



Harris, Margo &lt;mrharris@usgs.gov&gt;

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**Fwd: Brief attached**

1 message

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**Werkheiser, William** <whwerkhe@usgs.gov>

Mon, Sep 18, 2017 at 11:31 AM

To: Margo Harris &lt;mrharris@usgs.gov&gt;

----- Forwarded message -----

From: **Lodge, Cynthia** <clodge@usgs.gov>

Date: Wed, Aug 2, 2017 at 4:39 PM

Subject: Brief attached

To: William Werkheiser &lt;whwerkhe@usgs.gov&gt;, "Applegate, David" &lt;applegate@usgs.gov&gt;

Cc: Judy Nowakowski &lt;jnowakowski@usgs.gov&gt;

Pretty much like the ELT charts but added a few based on request that came in from Bill Lukas

Added notes as well

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*Cynthia (Cindy) Lodge*  
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**Budget Brief to W&S\_v5\_8.2.17.pptx**

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# Budget Overview to W&S

Prepared by:  
Budget, Planning and Integration

# Process Timeline

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- July 7<sup>th</sup> - 2019 budget and performance plan submitted to DOI
- July - House mark up 2018 budget
- August 7<sup>th</sup> - DOI Passback on 2019 budget
- August 11<sup>th</sup> – Final passback
- August 28<sup>th</sup> – 2019 OMB submission due to POB
- Sept 11<sup>th</sup> – 2019 budget & performance plan due to OMB
- Sept – Senate mark up 2018 Budget
- Nov – Receive feedback from OMB on performance plan and strategic plan
- Dec – OMB budget passback
- Feb – 2019 budget and performance plan released

# 2017 Top Management Challenges

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# USGS Priorities over the Next 4 Years

	<i>\$in Thousands (000)</i>	Mission	2016	2017	2018	2019	2020	2021	2022
		Area							
1	Alaska North Slope Resource Assessments*	EM	0	850	5,450	<b>(b) (5)</b>			
2	Sustainable Land Imaging: Landsat 9 Satellite Ground System	LR	4,300	17,900	26,200				
3	Critical Minerals for American Jobs and National Security (3DEEP)*	EM	0	0	0				
4	Development of Water Budget Components for Resource Managers	Water	2,179	2,179	442				
5	Smart Energy Development – Supporting Conservation and Restoration in Sagebrush Rangelands**								
6	Earthquake Early Warning***	NH	8,200	10,200	10,200				
7	Alaska Mapping and 3D Elevation Program (3DEP) Partnership	CSS	5,222	7,722	5,222				
8	Science for Pre-listing Collaborative Conservation	Eco	1,000	1,000	3,000				
9	Establishing the Limits of the U.S. Extended Continental Shelf	NH	1,329	1,374	1,329				
10	Biosurveillance for Wildlife Disease and Invasive Species	Eco	500	500	1,000				

