that DOI has coequal goals of developing a restoration plan for the Santa Ana Sucker and ensuring a water supply for the people of southern California. Hayes said that DOI is facing many lawsuits from both sides and he offered to meet with Lewis’s staff to discuss their point of view on the issue. Calvert inquired about the status of the legal challenges associated with the Quantification Settlement Agreement (QSA) on the Colorado River. The QSA requires California to limit its dependence on Colorado River water to 4.4 million acre feet, which forces California to implement unique strategies in water efficiency. Hayes was not aware of the current concerns on the litigation front but pledged to defend the QSA. Calvert suggested a water swap agreement where Nevada would fund desalination plants along the coast and southern California would grant Nevada an equal portion of their Colorado River water rights. Salazar said desalination efforts are a viable option and there has been and will continue to be desalination efforts.

Congresswoman Cynthia Lummis (R-WY) along with Congressmen Maurice Hinchey (D-NY) and Steven LaTourette (R-OH) directed questions to Salazar on hydraulic fracturing. LaTourette talked about a meeting he had recently with Marcia McNutt, Director of the United States Geological Survey (USGS), where she stated that less than one percent of the 144,000 hydraulic

fracturing well sites are raising concerns over drinking water contamination. LaTourette said that this gets misconstrued with the public and “urban legends” begin to form. Salazar agreed and went on to say that when contamination does occur it is through flow back water or poor well integrity. Salazar said that public concern stems from the mystery surrounding what chemicals are being injected into the ground, thus it is the goal at DOI to get disclosure of these chemicals. Hinchey praised DOI for their efforts to mandate uniform regulations for hydraulic fracturing and inquired when these regulations will be released. Salazar said that DOI has taken their time coming out with the regulations because they want to ensure that a thorough job is done including receiving input from people directly tied to the issue. He said that the proposed regulations should be out within a couple of weeks. Salazar cautioned that if hydraulic fracturing is not regulated it will become the “Achilles heel” of the industry. Lummis asked Salazar why DOI is pushing for a set of national regulations when she has heard from “many of the leading companies” that they prefer state regulations. Salazar retorted that he has spoken to companies that dislike the present system of differing regulations from state to state.

-APR

House Natural Resources Committee Hearing on “Department of the Interior Spending and the President’s Fiscal Year 2013 Budget Proposal”

February 15, 2012

Witnesses:

Ken Salazar

Secretary, Department of the Interior

David J. Hayes

Deputy Secretary, Department of the Interior

Pamela K. Haze

Deputy Assistant Secretary, Budget, Finance, Performance and Acquisition,
Department of the Interior

Members Present:

Doc Hastings (R-WA), Chairman

Edward Markey (D-MA), Ranking Member

Don Young (R-AK)

Dale Kildee (D-MI)

Louie Gohmert (R-TX)

Rob Bishop (R-UT)

Eni Faleomavaega (D-AS)

Doug Lamborn (R-CO)

Grace Napolitano (D-CA)

Paul Broun (R-GA)

John Fleming (R-LA)

Raul Grijalva (D-AZ)

Madeleine Bordallo (D-GU)

Jim Costa (D-CA)

Gregorio Kilili Camacho Sablan (D-MP)

John Sarbanes (D-MD)

Ben Ray Lujan (D-NM)

John Garamendi (D-CA)

Glenn Thompson (R-PA)

Jeff Denham (R-CA)

Jeff Duncan (R-SC)

Scott Tipton (R-CO)

Andy Harris (R-MD)

Bill Johnson (R-OH)

Paul Gosar (R-AZ)

Bill Flores (R-TX)

Jeff Landry (R-LA)

On February 15, 2012, the House Natural Resources Committee held a hearing to review the “President’s Fiscal Year 2013 Budget Proposal for the Department of the Interior.” Department of the Interior (DOI) Secretary Ken Salazar answered questions from the committee on the proposed DOI budget for fiscal year (FY) 2013. President Obama released his proposed budget for FY 2013 on February 13, 2012.

Chairman Doc Hastings (R-WA) opened by pronouncing his disapproval of the Obama Administration's budget proposal for FY 2013. Hastings said he does not approve of a budget deficit of over \$1 trillion for the fourth consecutive year. He said he does not understand why the DOI budget has set aside so much money for the purchasing of federal land, when the government cannot even maintain the land it already owns. Hastings dislikes the proposed taxes and fees on American energy production hailing it as “one of the best job-creators and economic boosters in our country.” The chairman expressed further discontent over the potential loss of American jobs through coal regulations, hydraulic fracturing regulations, and the reinstating of a 2008 moratorium on offshore drilling.

Ranking Member Edward Markey (D-MA) opened by stating that the Obama Administration is fostering the highest domestic energy production in decades. He pointed out that by this summer there will be 30 percent more floating oil rigs operating in the Gulf of Mexico than before the Deepwater Horizon oil spill. He questioned why industry is pushing for more drilling of federal lands when there are currently 7,000 approved unfilled permits available for on shore drilling. Markey criticized the House Republicans for trying to eliminate the solar energy industry. The ranking member criticized the House Republicans backed American Energy and Infrastructure Jobs Act (H.R.7) as a “give away to big oil.” The funding of the bill would come from increased offshore and arctic drilling. Markey believes revenues would fall tremendously short of GOP expectations. Markey said, “It turns out simply creating more drill holes won’t eliminate our nations potholes” regarding the House Republicans plan to fund the transportation bill.

