

# ARKANSAS GEOLOGICAL SURVEY

## Enabling Laws

Act 1215 of 2007

A.C.A. §15-5-201, et seq.

A.C.A. §15-55-208, et seq.

## History and Organization

The first geologic surveys made from State-appropriated funds go back to 1857-60. A second survey was made from 1871-74. In 1881, the Geological Survey of Arkansas was established under the direction of Dr. John C. Branner and lasted until 1893. During this period, Herbert Clark Hoover, who later became President of the United States, assisted Dr. Branner. For the next 30 years, the Department of Geology conducted a few geologic surveys at the University of Arkansas. In 1923 the Geological Survey of Arkansas was once again established by Act 573 of 1923 under the direction of George C. Branner, the son of John Branner. In 1945, reorganization changed the agency name to the Arkansas Resources and Development Commission, Division of Geology, under the direction of Harold B. Foxhall. From 1951 to 1995 Norman F. Williams was Director and State Geologist. Reorganization in 1955 established the agency as the Arkansas Geological and Conservation Commission. Act 16 of 1963 changed the name of the organization to the Arkansas Geological Commission. In 1995, William V. Bush became Director and State Geologist. In 2003, Mac B. Woodward was appointed Director and State Geologist. In January 2005 Bekki White was appointed Director and State Geologist. Act 129 of 2007 changed the agency name back to Arkansas Geological Survey.

The Arkansas Geological Survey (AGS) is organized into three sections: Administrative Services, Information Services, and Geological Services, all of which are under the direct supervision of the State Geologist. The mission of the Arkansas Geological Survey is to increase the knowledge of the geology of the State, to stimulate the orderly development and utilization of the State's mineral, water, and fossil fuel resources, while protecting the environment.

The Administrative Services Section consists of fiscal services, human resources and support personnel services. This section provides all the administrative support for the agency.

The Information Services Section's primary function is the distribution of information prepared and maintained by the Geological Services Section. This is accomplished through three offices: Map and Publication Sales, Geological Library, and Network & Computer Services.

The Geological Services Section is composed of the geologic staff and technical support personnel. Its primary responsibilities are: 1) to search for and provide information on the State's mineral, fossil-fuel (coal, oil and gas), and water resources; 2) to encourage the orderly development of these resources; 3) to maintain current geologic map coverage of the State; and 4) to study and report on the geologic factors affecting the State's environment.

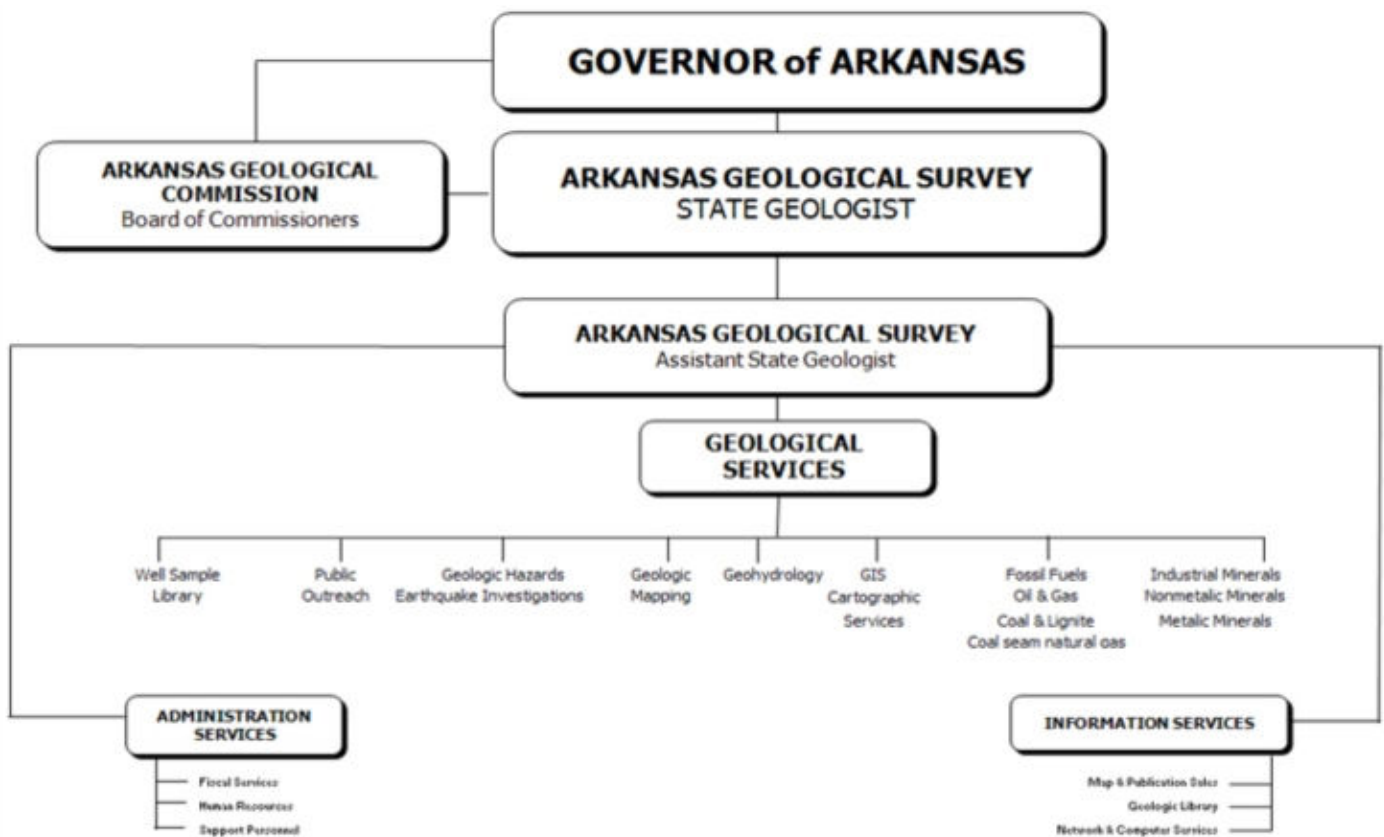
Geological Services is divided into six major activities: Fossil Fuels (oil & gas, lignites & coals); Geohazards (earthquakes, landslides, karst); Minerals (Industrial, metallic, non-metallic); Hydrology; Geologic Mapping (surface, subsurface); and Public Outreach (Outreach efforts such as the Geology

Learning Center fall under this Section but is not an official office).