*Table represents estimated base funding as of August 2, 2017.*

**(b) (5)**

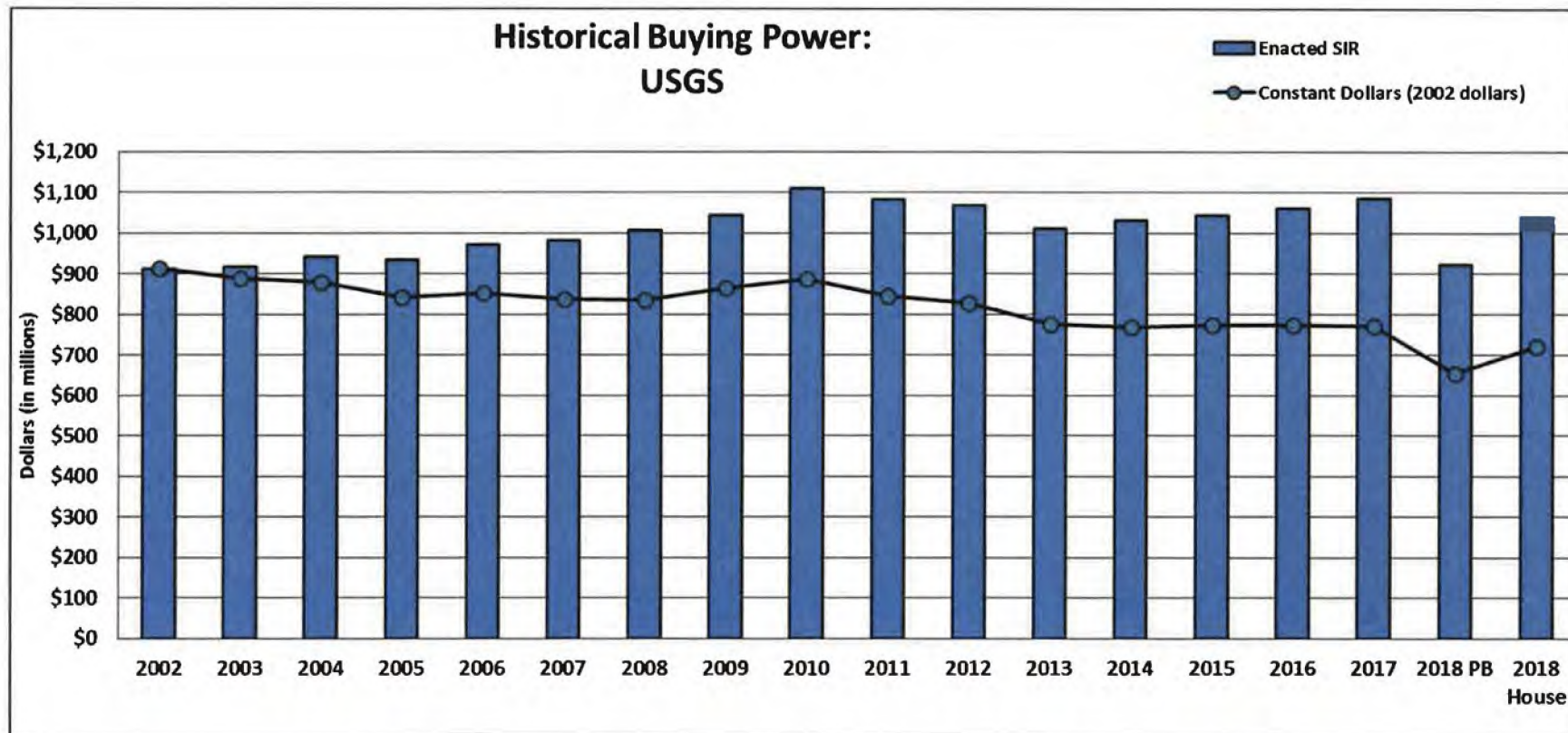
# Budget Summary

Dollars in Thousands	2016	2017	2018				2019			
			Mission Area	Enacted	Enacted	PBR	House	House vs Enacted	House vs PBR	Scenario 1
Ecosystems	160,232	159,732	132,128	153,032	-6,700	20,904	<b>(b) (5)</b>	<b>(5)</b>		
Land Resources	139,975	149,275	112,847	120,603	-28,672	7,756				
Energy and Mineral Resources	73,066	73,066	74,404	74,496	1,430	92				
Environmental Health	21,445	21,245	17,106	21,595	350	4,489				
Natural Hazards	139,013	145,013	118,111	141,504	-3,509	23,393				
Water Resources	210,687	214,754	173,042	210,754	-4,000	37,712				
Core Science Systems	111,550	116,050	92,969	114,737	-1,313	21,768				
Science Support	105,611	105,611	89,368	100,331	-5,280	10,963				
Facilities	100,421	100,421	112,193	101,870	1,449	-10,323				
Fixed Costs										
<b>Total</b>	<b>1,062,000</b>	<b>1,085,167</b>	<b>922,168</b>	<b>1,038,922</b>	<b>-46,245</b>	<b>116,754</b>				

2018 House vs Enacted                      -\$46M (-4.3%)  
 2018 House vs PBR                            +\$116M (+12.7%)

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# Budget History



# Challenges

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# Hot Topics

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- Secretarial Order No. 3352 – Energy assessments to jump start production on the Alaska North Slope.

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# Ecosystems

Dollars in Thousands	2016	2017	2018				2019			
			Mission Area	Enacted	Enacted	PBR	House	House vs Enacted	House vs PBR	Scenario 1
Ecosystems	160,232	159,732	132,128	153,032	-6,700	20,904	(b) (5)			

- **House Accepted:**

(b) (5)

- **House Changes:**

(b) (5)

- **Funded at 2017 enacted level:**

(b) (5)

- **Report Language Specified:**

(b) (5)

# Ecosystems - 2019

Dollars in Thousands	2016	2017	2018	2019			
				Scenario 1	Change from 2018	Scenario 2	Change from 2018
<b>Mission Area</b>	<b>Enacted</b>	<b>Enacted</b>	<b>President's Budget</b>				
<b>Ecosystems</b>	160,232	159,732	132,128	<b>(b) (5)</b>			
<b>Status and Trends</b>	20,473	20,473	16,834				
<b>Status and Trends Eliminations</b>							
<b>Fisheries program</b>	20,886	21,136	15,846				
<b>Fisheries Program Eliminations</b>							
<b>Wildlife Program</b>	45,757	46,007	35,471				
<b>Environments Program</b>	38,415	37,415	29,342				
<b>Invasive Species</b>	17,330	17,330	17,297				
<b>Coopetiave Research Units</b>	17,371	17,371	17,338				

