2014 HAB Season in review

Presented by
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KDHE Bureau of Environmental Health

November 19, 2014

KDHE Roles & Responsibilities

- Responds to HAB complaints in public waters (KSU works with owners of private ponds)

- Performs sample collection and analysis

- **Provides public health messaging based upon the conditions tested**

Partners' Roles & Responsibilities

- **Lake managers (KDWPT, USACE, etc) work with KDHE to learn of the health risks associated with HAB levels to make decisions regarding access to lakes**

- Signs are posted by lake managers

- Flood control operations (i.e. releasing the water to control levels) belong to lake managers.

Public Health Messages

Designed to educate public so they can make informed decisions

Public Health Advisory

Public Health Warning

Public Health Advisory

- Issued when BGA cell counts exceed 20,000 but is less than 100,000 cells per milliliter of water or Microcystin concentrations are greater than 4 but less than 20 micrograms per liter of water

- Lake managers post signs
- Discourage direct contact with water
- Local Health Depts, health care providers and veterinarians are notified
- Public Water Supplier notified if needed
- News Release issued

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Public Health Warning

•Issued when BGA cell counts exceed 100,000 cells per milliliter of water or Microcystin concentrations are greater than 20 micrograms per liter of water

- Signs are posted
- Recommendation – Prohibit direct contact with water
- Notify local health departments, health care providers and veterinarians
- Notify public water suppliers if needed
- Issue media release

2014 HAB Season

- In 2014, there were 27 water bodies tested for HAB
- Each lake/bloom was unique and the duration of the blooms varied significantly from “0 days” to “147+ days” (21 weeks).
- 2014 Surveillance of HABs recorded a new all time high in BGA cells count and toxicity levels at a major Kansas Lake
- Recurrence of HABs at specific lakes in Kansas is increasing which is a detriment to both population and economic health in Kansas.