The Geological Support Group consists of GIS/Cartographic Services and Well Sample Library and Core Repository.

In addition to the major activities in the Geological Services Section, the Agency has several cooperative projects with the US Geological Survey (USGS). The AGS has three cooperative programs with the Water Resources Division of the USGS: Groundwater Survey Program, Stream Gauging Program (surface water), and Water Quality Program. Each of these is a 50-50 cooperative program in which the costs are split, but with the majority of the work being done by USGS personnel using their equipment and facilities. These programs provide base-line water data to the public and other users of water data needed in management and protection activities. The selection of sample sites is coordinated with other government agencies that collect water data, in order to eliminate duplication and establish site selection priorities in strategic areas for the public welfare.

In May 2008 a donation by the State Farm Insurance Group enabled the formation of an Earthquake Education and Outreach Program which enhances our geohazards section. This program will conduct a series of town hall meetings across the state to present "Earthquake 101"; an educational program designed for the citizen/layman.



## **Agency Commentary**

The Arkansas Geological Survey (AGS) was created by Act 16 of 1963. Agency activities are divided into three major sections: 1) Administrative Services, 2) Geology Services, and 3) Information Services. The activities are primarily supported by General Revenue Funds, except Map and Publication Sales which operate on a revolving cash fund, the Geology Learning Center, which is funded by donations. There are several federally grant funded programs which include the State Geological Mapping Program

(STATEMAP) and National Coal Resources Data System (NCRDS) which operate under miscellaneous federal grants. In May 2008 a donation by the State Farm Insurance Group enabled the formation of an Earthquake Education and Outreach Program. This program will conduct a series of town hall meetings across the state to present "Earthquake 101"; an educational program designed for the citizen/layman. The Arkansas Geological Survey participates in cooperative (matching at 50/50) water programs with the United States Geological Survey.

**The Administrative Services Section** supports the AGS with fiscal services, human resources and personnel services. This section provides all the administrative support for the agency as well as physical plant and vehicle maintenance.

A reallocation from Professional Services to Maintenance and Operations is requested. Professional services in the amount of \$7,500 are no longer needed for IT services. This amount will be used to offset increases in electricity, office supplies and janitorial expenses.

**The Technical Services Section** is composed of the geologic staff and technical support personnel. Its primary responsibilities are: 1) to search for and provide information on the State's mineral, fossil-fuel, and water resources; 2) to encourage the orderly development of these resources; 3) to maintain current geologic map coverage of the State; and 4) to study and report on the geologic factors affecting the State's environment.

Geological Services is divided into six major activities: Fossil Fuels (oil & gas, lignites & coals); Geohazards (earthquakes, landslides, karst); Minerals (Industrial, metallic, non-metallic); Hydrology; Geologic Mapping (surface, subsurface); and Public Outreach (Outreach efforts such as the Geology Learning Center fall under this Section but is not an official program).

Current geologic map coverage of the State is maintained and other geologic studies are conducted as needed. The geologic information compiled and maintained for these investigations is necessary for exploration, development, planning and protection for the mineral resources base of Arkansas and as the framework for numerous environmental studies. A technical support group assists the geologic staff in collecting, evaluating and preparing geologic data.

A GIS Analyst is needed to keep up with the public's increasing demand for geologic information pertaining to such issues as geohazards (earthquakes and landslides); oil and gas (conventional and unconventional, such as Fayetteville Shale); alternative fuel sources (lignites and coals) and water and mineral resources. Currently the AGS has a large volume of geologic data that is under utilized and waiting to be developed into GIS-derived geologic mapping and modeled products that better locate and delineate potential resources for development. Therefore, the Arkansas Geological Survey requests the position of GIS Analyst, salary of \$43,217 and applicable matching.

The Arkansas Education Department mandating the inclusion of Earth Science in the curriculum for K-12 has prompted an increased demand from the Arkansas educational community for AGS geological information resources. The AGS would like to request funding to operate an Earth Science Educational Outreach Program designed for K-12 students and other groups (civic, scouts, etc.).

Some of the educational outreach activities that are requested by the citizens and educators include:

- Numerous educational presentations to school and civic groups across the state;
- Participating in events such as the Arkansas Curriculum Conference (formerly Arkansas Teacher's Conference)

- Providing booths at various venues for Earth Science Week, Earth Day, GIS Day and other special events;
- Teacher requests for earth science classroom sets and rock packets;
- Request for AGS to provide teacher workshops during the summer months for various Educational Cooperatives and school districts in the state. The workshops follow the K-12 Earth Science Educational Curriculum with a lab manual prepared by the geologist in the requested position;
- Participation in the Arkansas Supporting Teachers Research Involvement for Vital Education (STRIVE) Program.

There is a strong need for a staff geologist to perform services and oversee a program targeted to the educational needs of our K-12 citizens. Therefore, the Arkansas Geological Survey requests the position of Professional Geologist. The requested salary is \$39,199 and applicable matching. Also requested for both years of the biennium is \$11,635 to cover program costs. Those include: production of Teacher Training Workshop lab manuals; STRIVE program costs; and Educational Outreach Program products costs.

**The Information Services Section's** primary functions are preparation, storage and distribution of data, reports, and maps prepared and maintained by the Geological Services Section. This is accomplished through the Map and Publication Sales Office, Geological Library, and Network and Computer Services. With the increasing demand for maps in digital format, we are, in an orderly fashion, digitizing the geology of Arkansas.

