

## Heather O'Hara

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**From:** Martinko, Edward A. <martinko@ku.edu>  
**Sent:** Sunday, November 12, 2017 4:49 PM 4  
**To:** Heather O'Hara  
**Cc:** Jaime Gaggero (Jaime.Gaggero@ks.gov); Mandel, Rolfe David; Harris, Theodore Daniel; Kastens, Jude H.; Stover, Susan  
**Subject:** RE: Follow-up information - Special Committee on Natural Resources  
**Attachments:** Bathymetry request. Interin Committee Natural Resources.docx; Lake ReservoirDataPortal.docx

Hello, Heather,

The response to your questions for the **Kansas Biological Survey** are as follows;

### Questions

- Combine recommendations into a chart of all priorities, combining the requests of agencies and organizations. Please have agencies get together to make one proposal to fund HABs and algal bloom projects.

KBS is requesting **\$200,000** annually for its part in the HABs and algal bloom **HABs projects**. The explanation of KBS's portion was sent to Jamie on Friday and you should receive a combined summary of the KDHE and KBS joint initiative.

- KBS – regarding the water data repository, linking databases, what agencies are participating in these activities?

In one of the files attached above (**Bathymetry request**) you will find the KBS request for Bathymetry, Sediment Analysis Research, and the Lakes and Reservoirs Portal. In the **second file** attached (**Lake Reservoir Data Portal**), you will find the list of the various state and federal agencies with datasets that can be accessed by the Portal.

KBS is requesting **\$200,000 annually** to fund bathymetric field and laboratory research, sediment analysis and support of the Kansas Lakes and Reservoirs Portal.

- On an annual basis, how much money do KBS and KGS need to adequately fund the research necessary to answer those and other questions?

KBS is requesting **\$150,000 annually** for its part in the Stream Bank Study on a cooperative basis with KGS. The explanation of KBS's role in the study will be submitted shortly by Rolfe Mandel as a combined summary of the KGS and KBS joint initiative.

### Summary annual funding needed by KBS to adequately fund the necessary research:

**Total : \$550,000 annually as follows:**

**Hazardous Algal Blooms: \$200,000 annual**

**Bathymetric research and Lake/Reservoir Portal: \$200,000 annual**

**Stream Bank Study: \$150,000 annual**

Please let me know if you have questions or need additional information.

Thanks for your help and patience!

**Funding for Bathymetry, Sediment Analysis research and the Kansas Lakes and Reservoirs Portal**

Kansas Biological Survey (KBS) is requesting \$200,000 annually for bathymetric mapping, sediment analysis, and biological research as well as maintenance and updates of the *Kansas Lakes and Reservoir Portal*.

**Bathymetric Mapping and Sediment Analysis Research Program (Bathymetric Mapping Program)** – The objective of the Bathymetric Mapping and Sediment Research Program is to continue to systematically conduct bathymetric mapping and sediment core research on federal and state reservoirs, particularly ones providing drinking water supply. Bathymetric mapping is the process of mapping the bottom of a water body using state-of-the-art scientific-grade acoustic echo sounding technology. **Bathymetry and sediment analysis provides updated reservoir water storage capacity (quantity), sources of sediment and infill date prediction, as well as insight into how to reduce sedimentation**

Beginning in 2006 KBS studied more than 21 federal and 55 state and local lakes with this technology as presented in the KBS 2014 publication, *Atlas of Kansas Lakes, A resource for communities, policy makers and planners*. We will follow change in storage capacity for those previously mapped and where management actions are being taken but also where they have not yet been taken as summarized by the priorities outlined in the following table provided by the KWO in conjunction with the State Water Plan:

Rank (by date)	Reservoir	Last survey	Lost Capacity	Updated Survey?	Rank (by date)	Reservoir	Last survey	Lost Capacity	Updated Survey?
1	Waconda	2001	14%	FY19 - KBS (if funded)	12	Milford	2009	12%	-
2	Kanopolis	2007	40%	USACE proposed	13	Melvern	2009	4%	-
3	Council Grove	2008	19%	FY18 - KBS	14	Toronto	2010	45%	-
4	Marion	2008	6%	FY18 - KBS	15	Fall River	2010	36%	-
5	Wilson	2008	5%	-	16	Bill Hill	2010	18%	-
6	Tuttle	2009	46%	USACE proposed	17	Cheney	2010	7%	-
7	Elk City	2009	35%	-	18	El Dorado	2010	5%	-
8	Pomona	2009	25%	-	19	Lovewell	2011	22%	-
9	Hillsdale	2009	8%	USACE proposed	20	Webster	2011	1%	-
10	Clinton	2009	10%	USACE proposed	21	Kirwin	2013	5%	-
11	Perry	2009	21%	-	22	John Redmond	2014	40%	-

The results of this bathymetry mapping and sediment research together with current and historical data about Kansas lakes and reservoirs will be made available to the public through the on-line KBS *Kansas Lakes and Reservoirs Portal*, which provides a dynamic connection to directly access datasets housed and maintained by various state and federal agencies and groups.

KBS is requesting \$200,000 annually to fund bathymetric field and laboratory research, sediment analysis support, and equipment/travel/supplies as well as support and maintenance of the Kansas Lakes and Reservoirs Portal.

## Kansas Biological Survey:

### Mission Statement for the Kansas Lakes and Reservoirs Data Portal

The mission of the Kansas Lakes and Reservoirs data portal is to serve as a central point for users to obtain current and historical data about Kansas lakes and reservoirs. Rather than serving as a data repository, the portal is a dynamic connection to directly access datasets housed and maintained by various agencies and groups. The portal brings these datasets into a mapping application for direct viewing and data download.

### Agencies with data accessible through the Portal or summarized on the Portal:

Bureau of Reclamation

Kansas Biological Survey

Kansas Department of Agriculture, Division of Conservation

Kansas Department of Health and Environment

Kansas Department of Wildlife, Parks, and Tourism

Kansas Department of Wildlife, Parks, and Tourism, Ecological Service Section

Kansas Geological Survey

Kansas GIS Policy Board

Kansas Environmental and Protection Agency

Kansas Water Office

Kansas Water Authority

International Union for Conservancy of Nature Red List of Threatened Species

National Aeronautics and Space Administration

National Oceanic and Atmospheric Association Invasive Species Program

The National Science Foundation

The Nature Conservancy

U.S. Army Corps of Engineers

U.S. Department of Agriculture Invasive Species Program

U.S. Environmental Protection Agency

U.S. Fish and Wildlife Services

U.S. Fish and Wildlife Services Endangered Species Program

U.S. Fish and Wildlife Services Invasive Species Program

U.S. Geological Survey

U.S. Geological Survey Invasive Program