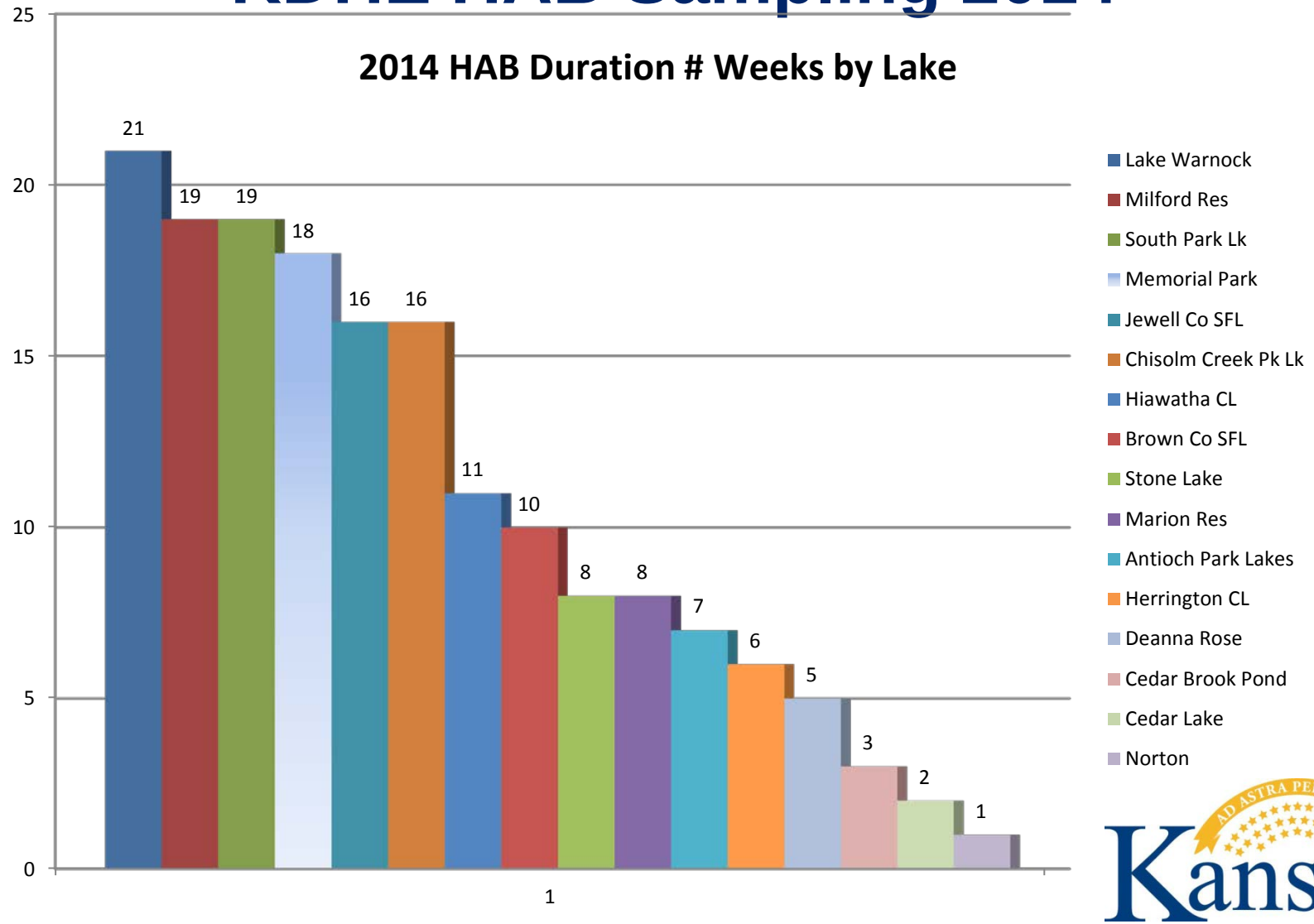
HAB lakes in 2014

Antioch Park Lakes		NE	7-28 thru 9-8		3	W-A-L	3	7
Atchison Co Park Lake		NE	18-Aug		1	L	1	0
Belleville City Lake		NC	28-Jul		1	L	1	0
Brown Co SFL		NE	8-18 thru 10-27		5	W-L	5	10
Cedar Brook Pond		SC	6-30 thru 7-14		2	W-L	2	3
Cedar Lake		NE	8-5 thru 8-18		2	W-L	2	2
Chisolm Creek Pk Lk	*	SC	7-14 thru 10-27		6	W	6	16
Council Grove CL		NC	23-Jun		1	L	2	0
Deanna Rose		NE	8-5 thru 9-4		4	W-L	4	5
Herrington CL		NC	5-27 thru 7-7		4	W-A-L	8	6
Hiawatha CL		NE	8-5 thru 10-27		5	W-L	5	11
Jewell Co SFL	*	NC	7-14 thru 10-27		6	W	6	16
Lake Meade		SW	7-Jul		1	L	3	0
Lake Shawnee		NE	20-May		1	L	2	0
Lake Warnock		NE	6-2 thru 10-27		4	A-W-L	4	21
Logan CL		NC	30-Jun		1	L	2	0
Marion Res		SC	6-18 thru 8-4		7	W-A-L	24	8
Memorial Park	*	NC	6-30 thru 10-28		5	W	6	18
Milford Res		NC	6-2 thru 10-13		19	W-A-M-L	95	19
Norton		NW	7-7 thru 7-14		2	A-L	3	1
Riggs Park		SC	2-Sep		1	L	1	0
Roses Lake		NE	23-Jun		1	L	1	0
South Park Lk		NE	6-16 thru 10-27		5	W-L	5	19
Stone Lake		NW	9-8 thru 10-27		3	A-L	3	8
Toronto Lake		SE	28-Jul		1	L	2	0

Lakes with HABs over 5 weeks - 2014

Name		DO	Time		Visits	Range		Weeks
Lake Warnock		NE	6-2 thru 10-27		4	A-W-L		21
Milford Res		NC	6-2 thru 10-13		19	W-A-M-L		19
South Park Lk		NE	6-16 thru 10-27		5	W-L		19
Memorial Park	*	NC	6-30 thru 10-28		5	W		18
Jewell Co SFL	*	NC	7-14 thru 10-27		6	W		16
Chisolm Creek Pk Lk	*	SC	7-14 thru 10-27		6	W		16
Hiawatha CL		NE	8-5 thru 10-27		5	W-L		11
Brown Co SFL		NE	8-18 thru 10-27		5	W-L		10
Stone Lake		NW	9-8 thru 10-27		3	A-L		8
Marion Res		SC	6-18 thru 8-4		7	W-A-L		8
Antioch Park Lakes		NE	7-28 thru 9-8		3	W-A-L		7
Herrington CL		NC	5-27 thru 7-7		4	W-A-L		6
Deanna Rose		NE	8-5 thru 9-4		4	W-L		5

KDHE HAB Sampling 2014



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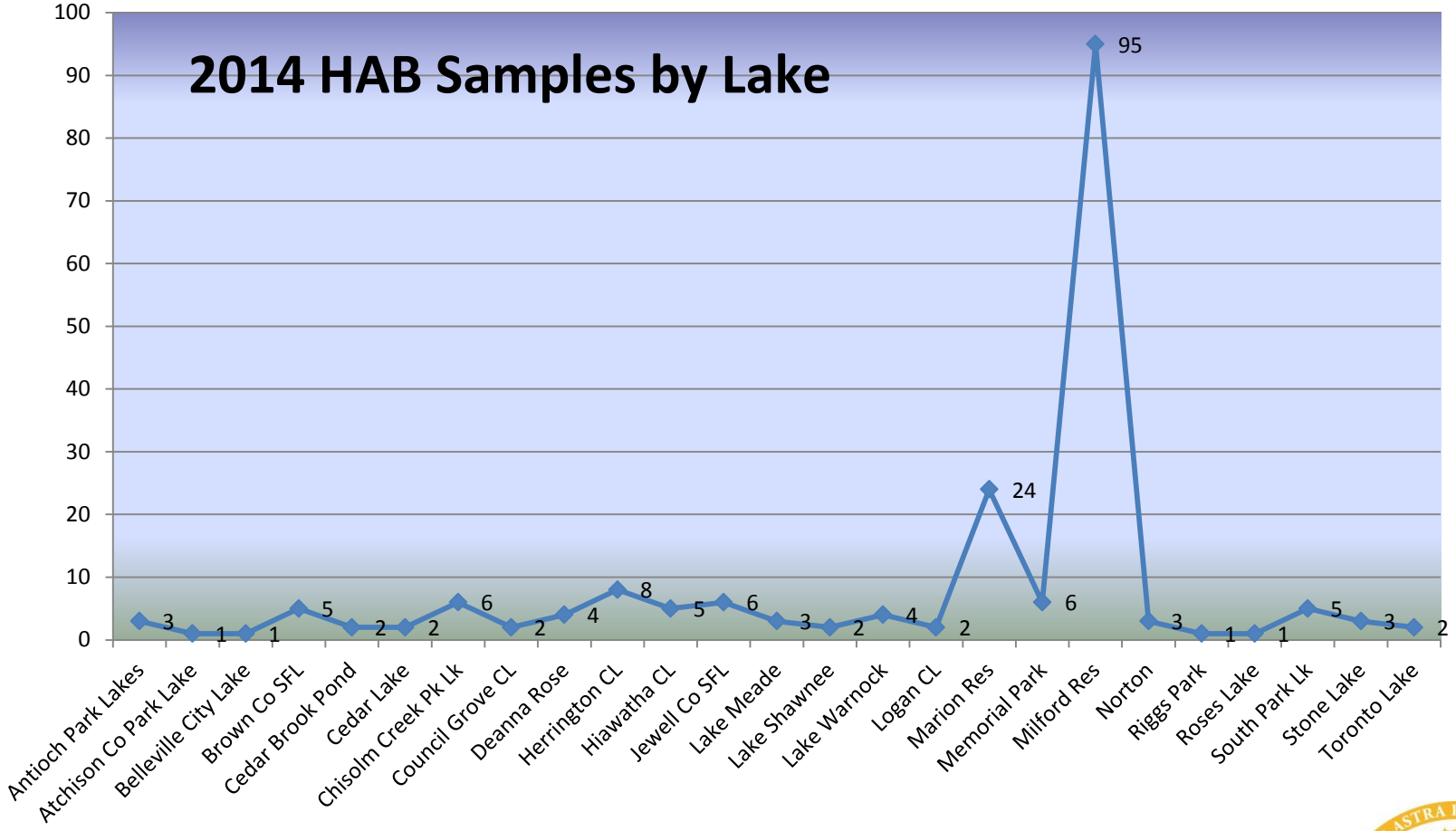