The Arkansas Geological Survey is the repository of geologic and mineral information collected for more than 150 years. Most of this information is in a paper format. A data archival system needs to be established to provide for the storage, preservation, and archival of subsurface and surface geological data, samples and publications. This information would then provide a "catalogue" of AGS information that would be easily accessible. The purpose of this program is to insure that this data is preserved for future generations of Arkansas citizens. The position of AGS Specialist is requested to provide this service. The requested Salary of \$26,531 and applicable matching.

**Information Technology** - The following requests are made to enable the agency to continue to provide geologic and natural resource information to the public and other government agencies in an electronic format. The scheduled replacement of four computers per year (allows a minimum of five years life expectancy per computer) requires an increase of \$10,000 for each year of the biennium. A request for \$14,800 is made to upgrade Office software to a more current version. Also critical is the replacement of a 2003 server with an estimated cost of \$6,200. A capital request is made for this replacement. A request in the amount of \$8,100 is also made for computers and printers, \$3,300 software for the three requested positions along with \$1,200 in FY10 and \$800 in FY11 for regularly scheduled maintenance on the computer systems. These increases will be required in Maintenance and Operations. These requests are part of the technology needs based on the agency Information Technology Plan.

The AGS has three **Cooperative Programs with the U.S. Geological Survey** (USGS) Water Resources Division. These cooperative programs with the U.S. Geological Survey's Water Resources Division include 1) Stream Gauging Program (surface water), 2) Water Quality Program, and 3) Ground Water Survey. These programs provide for collection, evaluation and development of data relating to the State's surface and ground water resources. Information from these programs is important to the development and protection of the State's water supply and is critical to the agencies that regulate and manage the State's water resources. Specifically, these funds are used to collect and analyze surface and

ground water samples (Water Quality Program); installation and monitoring of continuous-record stream gauging stations (Stream Gauging Program); and research in subsurface geology relating to ground water (Ground Water Survey). The Ground Water Survey will include regular water-level measurements of wells in the critical Sparta Aquifer in south Arkansas and the Quaternary Aquifer in east Arkansas. An increase in the amount of \$6,373 is requested to restore appropriation and funding to the Ground Water Program. This amount was blocked in FY09 to cover salary increases.

**Map Resale** - The Map Resale appropriation provides for the authorization to operate from a revolving cash fund, using a portion of the money collected from the sale of maps, publications and reproduction charges. There is no request for appropriation beyond base level.

**STATEMAP - State Geologic Mapping Program**-The funds for STATEMAP (State Geologic Mapping Program) are federal funds (USGS) which pay for the salary of one field geologist and an extra help position to conduct geologic field studies and mapping in Arkansas. The program involves the geologic mapping of areas of the state selected by the Commission. This is a cooperative effort between the AGS and the USGS and is part of the National Geologic Mapping effort to standardize the quality of geologic mapping in the United States. This project will aid in the development and management of the mineral resources of the area and greatly expand the knowledge of the geology of the State. An increase to \$168,000 for each year is requested due to expectations based on FY2009 grant award.

**The National Coal Resources Data Program Grant** with the USGS will continue through both years of the biennium. We request an increase of \$35,000 for both years of the biennium

**DOI-US Geological Survey-National Geological & Geophysical Data Preservation Program** is expected during the biennium as a grant award for \$78,000 for each year. This request includes a position of AGS Specialist. The Arkansas Geological Survey presently stores more than 15 million feet of core and well cuttings representing more than 5,100 wells from within the state of Arkansas at the Norman F. Williams Well Sample Library (referred from this point forward as the NFW Repository). The purpose of this project is to inventory the NFW Repository and create a database compatible with the National Catalogue. This is the only public repository for well core and cuttings samples in the state. Recent analyses of well cuttings and core from this repository have been instrumental in activities surrounding the Fayetteville Shale gas play, and ground water studies in the northern portion of the state. Currently, well cuttings and core are being examined for co-operative studies with private industry for the south and west-central regions of the state for the possibility of further development of fossil fuel resources. An up-to-date inventory, a compatible database with unique metadata and sample location map would further aid and expedite research activities.

**The National Park Service (NPS)** grant provides funds for geologic mapping of three parks in Arkansas (Hot Springs National Park, Buffalo National River, and Arkansas Post National Memorial). This grant will produce a digital geologic map, defined as a map that depicts the geographic distribution at the Earth's surface of bedrock and/or surficial geologic materials and structures, on a published base map showing topography, hydrography, culture, cadastral, and other base information. Appropriation in the amount of \$230,000 for each year of the biennium is requested. This amount includes a request for a Professional Geologist.

**State Farm Grant Program**- State Farm Insurance Group has granted AGS \$36,000 to start up the Earthquake Research and Outreach Program. This program will provide the residents of Arkansas with pertinent information about earthquakes and the risks associated with the New Madrid Seismic Zone.

**Museum Expenses (Geology Learning Center) - Cash**

This appropriation provides for the authorization to spend money donated to the AGS Geology Learning Center (GLC). The GLC is part of the educational arm of the agency with the purpose of giving student and citizens of all ages' exposure to rocks, minerals, fossils, and fossil fuels. The GLC has 5 display areas and receives funding and exhibit material from donations. There are no priority requests for this appropriation above base level.