# Land Resources

Dollars in Thousands	2016	2017	2018				2019			
Mission Area	Enacted	Enacted	PBR	House	House vs Enacted	House vs PBR	Scenario 1	Change from 2018 PBR	Scenario 2	Change from 2018 PBR
Land Resources	139,975	149,275	112,847	120,603	-28,672	7,756	(b) (5)			

- **House Accepted:**

(b) (5)

- **Funded at 2017 enacted level:**

(b) (5)

- **Report Language Specified:**

(b) (5)

# Land Resources - 2019

Mission Area	Dollars in Thousands						
	2016 Enacted	2017 Enacted	2018 President's Budget	2019 Scenario 1	2019 Change from 2018	2019 Scenario 2	2019 Change from 2018
<b>Land Resources</b>	139,975	149,275	112,847	(b)	(5)	(b)	(5)
<b>National Land Imaging Program</b>	72,194	85,794	76,127	(b)	(5)	(b)	(5)
<b>Landsat 9 Ground System Development</b>	4,300	17,900	26,700	(b)	(5)	(b)	(5)
<b>Reduce National Satellite Archive Operations and Data Distribution</b>	27,300	27,300	20,200	(b)	(5)	(b)	(5)
<b>Reduce Landsat 7 Flight Operations and Maintenance</b>	7,400	7,400	7,400	(b)	(5)	(b)	(5)
<b>Reduce Landsat 8 Flight Operations and Maintenance</b>	13,200	13,200	13,200	(b)	(5)	(b)	(5)
<b>Reduce Science Research and Investigations</b>	8,495	8,495	5,223	(b)	(5)	(b)	(5)
<b>Land Change Science Program</b>	10,492	9,892	19,285	(b)	(5)	(b)	(5)
<b>Geologic Records of High Sea Level and Evaluations of Coastal Elevation Data</b>	446	446	446	(b)	(5)	(b)	(5)
<b>Eliminate Paleohydrology of Desert Wetlands</b>	524	524	524	(b)	(5)	(b)	(5)
<b>Ecosystem Modelling and Decision Support</b>	1,162	1,162	1,162	(b)	(5)	(b)	(5)
<b>Eliminate Vulnerability of Coastal Marshes to Changing Sea Level</b>	468	468	468	(b)	(5)	(b)	(5)
<b>National and Regional Climate Adaptation Centers</b>	26,435	25,335	17,435	(b)	(5)	(b)	(5)
<b>Eliminate Climate Adaptation Science for Tribes</b>	500	500	500	(b)	(5)	(b)	(5)
<b>Reduce Science for Critical Landscapes: Arctic</b>	3,647	3,647	3,647	(b)	(5)	(b)	(5)

# Energy and Minerals and Environmental Health

Dollars in Thousands	2016	2017	2018				2019			
			Mission Area	Enacted	Enacted	PBR	House	House vs Enacted	House vs PBR	Scenario 1
Energy and Mineral Resources	73,066	73,066	74,404	74,496	1,430	92	(b) (5)			
Environmental Health	21,445	21,245	17,106	21,595	350	4,489				

- **House Accepted:**

(b) (5)

- **Funded at 2017 Enacted Level:**

(b) (5)

- **Report Language Specified:**

(b) (5)

# Energy and Mineral Resources - 2019

Dollars in Thousands	2016	2017	2018	2019			
Mission Area	Enacted	Enacted	President's Budget	Scenario 1	Change from 2018	Scenario 2	Change from 2018
<b>Energy and Mineral Resources</b>	73,066	73,066	74,404	(b) (5)			
<b>Mineral Resources Program</b>	48,371	48,371	48,279				
Eliminate the Tucson, AZ Office of the Geology, Minerals, Energy, and Geophysics Science Center (GMEG)	1,084	1,084	1,084				
Reduce Mineral Resources Research, Assessment, and Laboratory Capabilities at the Eastern Mineral and Environmental Resources Science Center (EMERSC)	4,395	4,395	4,395				
<b>Energy Resources Program</b>	24,695	24,695	26,125				
Reduce State Cooperative Agreements for Research on Coal and Other Energy Resources	440	440	440				
Eliminate the Science and Decisions Center	977	977	977				
Eliminate Non-Petroleum Resource Assessments	1,500	1,500	1,500				
Eliminate Geologic Carbon Sequestration	0	0	1,477				