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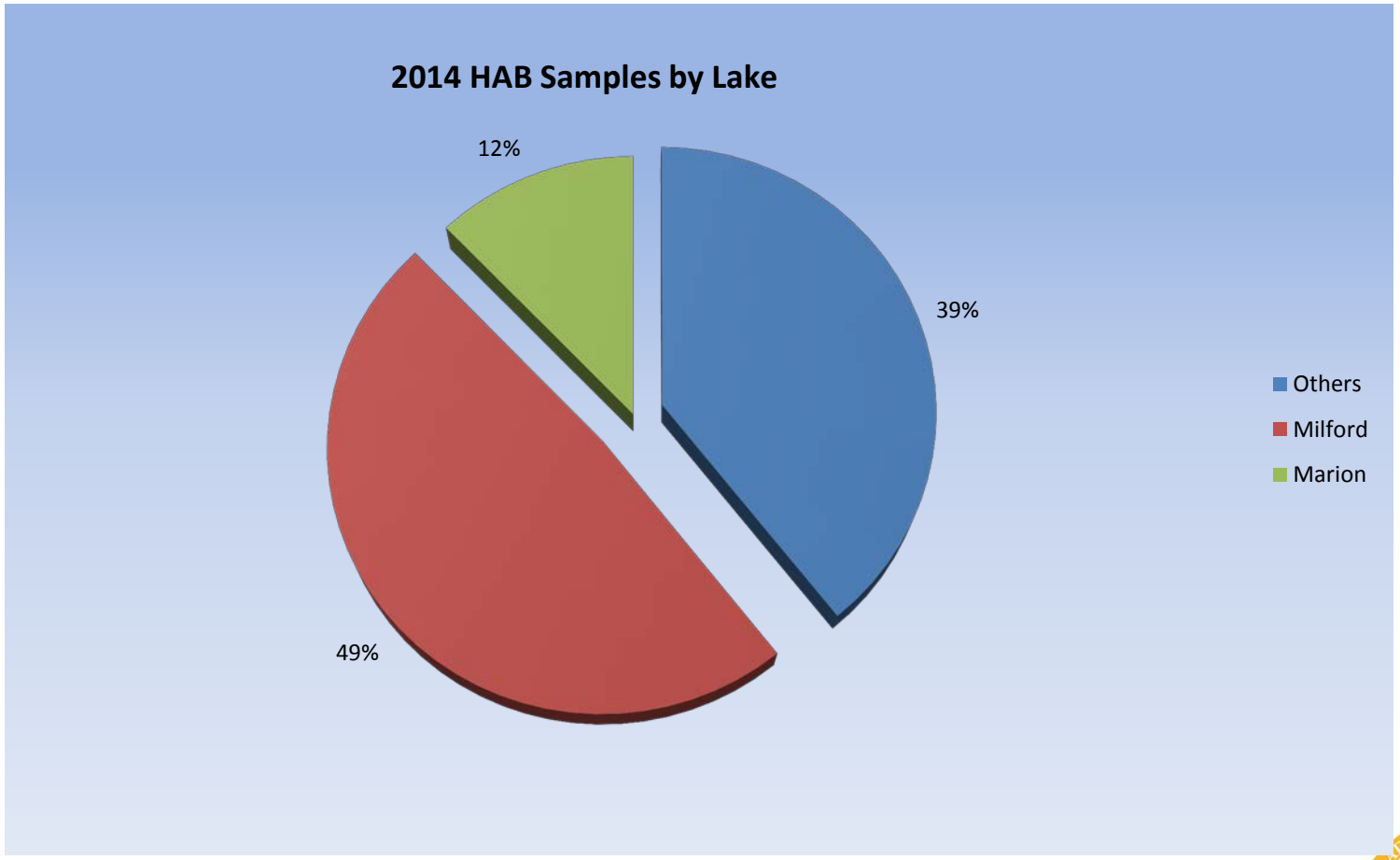

