

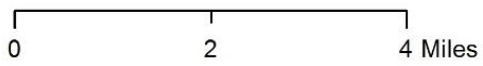
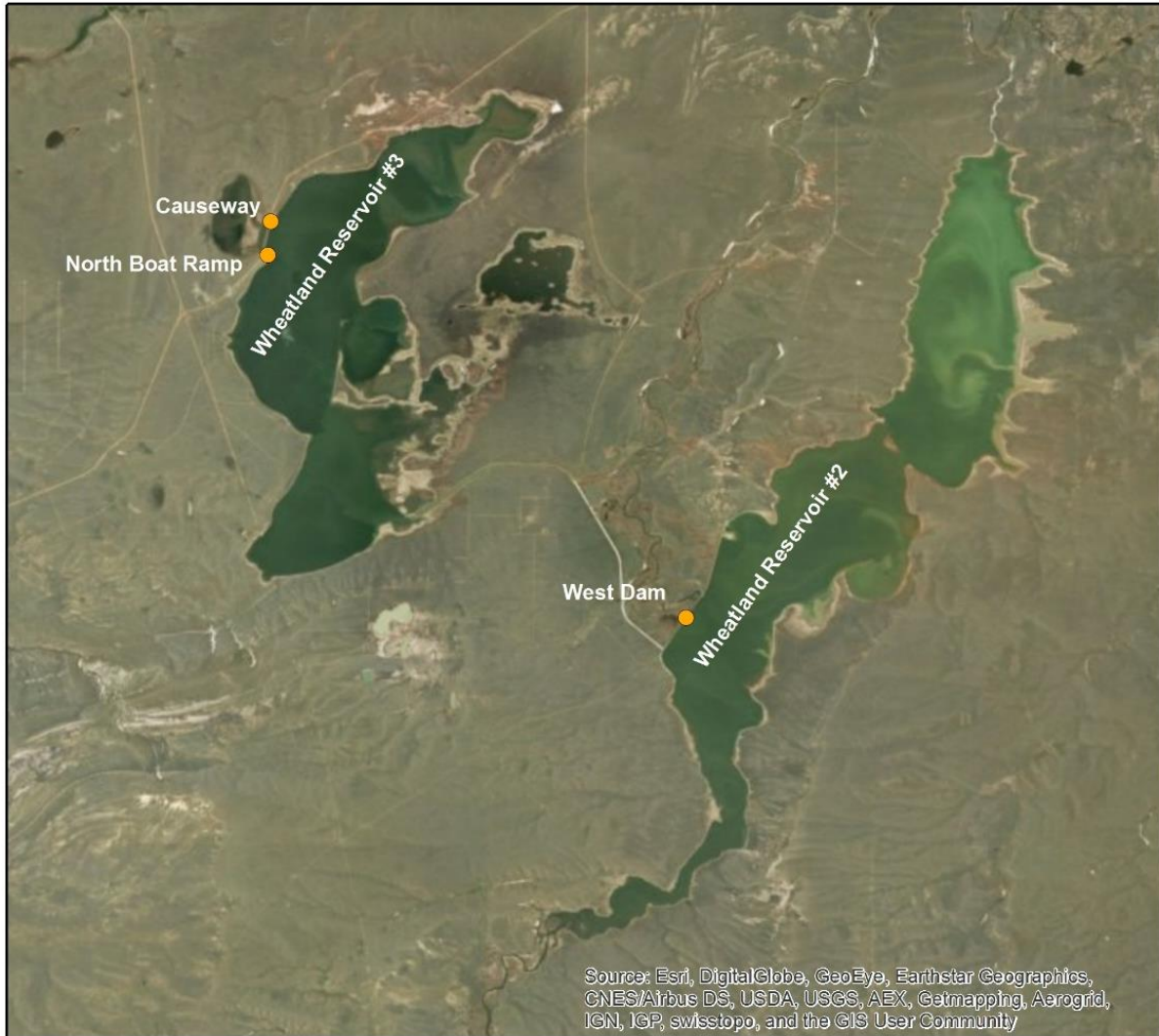
Wheatland Reservoir #2 Harmful Algal Bloom Investigation 2018

Waterbody Information	
Waterbody Name	Wheatland Reservoir #2
Waterbody Type	Lake/Reservoir
Waterbody Size	6,512 acres
County	Albany
Management Agency	Private landowner
Irrigation District	Wheatland Irrigation District
Drinking Water Intake	No
HCB Advisory Information	
Date Issued by WDH	August 23, 2018
Date Lifted by WDH	October 22, 2018
Cyanobacteria Threshold	20,000 cells/mL
Cyanotoxin Threshold(s)	10.0 µg/L total microcystins
Sample Data	
Sample Date	August 15, 2018
Sample Location	West Dam (41.834431, -105.642317)
Cyanobacteria Density	5,096,699 cells/mL
Dominant Taxon	<i>Dolichospermum circinale</i>
Total Microcystins	5,750 µg/L
Initial Complainant	Private landowner

Summary

On August 14, 2018, the Wyoming Department of Environmental Quality (DEQ) was notified by the Wyoming Game and Fish Department (WGFD) that a landowner at Wheatland Reservoir #2 was concerned about exposure of livestock to cyanobacteria. On August 15th, DEQ visited Wheatland Reservoir #2 and observed dense accumulations of cyanobacteria at the West Dam. DEQ collected samples for cyanobacteria and cyanotoxin analyses. On August 20th, DEQ received results that average cyanobacteria cell densities exceeded the 20,000 cells/mL recreation use threshold identified in the [Wyoming Harmful Algal Bloom Action Plan](#) (Action Plan). DEQ relayed these results to WDH on August 23rd and a recreational use advisory was issued for Wheatland Reservoir #2. On August 24th, DEQ received results that average total microcystins at the West Dam significantly exceeded the 10 µg/L recreational use threshold and relayed these results to WDH. On October 22nd, DEQ reviewed visual evidence provided by the Wheatland Irrigation District and confirmed that the blooms had dissipated in the reservoir. DEQ relayed this information to WDH and WDH lifted the recreational use advisory.

Map 1. Sample sites at the Wheatland Reservoir #2 and #3 complex.



● Sample Location(s)

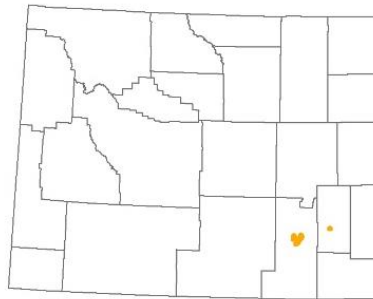




Figure 1. Wheatland Reservoir #2 - Cyanobacteria along West Dam shoreline



Figure 2. Wheatland Reservoir #2 - Cyanobacteria along West Dam shoreline

Table 1. Cyanobacteria Identification and Enumeration Results

Location	Date	Taxon	Average Density (cells/mL)	Total Average Density (cells/mL)
West Dam	8/15/2018	<i>Dolichospermum circinale</i>	4,070,620	5,096,699
		<i>Aphanizomenon flos-aquae</i>	1,026,079	

Table 2. Cyanotoxin Enzyme-Linked Immunosorbent Assay (ELISA) Results

Location	Date	Total Microcystins (µg/L)
West Dam	8/15/2018	5,750