# Environmental Health - 2019

Dollars in Thousands	2016	2017	2018	2019			
	Enacted	Enacted	President's Budget	Scenario 1	Change from 2018	Scenario 2	Change from 2018
<b>Environmental Health</b>	21,445	21,245	17,106	<b>(b)</b>	<b>(5)</b>		
<b>Contaminant Biology Program</b>	10,197	10,197	8,230				
<b>Eliminate Biological Science Activities Related to Mineral Resources</b>	500	500	500				
<b>Eliminate Biological Science Activities Related to Energy Resources</b>	500	500	500				
<b>Toxic Substances Hydrology Program</b>	11,248	11,048	8,876				
<b>Eliminate Geochemical and Hydrological Science Activities Related to Energy Resources and Food Production</b>	487	487	487				

# Natural Hazards

Dollars in Thousands	2016	2017	2018				2019			
Mission Area	Enacted	Enacted	PBR	House	House vs Enacted	House vs PBR	Scenario 1	Change from 2018 PBR	Scenario 2	Change from 2018 PBR
Natural Hazards	139,013	145,013	118,111	141,504	-3,509	23,393	(b) (5)			

- **House Accepted:**

(b) (5)

- **Funded at 2017 Enacted Level:**

(b) (5)

## Natural Hazards (cont.)

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- **Funded at 2017 Enacted Level (cont.):**

(b) (5)

- **Report Language Specified:**

(b) (5)

# Natural Hazards - 2019

Dollars in Thousands Mission Area	2016	2017	2018	2019			
	Enacted	Enacted	President's Budget	Scenario 1	Change from 2018	Scenario 2	Change from 2018
<b>Natural Hazards</b>	139,013	145,013	118,111	(b) (5)			
<b>Earthquakes Hazards program</b>	60,503	64,303	51,388				
Eliminate Science Application for Risk Reduction (SAFRR) Risk Communication	832	832	832				
Eliminate Implementation of Earthquake and Aftershock Forecast Advisory System	500	500	500				
Reduce Support for Earthquake Hazards Assessments	13,575	13,575	13,575				
Reduce Advanced National Seismic System (ANSS) Regional Seismic Networks	6,395	6,395	6,395				
<b>Volcano Hazards Program</b>	26,121	28,121	22,432				
Terminate Volcanic Ash Hazard Impacts Modeling	527	527	527				
Eliminate Science Application for Risk Reduction (SAFRR) Risk Communication	10	10	10				
Reduce Volcano Monitoring Cooperative Agreements and Alaska Monitoring Maintenance	2,530	2,530	2,530				
Consolidate the Yellowstone and California Volcano Observatories	823	823	823				
<b>Landslides Hazards Program</b>	3,538	3,538	3,531				
Terminate Landslide Research in the Eastern US and Reduce Debris-flow Early Warning	1,320	1,320	1,320				
Eliminate Science Application for Risk Reduction (SAFRR) Risk Communication	40	40	40				
<b>Global Seismographic Network</b>	6,453	6,653	4,986				
<b>Geomagnetism Program</b>	1,888	1,888	0				
<b>Coastal/Marine Hazards and Resources</b>	40,510	40,510	35,774				
Reduce Development of Forecasts for Coastal Change Hazards: Wetlands, Corals, Estuaries	3,826	3,826	3,826				
Eliminate Science Application for Risk Reduction (SAFRR) Risk Communication	48	48	48				
Reduce Delivery of Forecasts for Coastal Change Hazards: Beaches and Barrier Islands	6,848	6,848	6,848				

# Water Resources

Dollars in Thousands	2016	2017	2018				2019				
			Mission Area	Enacted	Enacted	PBR	House	House vs Enacted	House vs PBR	Scenario 1	Change from 2018 PBR
Water Resources	210,687	214,754	173,042	210,754	-4,000	37,712	(b) (5)				

- **House Accepted:**

(b) (5)

- **Funded at 2017 Enacted Level:**

(b) (5)

## Water Resources (cont.)

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- **Funded at 2017 Enacted Level (cont.):**

(b) (5)

- **Report Language Specified:**

(b) (5)