**Audit Findings**

DIVISION OF LEGISLATIVE AUDIT  
 AUDIT OF :  
 ARKANSAS GEOLOGICAL COMMISSION  
  
 FOR THE YEAR ENDED JUNE 30, 2006

Findings	Recommendations
None	None

**Employment Summary**

	Male	Female	Total	%
White Employees	14	9	23	92 %
Black Employees	0	1	1	4 %
Other Racial Minorities	1	0	1	4 %
Total Minorities			2	8 %
Total Employees			25	100 %

**Publications**

**A.C.A. 25-1-204**

Name	Statutory Authorization	Required for		# of Copies	Reason(s) for Continued Publication and Distribution
		Governor	General Assembly		
None	N/A	N	N	0	N/A

## Department Appropriation Summary

### Historical Data

### Agency Request and Executive Recommendation

Appropriation	2007-2008		2008-2009		2008-2009		2009-2010					2010-2011						
	Actual	Pos	Budget	Pos	Authorized	Pos	Base Level	Pos	Agency	Pos	Executive	Pos	Base Level	Pos	Agency	Pos	Executive	Pos
166 State Operations	1,661,155	24	1,717,739	24	1,716,297	24	1,795,333	24	2,003,313	27	2,003,313	27	1,824,259	24	2,003,060	27	2,003,060	27
169 Map Resale	31,013	0	100,000	0	100,000	0	100,000	0	100,000	0	100,000	0	100,000	0	100,000	0	100,000	0
210 State Geologic Mapping Program	84,248	1	91,101	1	65,719	1	82,854	1	1,110,854	3	1,110,854	3	84,066	1	1,112,066	3	1,112,066	3
54U State Farm Grant	1,097	0	36,000	0	0	0	0	0	36,000	0	36,000	0	0	0	36,000	0	36,000	0
873 Geology Museum	0	0	9,025	0	9,025	0	9,025	0	9,025	0	9,025	0	9,025	0	9,025	0	9,025	0
<b>Total</b>	<b>1,777,513</b>	<b>25</b>	<b>1,953,865</b>	<b>25</b>	<b>1,891,041</b>	<b>25</b>	<b>1,987,212</b>	<b>25</b>	<b>3,259,192</b>	<b>30</b>	<b>3,259,192</b>	<b>30</b>	<b>2,017,350</b>	<b>25</b>	<b>3,260,151</b>	<b>30</b>	<b>3,260,151</b>	<b>30</b>

Funding Sources		%		%		%		%		%		%		%		%	
Fund Balance	4000005	46,075	2.5	62,930	3.1			62,930	3.1	62,930	1.9	62,930	1.9	62,930	3.0	62,930	1.9
General Revenue	4000010	1,661,155	90.3	1,706,518	84.6			1,795,333	87.6	2,003,313	60.3	2,003,313	60.3	1,824,259	87.7	2,003,060	60.3
Federal Revenue	4000020	84,248	4.6	91,101	4.5			82,854	4.0	610,854	18.4	610,854	18.4	84,066	4.0	612,066	18.4
Non-Revenue Receipts	4000040	38,892	2.1	100,000	5.0			100,000	4.9	100,000	3.0	100,000	3.0	100,000	4.8	100,000	3.0
Cash Fund	4000045	10,041	0.5	45,025	2.2			9,025	0.4	45,025	1.4	45,025	1.4	9,025	0.4	45,025	1.4
Merit Adjustment Fund	4000055	0	0.0	11,221	0.6			0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Interest Income / Royalties	4000307	32	0.0	0	0.0			0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Unfunded Appropriation	4000715	0	0.0	0	0.0			0	0.0	500,000	15.1	500,000	15.1	0	0.0	500,000	15.0
<b>Total Funds</b>		<b>1,840,443</b>	<b>100.0</b>	<b>2,016,795</b>	<b>100.0</b>			<b>2,050,142</b>	<b>100.0</b>	<b>3,322,122</b>	<b>100.0</b>	<b>3,322,122</b>	<b>100.0</b>	<b>2,080,280</b>	<b>100.0</b>	<b>3,323,081</b>	<b>100.0</b>
Excess Appropriation/(Funding)		(62,930)		(62,930)				(62,930)		(62,930)		(62,930)		(62,930)		(62,930)	
<b>Grand Total</b>		<b>1,777,513</b>		<b>1,953,865</b>				<b>1,987,212</b>		<b>3,259,192</b>		<b>3,259,192</b>		<b>2,017,350</b>		<b>3,260,151</b>	

The Budget amount exceeds the Authorized amount in Fund Center 166 due to salary and matching rate adjustments during the 2007-2009 biennium.

Actual and Budget amounts exceed Authorized amounts in Fund Center 210 due to the establishment of a Miscellaneous Federal Grant.

Actual and Budget amounts exceed Authorized Appropriation in Fund Center 54U due to a transfer from the Cash Fund Holding Account.

## Agency Position Usage Report

FY2006 - 2007						FY2007 - 2008						FY2008 - 2009					
Authorized in Act	Budgeted			Unbudgeted	% of Authorized Unused	Authorized in Act	Budgeted			Unbudgeted	% of Authorized Unused	Authorized in Act	Budgeted			Unbudgeted	% of Authorized Unused
	Filled	Unfilled	Total	Total			Filled	Unfilled	Total	Total			Filled	Unfilled	Total	Total	
22	21	1	22	0	4.55 %	25	25	0	25	0	0.00 %	25	25	0	25	0	0.00 %



## **Analysis of Budget Request**

**Appropriation:** 166 - State Operations

**Funding Sources:** HUA - Miscellaneous Agencies Fund

The Arkansas Geological Survey's (AGS) appropriation for State Operations is funded entirely by general revenue. In this program, data is accumulated, analyzed, and disseminated to provide knowledge of the geology and hydrogeology of the State to stimulate orderly development and encourage effective management and utilization of the State's mineral, fossil fuel, and water resources in an environmentally responsible manner.

Base Level salaries for classified positions reflect the recommendations of the Pay Plan Study and unclassified positions reflect similar adjustments in line item salaries. A 2.3% Cost of Living Allowance is reflected in the second year of the biennium. The Base Level request for Regular Salaries may include board member Stipend payments and Career Service payments for eligible employees. Personal Services Matching includes a \$75 increase in the monthly contribution for State employee's health insurance for a total State match per budgeted employee of \$425.