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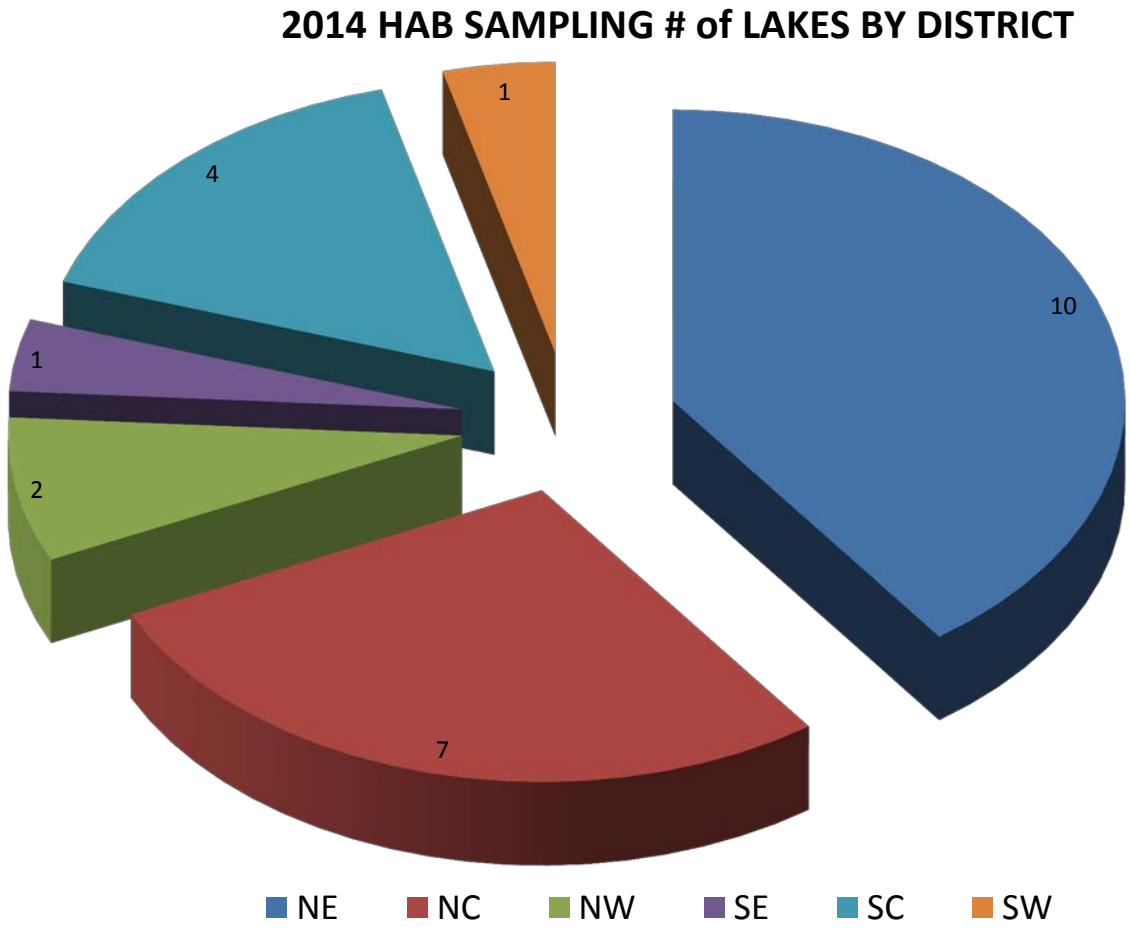