In his opening statement, Secretary of the Interior Ken Salazar referred to the FY 2013 budget as a “squeeze-budget with tough choices and with painful cuts” and said there will be a push by DOI to do more with less. He said the budget outlined will create more jobs through conventional and renewable energy. Salazar said cuts will come in the termination and downsizing of certain programs, like the Office of National Heritage Areas, that will total \$517 million. Salazar said he expects job creation from budget investments in water infrastructure, which already supports 416,000 jobs.

Hastings began the question and answer period by stating that the DOI along with the National Oceanic and Atmospheric Administration (NOAA) spend countless hours annually undertaking lawsuits related to the Endangered Species Act (P.L. 93-205). He questioned Salazar about whether DOI documents the money spent on litigation. Salazar responded that he is unsure how much money is spent on these lawsuits and that he believes there are more efficient ways to handle the Endangered Species Act to avoid these lawsuits. Salazar assured Hastings that in the future DOI will work more cooperatively and transparently with the House of Representatives to provide them with requested documentation.

Markey asked Salazar if he believes offshore and Arctic drilling could fund the American Energy and Infrastructure Jobs Act with what he referred to as “phantom revenues.” Salazar responded by saying that DOI is moving forward with a five year plan to develop the outer continental shelf (OCS) which will open up 75 percent of known offshore oil and gas reserves, and this would only account for less than 10 percent of the required revenue.

Congressmen Louie Gohmert (R-TX) and Eni Faleomavaega (D-AS) both questioned Salazar on what DOI is doing to prevent offshore oil spills. Salazar stated that DOI has overhauled oil and gas drilling oversight to ensure that another oil spill is averted. DOI has pledged \$44 million to the Bureau of Safety and Environmental Enforcement (BSEE) and hired an additional 30 inspectors. DOI is looking into remote monitoring of oil and gas wells, which will add to the overall safety of offshore drilling. Salazar said with regards to oversight and regulations, “we [the United States] have created the leading agency for oversight not only in the United States but around the world.”

Congressmen Rob Bishop (R-UT) and Doug Lamborn (R-CO) both directed questions about oil shale at Salazar. They asked why the DOI budget removed thousands of acres of land for oil shale leasing. Salazar responded that there is not a proven feasible technology in place to commercially extract the kerogens locked in the oil shale while protecting the water resources of Utah, Colorado, and Wyoming. He said that oil shale development could require millions of cubic feet of water, and in parched areas like Colorado, Utah, and Wyoming he is unsure if this amount of water is readily available. Bishop and Lamborn pointed to oil shale development in the countries of Estonia and Georgia where technologies have been developed that involve mining but do not require large amounts of water. These technologies involve what Lamborn referred to as “mining and retort” of the oil shale in situ or ex situ followed by subsequent heating. Salazar pointed out that this kind of technology using mining and retort has been attempted in western Colorado in the 1980s and was funded with billions of dollars and subsequently failed.

Congressmen Raul Grijalva (D-AZ), John Fleming (R-LA), John Duncan (R-TN), Scott Tipton (R-CO), and John Sarbanes (D-

MD) all asked about hydraulic fracturing. Duncan inquired why the budget outlined \$13 million in support of hydraulic fracturing and then contradictorily budgeted \$5 million in addressing concerns over hydraulic fracturing. Salazar explained, as he did several times throughout the hearing, that DOI supports hydraulic fracturing, while at the same time it is the duty of DOI to make the American people feel safe. Tipton asked Salazar if DOI has reached out to the states regarding their individual regulations. Salazar responded by saying that there has been tremendous outreach to individual states like North Dakota and Colorado, but he feels that it is DOI's job to consider federal regulations on hydraulic fracturing. Salazar said that many companies undertake hydraulic fracturing campaigns in many different states and they would prefer one set of federal regulations rather than regulations that vary from state to state. Fleming asked Salazar whether he felt DOI or industry had more expertise in hydraulic fracturing. Salazar acknowledged that industry does have expertise in hydraulic fracturing, but that hydraulic fracturing technology came about from the United States Geological Survey (USGS) and the Department of Energy (DOE) working with industry. Grijalva and Sarbanes inquired about the disclosure of the chemicals involved with hydraulic fracturing. Salazar said he is in support of the disclosure of hydraulic fracturing chemicals, but industry considers the chemicals a proprietary part of their businesses. According to Salazar, the public disclosure of these chemicals is what is holding back the hydraulic fracturing industry. Once the secrecy is taken away from these chemicals this "achilles heel" of hydraulic fracturing will disappear.

-APR

Sources: Department of Interior budget documents; USGS budget documents; National Park Service budget documents; U.S. Forest Service budget documents; White House Office of Management and Budget; Library of Congress Congressional Record web site; hearing testimony.

Please send any comments or requests for information to AGI Geoscience Policy at govt@agiweb.org.

Contributed by Linda Rowan and Wilson Bonner, AGI Geoscience Policy Staff, and Aaron Rodriguez, AGI/AAPG Spring 2012 Intern.

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