

TABLE 8.3. GUIDELINES FOR SAFE PRACTICE IN MANAGING RECREATIONAL WATERS<sup>a</sup>

Guidance level or situation	How guidance level derived	Health risks	Typical actions <sup>b</sup>
<b>Relatively low probability of adverse health effects</b>			
20 000 cyanobacterial cells/ml or 10 µg chlorophyll-a/litre with dominance of cyanobacteria	<ul style="list-style-type: none"> <li>From human bathing epidemiological study</li> </ul>	<ul style="list-style-type: none"> <li>Short-term adverse health outcomes, e.g., skin irritations, gastrointestinal illness</li> </ul>	<ul style="list-style-type: none"> <li>Post on-site risk advisory signs</li> <li>Inform relevant authorities</li> </ul>
<b>Moderate probability of adverse health effects</b>			
100 000 cyanobacterial cells/ml or 50 µg chlorophyll-a/litre with dominance of cyanobacteria	<ul style="list-style-type: none"> <li>From provisional drinking-water guideline value for microcystin-LR<sup>c</sup> and data concerning other cyanotoxins</li> </ul>	<ul style="list-style-type: none"> <li>Potential for long-term illness with some cyanobacterial species</li> <li>Short-term adverse health outcomes, e.g., skin irritations, gastrointestinal illness</li> </ul>	<ul style="list-style-type: none"> <li>Watch for scums or conditions conducive to scums</li> <li>Discourage swimming and further investigate hazard</li> <li>Post on-site risk advisory signs</li> <li>Inform relevant authorities</li> </ul>
<b>High probability of adverse health effects</b>			
Cyanobacterial scum formation in areas where whole-body contact and/or risk of ingestion/aspiration occur	<ul style="list-style-type: none"> <li>Inference from oral animal lethal poisonings</li> <li>Actual human illness case histories</li> </ul>	<ul style="list-style-type: none"> <li>Potential for acute poisoning</li> <li>Potential for long-term illness with some cyanobacterial species</li> <li>Short-term adverse health outcomes, e.g., skin irritations, gastrointestinal illness</li> </ul>	<ul style="list-style-type: none"> <li>Immediate action to control contact with scums; possible prohibition of swimming and other water contact activities</li> <li>Public health follow-up investigation</li> <li>Inform public and relevant authorities</li> </ul>

<sup>a</sup> Derived from Chorus & Bartram, 1999.

<sup>b</sup> Actual action taken should be determined in light of extent of use and public health assessment of hazard.

<sup>c</sup> The provisional drinking-water guideline value for microcystin-LR is 1 µg/litre (WHO, 1998).