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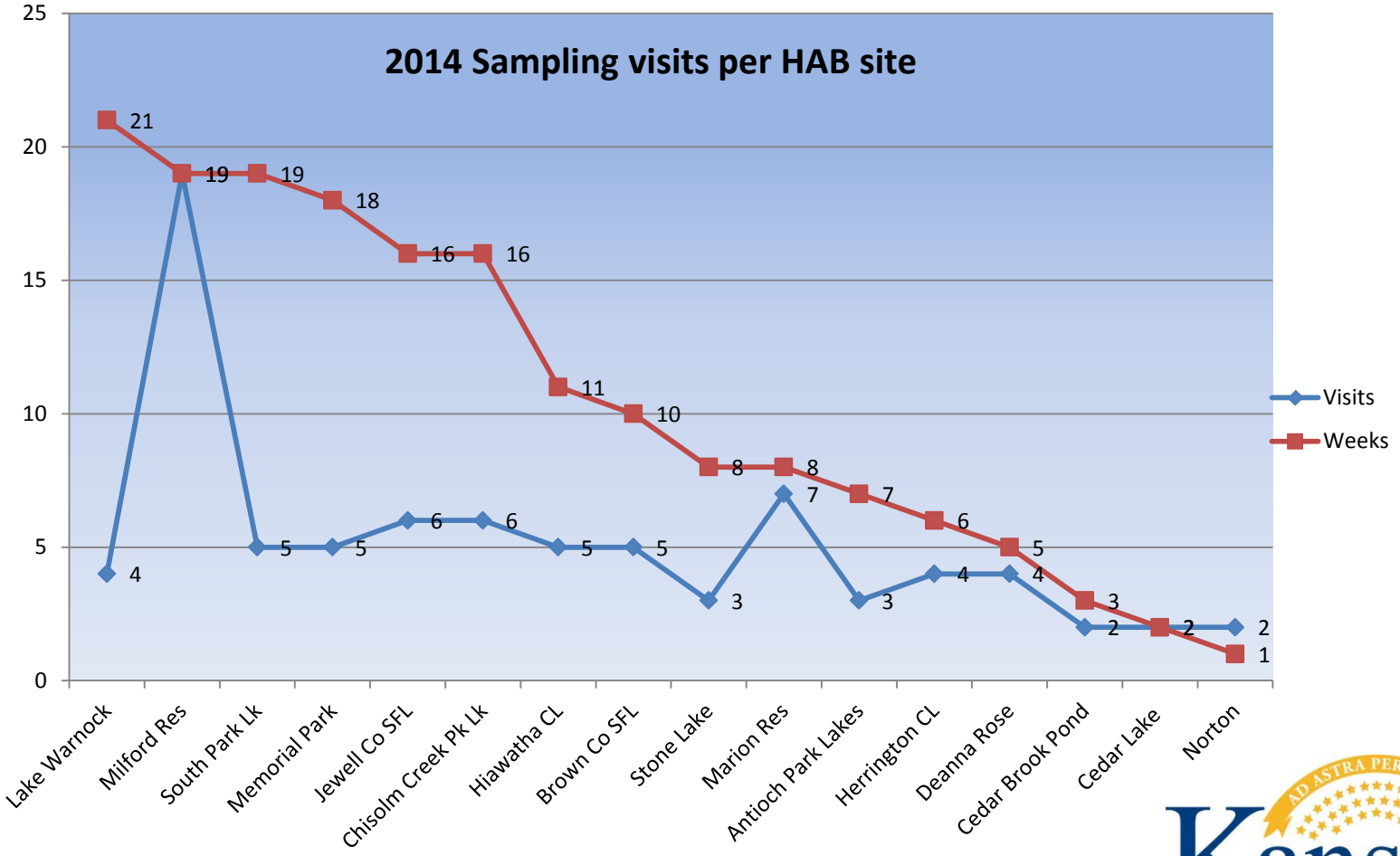
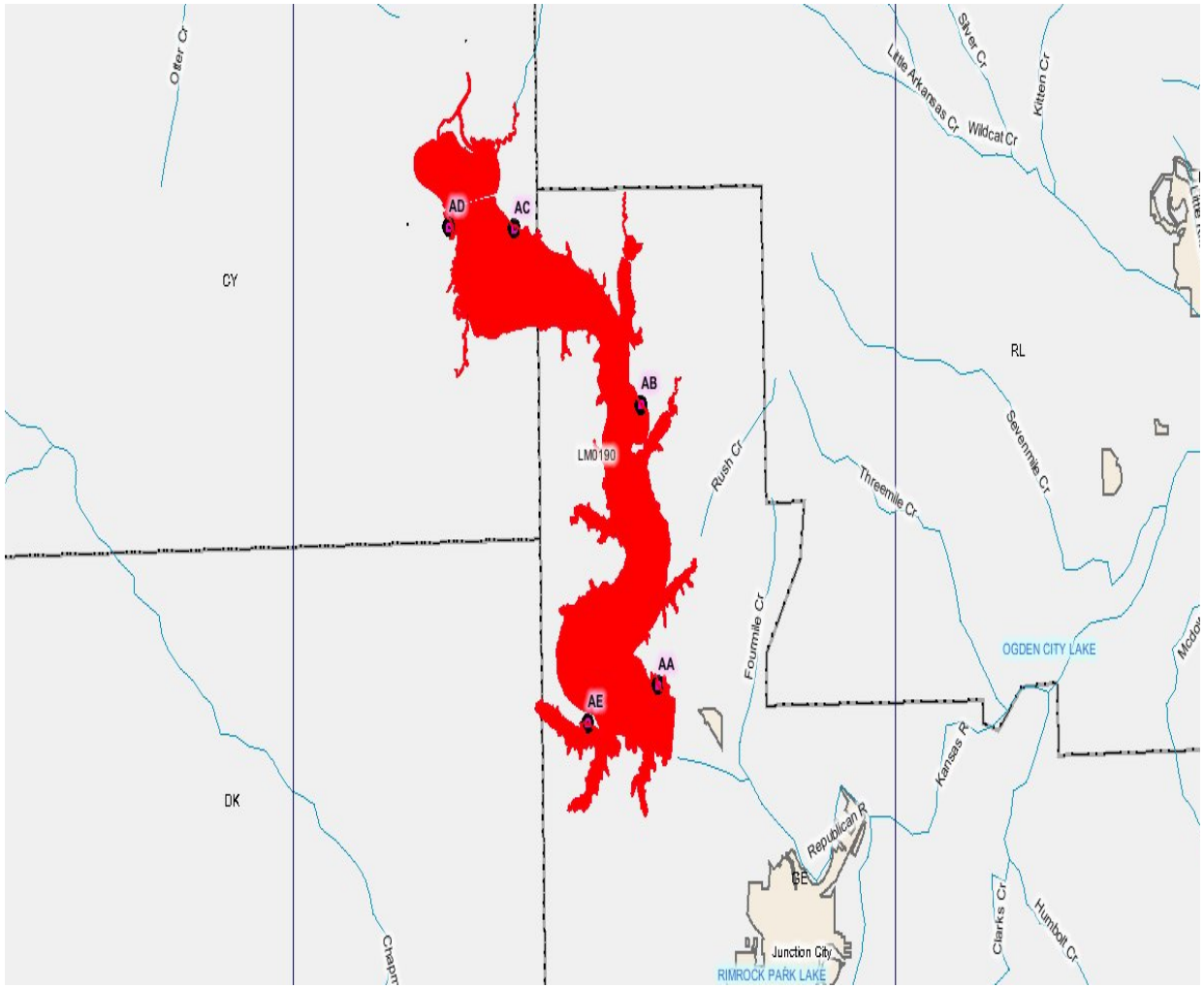


