

General strategy for HCBs in publicly accessible lakes and reservoirs of Wyoming.

Evaluation	Responsive Action
<p>Step 1: Observation and Reporting</p>	<ul style="list-style-type: none"> WDEQ, WDH and WLB will issue a press release at the beginning of the HCB season to remind the public of the health risks associated with HCBs as well as how to identify and report HCBs. WDEQ and/or cooperators should visually inspect publicly accessible lakes and reservoirs during the primary recreation season (see WyoHCBs.org for photos of Wyoming HCBs). WDEQ will also use satellite imagery, if available, to monitor lakes and reservoirs for HCBs. In the event of a bloom or a suspected HCB, report to WDEQ using the <i>Report a Spill</i> hotline at WyoSpills.org or (307) 777-7501.
<p>Step 2: Optional Preliminary Screening</p>	<ul style="list-style-type: none"> WDEQ or a cooperator can use optional jar and/or stick tests¹ to determine if cyanobacteria are present in a bloom or field test strips to determine if cyanotoxins are present. If tests are indicative of cyanobacteria or cyanotoxins, or the waterbody is known to have had HCBs in the past¹, the resource management agency may choose to place a HCB sign at the water body to inform recreationalists of potential health risks if a permanent HCB sign is not already in place. If field test strips indicate that cyanotoxins are present in reservoirs with a drinking water intake, cooperators should notify WDEQ. WDEQ will then notify the public water supply and EPA².
<p>Step 3: Sample Collection, Analysis and Issuing Advisories</p>	<ul style="list-style-type: none"> WDEQ or a cooperator should collect four water samples¹ for laboratory analyses: (1) one sample for cyanobacteria identification and enumeration; (2) one sample for microcystin and cylindrospermopsin analysis; (3) one sample for anatoxin-a analysis; (4) and one sample for saxitoxin analysis. Samples should be collected and shipped per WDEQ Standard Operating Procedures¹. If analyses indicate cyanobacteria densities $\geq 20,000$ cells/mL, total microcystin concentrations ≥ 8 µg/L or cylindrospermopsin concentrations ≥ 15 µg/L, WDEQ will notify WDH and WDH will issue an advisory. WDH will determine whether concentrations of anatoxin-a, saxitoxin or other conditions warrant issuance of an advisory. When an advisory is issued, WDH will inform the resource management agency and local health authorities. WDEQ will notify local county coordinators. WDH will coordinate posting of signs by the resource management agency, local health authorities and/or local county coordinators if a permanent HCB sign is not already in place. WDEQ will add the lake or reservoir to the list of current advisories on the WyoHCBs.org webmap. Due to potential impacts to migratory birds, fisheries and other wildlife, WDEQ will notify USFWS and WGFD when an advisory has been issued. If cyanotoxin levels exceed drinking water thresholds in water bodies that may impact drinking water supplies, WDEQ will notify the public water supply and EPA².
<p>Step 4: Monitoring and Lifting Advisories</p>	<ul style="list-style-type: none"> All advisories will remain in place until either (1) a bloom has fully dissipated and cyanotoxin concentrations are below the threshold values or (2) the primary contact recreation season ends on September 30th. For an advisory to be lifted prior to September 30th, WDEQ will determine if the bloom has fully dissipated based on visual evidence and satellite imagery, if available. Once cyanotoxin samples confirm safe concentrations, WDEQ will report results to WDH and WDH will lift the advisory. On September 30th, WDH, WDEQ and WLB will issue a press release and listserv notice describing that (1) any remaining advisory have been lifted, (2) WDEQ is no longer monitoring for HCBs, (3) HCBs may continue to be present in Wyoming surface waters in the cooler months, and (4) recreationists should continue to avoid HCBs due to the potential health risks. Once WDH has lifted an advisory, any temporary HCB signs may be removed by the resource management agency, local health authorities and/or local county coordinators. WDEQ will remove the lake or reservoir from the list of current advisories on the WyoHCBs.org webmap. WDH may issue a closure at any time during the process based on the threat to public health.

Abbreviations: EPA, US Environmental Protection Agency; WDEQ, Wyoming Department of Environmental Quality; WDH, Wyoming Department of Health; WGFD, Wyoming Game and Fish Department; WLSB, Wyoming Livestock Board; USFWS, United States Fish and Wildlife Service.

¹ See WyoHCBs.org for resources for management agencies, including signs, sampling procedures, information on publicly accessible lakes and reservoirs (e.g., contact information, past HCB occurrence, use as a public water supply, etc.).

² EPA implements the Safe Drinking Water Act in the State of Wyoming.