# Water Resources - 2019

Dollars in Thousands	2016	2017	2018	2019	
				Scenario 1	Scenario 2
Mission Area	Enacted	Enacted	President's Budget	Change from 2018	Change from 2018
<b>Water Resources</b>	<b>210,687</b>	<b>214,754</b>	<b>173,042</b>		
<b>Water Availability and Use Science Program</b>	<b>42,052</b>	<b>45,052</b>	<b>30,413</b>		
Eliminate Cooperative Matching Funds - Water Use Research	0	1,000	1,000		
National and Regional Water Budget Component	2,197	2,197	2,197		
<b>Groundwater and Streamflow Information Program</b>	<b>71,535</b>	<b>72,673</b>	<b>68,159</b>		
Reduce Water Tools	486	486	486		
Reduce Water Hazards Activities	2,600	3,300	2,600		
Eliminate Cooperative Matching Funds - Indian Water Rights	0	500	500		
Eliminate Two Groundwater Activities	3,509	3,509	1,809		
Eliminate Science Application for Risk Reduction (SAFRR)	55	55	55		
<b>National Water Quality Program</b>	<b>90,600</b>	<b>90,529</b>	<b>74,470</b>		
Reduce Ground Water Quality Monitoring and Modeling	21,097	21,097	21,097		
Reduce Surface Water Quality Monitoring and Modeling	41,796	41,796	41,796		
Reduce HQ Technical Support	16,102	14,314	14,314		
Reduce National Research Program (NRP)	10,003	10,003	3,991		
<b>Water Research Act Program</b>	<b>6,500</b>	<b>6,500</b>	<b>0</b>		

(b) (5)

# Core Science Systems

Dollars in Thousands	2016	2017	2018				2019				
			Mission Area	Enacted	Enacted	PBR	House	House vs Enacted	House vs PBR	Scenario 1	Change from 2018 PBR
Core Science Systems	111,550	116,050	92,969	114,737	-1,313	21,768	(b) (5)				

- **House Accepted:**

(b) (5)

- **Funded at 2017 Enacted Level:**

(b) (5)

- **Report Language Specified:**

(b) (5)

(b) (5)

# Core Science Systems - 2019

Dollars in Thousands	2016	2017	2018	2019			
				Scenario 1	Change from 2018	Scenario 2	Change from 2018
Mission Area	Enacted	Enacted	President's Budget				
<b>Core Science Systems</b>	111,550	116,050	92,969	<b>(b) (5)</b>	<b>(5)</b>		
<b>Science Synthesis, Analysis and Research</b>	24,299	24,299	18,753				
<b>National Cooperative Geological Mapping Program</b>	24,397	24,397	22,281				
Reduce National Cooperative Geologic Mapping Functions	24,397	24,397	22,281				
<b>National Geospatial Program</b>	62,854	67,354	51,935				
Reduce Topographic Data Acquisition for 3DEP	24,722	29,222	20,022				

# Science Support and Facilities

Dollars in Thousands	2016	2017	2018				2019			
			Mission Area	Enacted	Enacted	PBR	House	House vs Enacted	House vs PBR	Scenario 1
Science Support	105,611	105,611	89,368	100,331	-5,280	10,963	(b) (5)			
Facilities	100,421	100,421	112,193	101,870	1,449	-10,323	(b) (5)			

- **House Accepted:**

(b) (5)

- **Specified:**

(b) (5)

# Science Support & Facilities - 2019

Dollars in Thousands	2016	2017	2018	2019			
				Mission Area	Enacted	Enacted	President's Budget
<b>Science Support</b>	105,611	105,611	89,368	(b) (5)	(5)		
<b>Administration Management</b>	81,981	81,981	69,379				
Reduce Administration and Management Services	81,981	81,981	69,379				
<b>Information Services</b>	23,630	23,630	19,989				
Complete Distribution of GIS Software to User Base	395	395	395				
Reduce IMT Support Through VSIP/VERA	10,480	10,480	10,480				
Converting Contractors to Federal Employees	1,010	1,010	1,010				
Moving to a Cost Recovery Model for Specific IMT Services	295	295	295				
Creating Cost Efficiencies Through Virtualization and Elimination of Back-up Redundancy for NatWeb	80	80	80				
Eliminate support for Bureau-wide IMT training	63	63	63				
<b>Facilities</b>	100,421	100,421	112,193				
Rental Payments and Operations & Maintenance	93,141	93,141	104,927				
Deferred Maintenance and Capital Improvement	7,280	7,280	7,266				

# Summary

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- Our organization is salary intensive. We are dependent on reimbursable funding and it's use in paying for permanent FTE and in increasing operational costs.
- We have challenges across USGS in aging facilities, funding and staffing limitations, and partnerships.
- Concerns over 2018 and 2019 budget levels. Being able to fund (b) (5)  
[Redacted]  
[Redacted]  
[Redacted]

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# Back up

# Reports for Appropriations Committees (2017)

## Ecosystems

(b) (5)

## Energy and Minerals

(b) (5)

## Natural Hazards

(b) (5)

## Water Resources

(b) (5)

## Facilities

(b) (5)