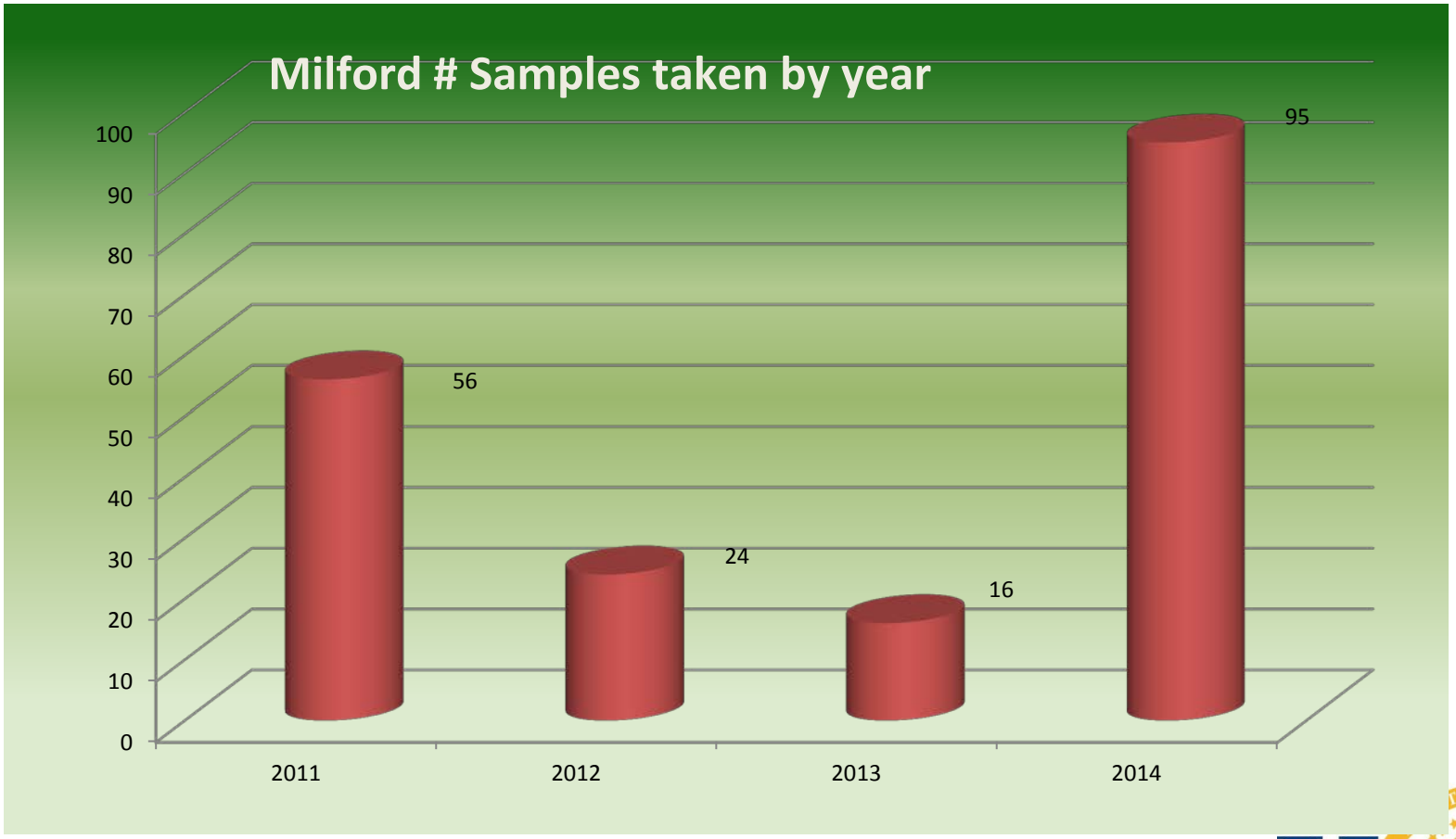
KDHE HAB Sampling 2014
Milford Lake



KDHE HAB Sampling 2014
Milford Lake

Sample site	2011	2012	2013	2014
AA	11	2	5	19
AB	11	8	4	19
AC	11	6	4	19
AD	11	6	1	18
AE	11	2		4
AF	1		1	2
AG			1	1
AH				13
Total	56	24	16	95