The Base Level request for the Agency's State Operations is \$1,795,333 for FY10 and \$1,824,259 in FY11. The Agency requests a \$207,980 increase over Base Level in FY10 and a \$178,801 increase in FY11. The increase includes:

- a new Educational Outreach Program- The program will allow more interaction between AGS and the Department of Education to improve the quality of earth science education throughout the State. A Professional Geologist position with a salary of \$39,199 in FY10 and \$40,100 in FY11 along with corresponding matching is included in this request. The costs to provide teacher manuals, STRIVE program costs include a teacher stipend of \$2,400 along with educational materials and fuel in the amount of \$9,235.
- a Geographic Information Systems (GIS) Analyst- Due to the increase in activity in and around the Fayetteville shale along with New Madrid fault concerns and alternative fuel research, AGS is dealing with more public demand for geologic information. This new position will allow the Agency to better serve the citizens of the State through disseminating large quantities of information much more quickly. The salary for this position is \$43,217 in FY10 and \$44,210 in FY11 along with corresponding matching.
- various Information Technology (IT) requests (all included in the Agency's IT Plan)- A replacement for a 6 year old server (\$6,200 in FY10), software updates for the entire Agency including new positions (\$18,700 in FY10), replacement of 4 workstations per year (\$10,000 in FY10 and FY11), 3 new workstations and printers for requested positions (\$6,900 in FY10), and scheduled maintenance on computers (\$1,200 in FY10 and \$800 in FY11).
- an AGS Specialist is requested to assist in the AGS Data Preservation Program. This position involves a salary of \$26,531 in FY10 and \$27,141 in FY11 along with corresponding matching.
- a restoration of appropriation and funding in the amount of \$6,373 is requested to fully fund the Ground Water Survey Program.
- a \$7,500 reallocation from Professional Fees into Operating Expenses. The acquisition of a full time IT employee eliminated the need for external IT services. This appropriation will be used to provide for increases in electricity, office supply, and janitorial expenses.

The Executive Recommendation provides for the Agency Request with General Revenue funding.

## Appropriation Summary

**Appropriation:** 166 - State Operations  
**Funding Sources:** HUA - Miscellaneous Agencies Fund

### Historical Data

### Agency Request and Executive Recommendation

Commitment Item		Historical Data			2009-2010			2010-2011		
		2007-2008 Actual	2008-2009 Budget	2008-2009 Authorized	Base Level	Agency	Executive	Base Level	Agency	Executive
Regular Salaries	5010000	1,041,523	1,075,373	1,073,028	1,121,796	1,233,143	1,233,143	1,145,763	1,259,614	1,259,614
<b>#Positions</b>		<b>24</b>	<b>24</b>	<b>24</b>	<b>24</b>	<b>27</b>	<b>27</b>	<b>24</b>	<b>27</b>	<b>27</b>
Extra Help	5010001	11,169	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
<b>#Extra Help</b>		<b>4</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>
Personal Services Matching	5010003	298,914	324,372	318,902	355,543	393,568	393,568	360,502	399,044	399,044
Operating Expenses	5020002	149,837	150,256	150,256	150,256	203,791	203,791	150,256	177,791	177,791
Conference & Travel Expenses	5050009	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000
Professional Fees	5060010	7,500	7,500	7,500	7,500	0	0	7,500	0	0
Data Processing	5090012	0	0	0	0	0	0	0	0	0
Capital Outlay	5120011	0	0	0	0	6,200	6,200	0	0	0
Water Quality Program	5900046	31,855	31,855	31,855	31,855	31,855	31,855	31,855	31,855	31,855
Stream Gauging	5900047	38,300	38,300	38,300	38,300	38,300	38,300	38,300	38,300	38,300
Ground Water Survey	5900048	54,456	48,083	54,456	48,083	54,456	54,456	48,083	54,456	54,456
Mineral Exploration	5900050	23,601	26,000	26,000	26,000	26,000	26,000	26,000	26,000	26,000
<b>Total</b>		<b>1,661,155</b>	<b>1,717,739</b>	<b>1,716,297</b>	<b>1,795,333</b>	<b>2,003,313</b>	<b>2,003,313</b>	<b>1,824,259</b>	<b>2,003,060</b>	<b>2,003,060</b>
<b>Funding Sources</b>										
General Revenue	4000010	1,661,155	1,706,518		1,795,333	2,003,313	2,003,313	1,824,259	2,003,060	2,003,060
Merit Adjustment Fund	4000055	0	11,221		0	0	0	0	0	0
<b>Total Funding</b>		<b>1,661,155</b>	<b>1,717,739</b>		<b>1,795,333</b>	<b>2,003,313</b>	<b>2,003,313</b>	<b>1,824,259</b>	<b>2,003,060</b>	<b>2,003,060</b>
Excess Appropriation/(Funding)		0	0		0	0	0	0	0	0
<b>Grand Total</b>		<b>1,661,155</b>	<b>1,717,739</b>		<b>1,795,333</b>	<b>2,003,313</b>	<b>2,003,313</b>	<b>1,824,259</b>	<b>2,003,060</b>	<b>2,003,060</b>

The Budget amount in Regular Salaries and Personal Services Matching exceeds the Authorized amount due to salary and matching rate adjustments during the 2007-2009 biennium.