KDHE HAB Sampling 2014
Milford Lake



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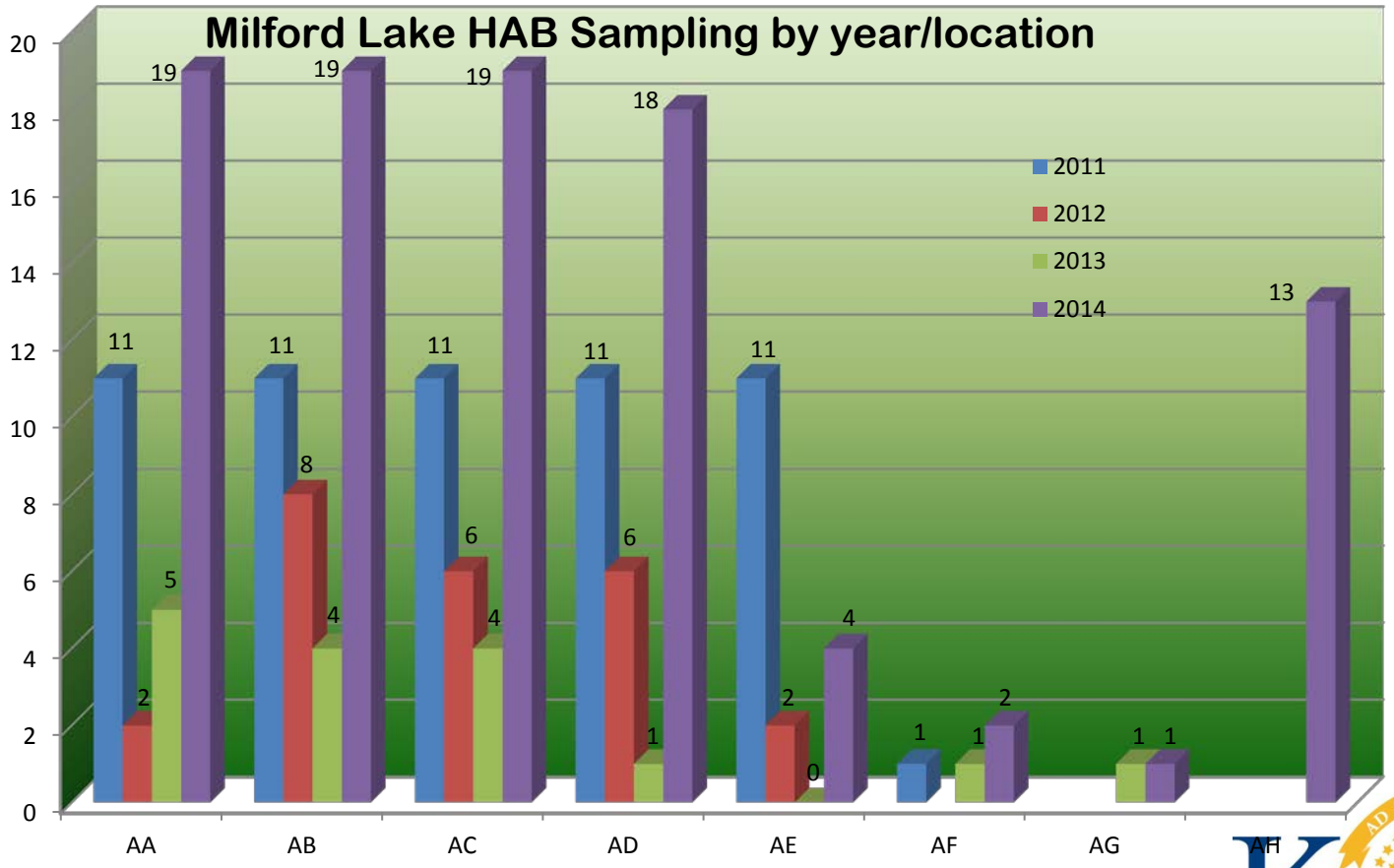

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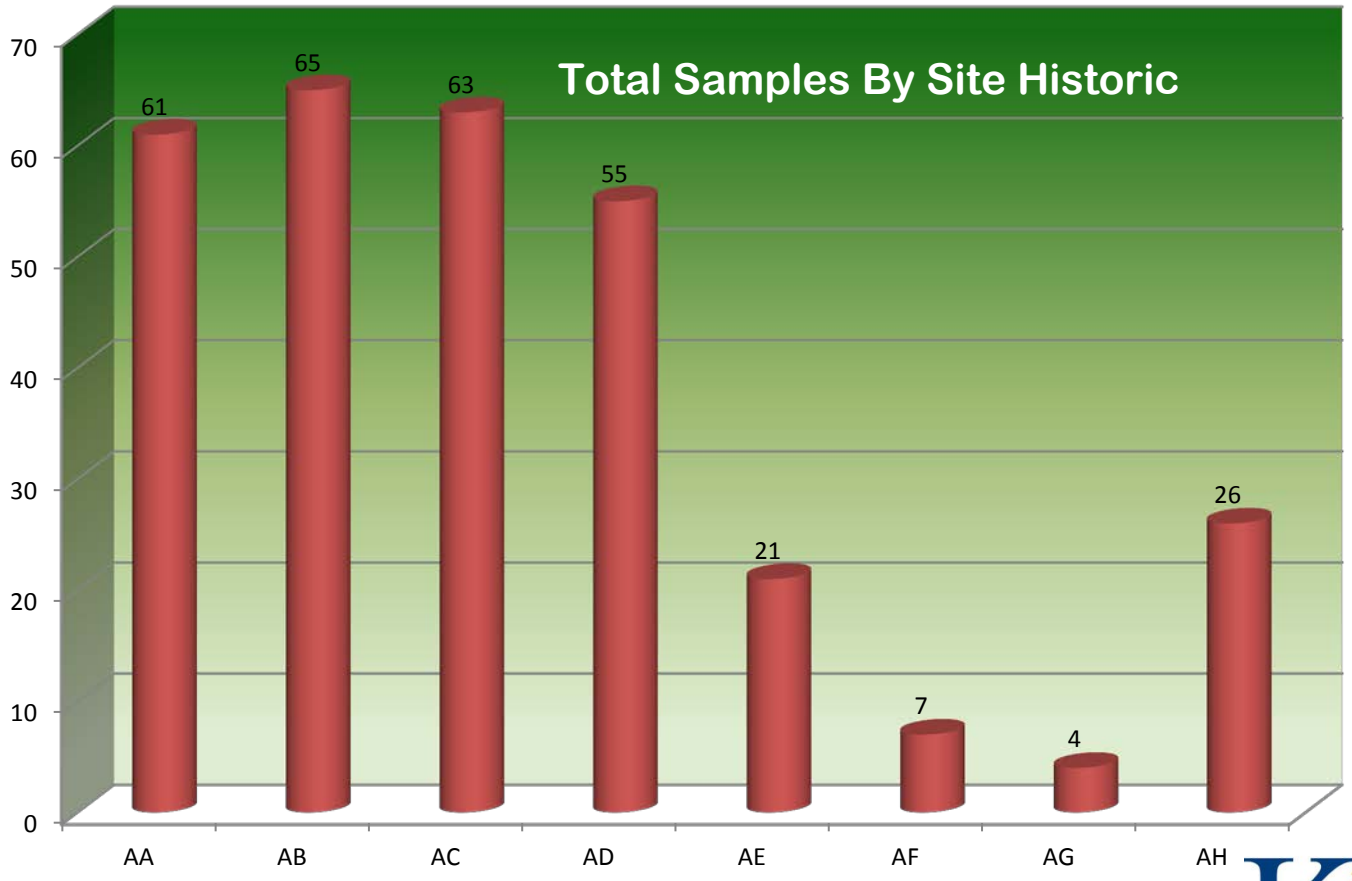
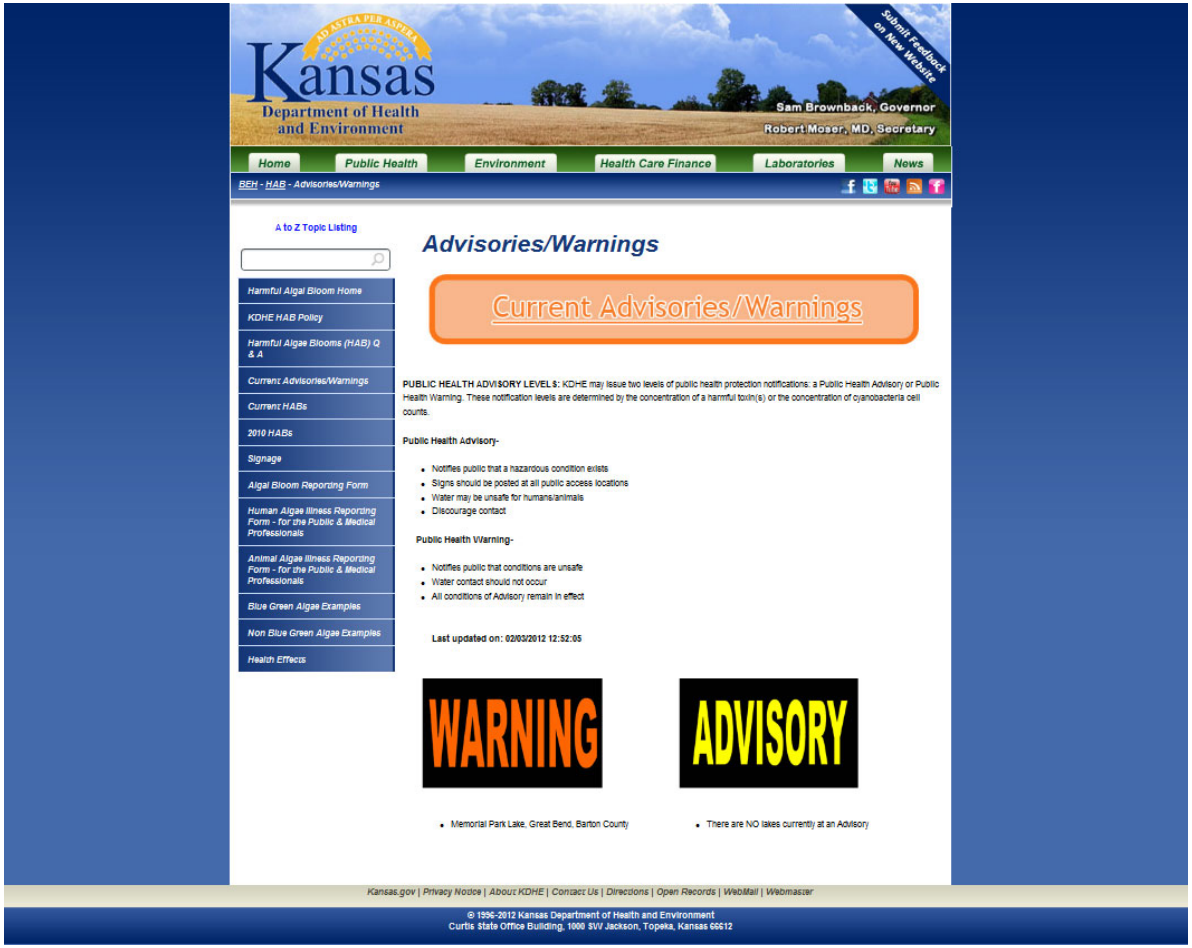


Human and Animal Illnesses

Year	Dog Deaths	Dog Illness	Human Illnesses	Warning or Advisory in effect
2011	7 confirmed		36 reported 12 probable	Yes
2012	0	Suspect 1	5 probable 1 suspect	Yes
2013	1	Confirmed 0 Probable 1 Suspect 2	1 suspect	Lake manager notified following report of dog death
2014	0	0	2 reported 2 presumed	samples collected after illness reports; Advisory issued

BGA in Kansas Website



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Thank you!

Questions