## Change Level by Appropriation

**Appropriation:** 166 - State Operations  
**Funding Sources:** HUA - Miscellaneous Agencies Fund

### Agency Request

Change Level		2009-2010	Pos	Cumulative	% of BL	2010-2011	Pos	Cumulative	% of BL
<b>BL</b>	<b>Base Level</b>	<b>1,795,333</b>	<b>24</b>	<b>1,795,333</b>	<b>100.0</b>	<b>1,824,259</b>	<b>24</b>	<b>1,824,259</b>	<b>100.0</b>
C01	Existing Program	6,373	0	1,801,706	100.4	6,373	0	1,830,632	100.3
C02	New Program	158,607	3	1,960,313	109.2	161,628	3	1,992,260	109.2
C04	Reallocation	0	0	1,960,313	109.2	0	0	1,992,260	109.2
C08	Technology	43,000	0	2,003,313	111.6	10,800	0	2,003,060	109.8

### Executive Recommendation

Change Level		2009-2010	Pos	Cumulative	% of BL	2010-2011	Pos	Cumulative	% of BL
<b>BL</b>	<b>Base Level</b>	<b>1,795,333</b>	<b>24</b>	<b>1,795,333</b>	<b>100.0</b>	<b>1,824,259</b>	<b>24</b>	<b>1,824,259</b>	<b>100.0</b>
C01	Existing Program	6,373	0	1,801,706	100.4	6,373	0	1,830,632	100.3
C02	New Program	158,607	3	1,960,313	109.2	161,628	3	1,992,260	109.2
C04	Reallocation	0	0	1,960,313	109.2	0	0	1,992,260	109.2
C08	Technology	43,000	0	2,003,313	111.6	10,800	0	2,003,060	109.8

### Justification

C01	Agency requests \$6,373 to restore appropriation and funding to the Ground Water Survey Program. This funding was blocked in FY09 to pay for salary increases.
C02	Educational Outreach Program expenses include salary and matching for a Professional Geologist, \$2,400 stipend for a teacher with the Supporting Teachers Research Involvement for Vital Education (STRIVE) Program and \$9,235 in educational materials and fuel. Arkansas Geological Survey (AGS) Data Preservation Program expense includes salary and matching for an AGS Specialist; the Information Services Section requires the personal services and matching for a Geographic Information Systems (GIS) Analyst. Proportionate increases for salary amounts constitute the change in the second year.
C04	The addition of a full-time Information Technology (IT) person has eliminated the need for outside professional services for IT. The full amount of \$7,500 has been reallocated to cover increases in electricity, office supplies and janitorial expenses is requested.
C08	In accordance with the IT Plan: Amounts requested are for FY10 are the replacement of a 2003 server, replacement of 4 workstations per year, upgrade Microsoft Office for agency, 3 workstations and software for requested positions. Amounts requested for FY11 are a replacement of 4 workstations and maintenance for software acquired in FY10 (IT Support/Hardware and Software).

## **Analysis of Budget Request**

**Appropriation:** 169 - Map Resale

**Funding Sources:** MWA - Geology Map Resale Revolving Fund

Funding for the Arkansas Geological Survey's Map Resale appropriation is obtained from the sale of geological and topographical maps to the general public. These proceeds are deposited into the Agency's revolving fund, as authorized in A.C.A. §19-4-1804.

The Agency finds the Base Level continuation of \$100,000 for this program to be sufficient to achieve the mission of this program for the 2009-11 biennium.

The Executive Recommendation provides for the Agency Request.

## Appropriation Summary

**Appropriation:** 169 - Map Resale

**Funding Sources:** MWA - Geology Map Resale Revolving Fund

### Historical Data

### Agency Request and Executive Recommendation

Commitment Item	2007-2008	2008-2009	2008-2009	2009-2010			2010-2011		
	Actual	Budget	Authorized	Base Level	Agency	Executive	Base Level	Agency	Executive
Resale Revolving Fund 5900046	31,013	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
<b>Total</b>	<b>31,013</b>	<b>100,000</b>	<b>100,000</b>	<b>100,000</b>	<b>100,000</b>	<b>100,000</b>	<b>100,000</b>	<b>100,000</b>	<b>100,000</b>
<b>Funding Sources</b>									
Fund Balance 4000005	45,155	53,034		53,034	53,034	53,034	53,034	53,034	53,034
Non-Revenue Receipts 4000040	38,892	100,000		100,000	100,000	100,000	100,000	100,000	100,000
<b>Total Funding</b>	<b>84,047</b>	<b>153,034</b>		<b>153,034</b>	<b>153,034</b>	<b>153,034</b>	<b>153,034</b>	<b>153,034</b>	<b>153,034</b>
Excess Appropriation/(Funding)	(53,034)	(53,034)		(53,034)	(53,034)	(53,034)	(53,034)	(53,034)	(53,034)
<b>Grand Total</b>	<b>31,013</b>	<b>100,000</b>		<b>100,000</b>	<b>100,000</b>	<b>100,000</b>	<b>100,000</b>	<b>100,000</b>	<b>100,000</b>

## **Analysis of Budget Request**

**Appropriation:** 210 - State Geologic Mapping Program

**Funding Sources:** FAL - Geology Federal

In the 2007-09 biennium the Arkansas Geological Survey (AGS) made great strides in obtaining new federal grants and increasing its participation in current federal programs which benefit the State and its citizens. The Fayetteville Shale play has greatly amplified the amount of federal research opportunities and interest in the geologic make up of the State. This appropriation is funded solely through federal revenue. AGS is requesting appropriation to fully participate in four federal programs; two of which are new and two are current program expansions.

Base Level salaries for classified positions reflect the recommendations of the Pay Plan Study. A 2.3% Cost of Living Allowance is reflected in the second year of the biennium. The Base Level request for Regular Salaries may include board member Stipend payments and Career Service payments for eligible employees. Personal Services Matching includes a \$75 increase in the monthly contribution for State employee's health insurance for a total State match per budgeted employee of \$425.

The Agency Base Level request is \$82,854 in FY10 and \$84,066 in FY11. The Agency is requesting a \$1,028,000 increase in appropriation in each year of the biennium. \$500,000 in each year is unfunded appropriation requested to allow for new federal programs as they become available to the Agency. The remaining \$528,000 of the request is allocated as follows:

The State Geologic Mapping Program- The primary functions of this program are to coordinate collection of data and formulation of maps displaying the location and quantity of minerals in specific areas of the State. The increase requested for this appropriation is \$112,096 in each year of the biennium and will allow expansion of this program as federal funds become available. Additionally an amount of \$5,060 in Extra Help is requested to restore a currently authorized amount approved by a Miscellaneous Federal Grant.

National Coal Resources Data System (NCRDS)- This program provides a means to collect, interpret, correlate, evaluate coal and other energy through the development and maintenance of a system of databases. The Agency requests an increase of \$35,000 in appropriation due to expectation of grant award growth. Another restoration of Extra Help is requested in this program in the amount of \$8,922 to restore a currently authorized amount approved by a Miscellaneous Federal Grant.

Geologic Data Preservation Program- This new grant is provided through the United States Geological Service (USGS) for the purpose of developing an inventory database of core and well samples collected and currently stored in Arkansas. This database will be compatible with the USGS's National Catalogue. The ready availability of this information will aid the ongoing research regarding the Fayetteville Shale and ground water studies throughout the State. The appropriation requested for this new program is \$78,000 in each year of the biennium. This request includes an AGS Specialist position with a salary of \$26,531 in FY10 and \$27,141 in FY11 along with associated matching.

National Parks Service (NPS) Grant- This new grant award is for the amount of \$230,000 each year of the biennium. It includes a request for a Professional Geologist position with a salary of \$39,199 in FY10 and \$40,100 in FY11 along with corresponding matching amounts. The purpose of this grant is to develop a detailed, digital geologic map of three Arkansas National Parks.

The Executive Recommendation provides for the Agency Request.

## Appropriation Summary

**Appropriation:** 210 - State Geologic Mapping Program

**Funding Sources:** FAL - Geology Federal

### Historical Data

### Agency Request and Executive Recommendation

Commitment Item		Historical Data			Agency Request and Executive Recommendation			Agency Request and Executive Recommendation		
		2007-2008 Actual	2008-2009 Budget	2008-2009 Authorized	2009-2010			2010-2011		
					Base Level	Agency	Executive	Base Level	Agency	Executive
Regular Salaries	5010000	38,721	43,057	34,681	43,702	109,432	109,432	44,707	111,948	111,948
<b>#Positions</b>		<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>3</b>	<b>3</b>
Extra Help	5010001	13,889	14,970	6,835	6,835	20,030	20,030	6,835	20,030	20,030
<b>#Extra Help</b>		<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>
Personal Services Matching	5010003	14,867	15,560	11,749	14,803	39,881	39,881	15,010	40,399	40,399
Operating Expenses	5020002	16,771	17,514	12,454	17,514	941,511	941,511	17,514	939,689	939,689
Conference & Travel Expenses	5050009	0	0	0	0	0	0	0	0	0
Professional Fees	5060010	0	0	0	0	0	0	0	0	0
Data Processing	5090012	0	0	0	0	0	0	0	0	0
Capital Outlay	5120011	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>84,248</b>	<b>91,101</b>	<b>65,719</b>	<b>82,854</b>	<b>1,110,854</b>	<b>1,110,854</b>	<b>84,066</b>	<b>1,112,066</b>	<b>1,112,066</b>
<b>Funding Sources</b>										
Federal Revenue	4000020	84,248	91,101		82,854	610,854	610,854	84,066	612,066	612,066
Unfunded Appropriation	4000715	0	0		0	500,000	500,000	0	500,000	500,000
<b>Total Funding</b>		<b>84,248</b>	<b>91,101</b>		<b>82,854</b>	<b>1,110,854</b>	<b>1,110,854</b>	<b>84,066</b>	<b>1,112,066</b>	<b>1,112,066</b>
Excess Appropriation/(Funding)		0	0		0	0	0	0	0	0
<b>Grand Total</b>		<b>84,248</b>	<b>91,101</b>		<b>82,854</b>	<b>1,110,854</b>	<b>1,110,854</b>	<b>84,066</b>	<b>1,112,066</b>	<b>1,112,066</b>

Actual and Budget amounts exceed Authorized amounts due to the establishment of a Miscellaneous Federal Grant.



## Change Level by Appropriation

**Appropriation:** 210 - State Geologic Mapping Program

**Funding Sources:** FAL - Geology Federal

### Agency Request

Change Level		2009-2010	Pos	Cumulative	% of BL	2010-2011	Pos	Cumulative	% of BL
<b>BL</b>	<b>Base Level</b>	<b>82,854</b>	<b>1</b>	<b>82,854</b>	<b>100.0</b>	<b>84,066</b>	<b>1</b>	<b>84,066</b>	<b>100.0</b>
C01	Existing Program	102,036	0	184,890	223.2	102,161	0	186,227	221.5
C02	New Program	364,910	2	549,800	663.6	366,997	2	553,224	658.1
C05	Unfunded Appropriation	500,000	0	1,049,800	1,267.0	500,000	0	1,053,224	1,252.9
C06	Restore Position/Approp	14,472	0	1,064,272	1,284.5	14,472	0	1,067,696	1,270.1
C08	Technology	46,582	0	1,110,854	1,340.7	44,370	0	1,112,066	1,322.8

### Executive Recommendation

Change Level		2009-2010	Pos	Cumulative	% of BL	2010-2011	Pos	Cumulative	% of BL
<b>BL</b>	<b>Base Level</b>	<b>82,854</b>	<b>1</b>	<b>82,854</b>	<b>100.0</b>	<b>84,066</b>	<b>1</b>	<b>84,066</b>	<b>100.0</b>
C01	Existing Program	102,036	0	184,890	223.2	102,161	0	186,227	221.5
C02	New Program	364,910	2	549,800	663.6	366,997	2	553,224	658.1
C05	Unfunded Appropriation	500,000	0	1,049,800	1,267.0	500,000	0	1,053,224	1,252.9
C06	Restore Position/Approp	14,472	0	1,064,272	1,284.5	14,472	0	1,067,696	1,270.1
C08	Technology	46,582	0	1,110,854	1,340.7	44,370	0	1,112,066	1,322.8

### Justification

C01	State Map Grant requests an increase in appropriation based on expected growth of grant award amount. A request is also made for the National Coal Resources Data System (NCRDS) grant for additional appropriation based on expected continuation and increase in award amount.
C02	Two new grant programs are included in this request. Requests for appropriation for anticipated grants include one from the Department of Interior (DOI)-United States Geological Service (USGS) for Geologic Data Preservation Program. This program includes a new AGS Specialist position and operating funds of \$106,879 for FY10 and \$107,144 for FY11. The second new program is from the DOI-National Parks Service for Geologic Resource Evaluation. This request is for \$230,000 in both years of the biennium. This program includes a request for a Registered Professional Geologist.
C05	Agency requests \$500,000 of unfunded appropriation due to the possibility of unforeseen federal grant increases and new federal programs.
C06	This is due to an adjustment in appropriation from a Miscellaneous Federal Grant. 2 Extra Help positions are being restored, one in the Coal Data Program (\$8,135) with associated matching (\$787) and the other in the State Map Grant Program (\$5,060).
C08	In accordance with the Information Technology (IT) Plan, the following appropriations for expenses are requested: State Map Grant and NCRDS grant request increases for software licenses (IT Support/Software) and data processing supplies (IT Support/Other). In anticipation of receiving grants from National Parks and USGS, requests are made for rental of data processing equipment, software and data processing supplies (IT Support/Hardware, Software, and Other).

## **Analysis of Budget Request**

**Appropriation:** 54U - State Farm Grant

**Funding Sources:** NGC - Geology Private Grants

The State Farm Grant is a privately funded grant donated by State Farm in order to increase earthquake awareness throughout the State. The appropriation provides outreach to the citizens of the State in the form of town hall meetings. In these meetings a geologist will give a presentation on earthquake basics and preparedness techniques. This appropriation was established in FY09 through a transfer from the Cash Holding Account.

The Agency is requesting \$36,000 in cash appropriation.

The Executive Recommendation provides for the Agency Request. Expenditure of appropriation is contingent upon available funding.

## Appropriation Summary

**Appropriation:** 54U - State Farm Grant

**Funding Sources:** NGC - Geology Private Grants

### Historical Data

### Agency Request and Executive Recommendation

Commitment Item	Historical Data			2009-2010			2010-2011		
	2007-2008 Actual	2008-2009 Budget	2008-2009 Authorized	Base Level	Agency	Executive	Base Level	Agency	Executive
Operating Expenses 5020002	1,097	36,000	0	0	36,000	36,000	0	36,000	36,000
Total	1,097	36,000	0	0	36,000	36,000	0	36,000	36,000
Funding Sources									
Fund Balance 4000005	0	8,935		8,935	8,935	8,935	8,935	8,935	8,935
Cash Fund 4000045	10,000	36,000		0	36,000	36,000	0	36,000	36,000
Interest Income / Royalties 4000307	32	0		0	0	0	0	0	0
Total Funding	10,032	44,935		8,935	44,935	44,935	8,935	44,935	44,935
Excess Appropriation/(Funding)	(8,935)	(8,935)		(8,935)	(8,935)	(8,935)	(8,935)	(8,935)	(8,935)
Grand Total	1,097	36,000		0	36,000	36,000	0	36,000	36,000

Actual and Budget amounts exceed Authorized Appropriation due to a transfer from the Cash Fund Holding Account.

## Change Level by Appropriation

**Appropriation:** 54U - State Farm Grant  
**Funding Sources:** NGC - Geology Private Grants

### Agency Request

Change Level		2009-2010	Pos	Cumulative	% of BL	2010-2011	Pos	Cumulative	% of BL
<b>BL</b>	<b>Base Level</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>
C01	Existing Program	36,000	0	36,000	100.0	36,000	0	36,000	100.0

### Executive Recommendation

Change Level		2009-2010	Pos	Cumulative	% of BL	2010-2011	Pos	Cumulative	% of BL
<b>BL</b>	<b>Base Level</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>
C01	Existing Program	36,000	0	36,000	100.0	36,000	0	36,000	100.0

### Justification

C01	Agency requests cash appropriation to continue the Earthquake Research & Outreach Program funded through private grants.
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## **Analysis of Budget Request**

**Appropriation:** 873 - Geology Museum

**Funding Sources:** NGC - Geology Cash

The Geology Museum and Learning Center (GLC) is funded by proceeds of donations collected by the Agency. The GLC is part of the educational arm of the Agency with the purpose of giving students and citizens exposure to rocks, minerals, fossils, and fossil fuels through its five (5) display areas.

The Base Level for this program is \$9,025 each year and represents the Agency Request.

The Executive Recommendation provides for the Agency Request. Expenditure of appropriation is contingent upon available funding.

**Appropriation Summary**

**Appropriation:** 873 - Geology Museum

**Funding Sources:** NGC - Geology Cash

**Historical Data**

**Agency Request and Executive Recommendation**

Commitment Item	Historical Data			2009-2010			2010-2011		
	2007-2008 Actual	2008-2009 Budget	2008-2009 Authorized	Base Level	Agency	Executive	Base Level	Agency	Executive
Museum Expenses 5900046	0	9,025	9,025	9,025	9,025	9,025	9,025	9,025	9,025
Total	0	9,025	9,025	9,025	9,025	9,025	9,025	9,025	9,025
<b>Funding Sources</b>									
Fund Balance 4000005	920	961		961	961	961	961	961	961
Cash Fund 4000045	41	9,025		9,025	9,025	9,025	9,025	9,025	9,025
Total Funding	961	9,986		9,986	9,986	9,986	9,986	9,986	9,986
Excess Appropriation/(Funding)	(961)	(961)		(961)	(961)	(961)	(961)	(961)	(961)
Grand Total	0	9,025		9,025	9,025	9,025	9,025	9,025	9,025