Algae are a normal part of the ecological cycle in warm surface waters and appear naturally every spring and summer in lakes and reservoirs and throughout the nation, including Calaveras County. One group of organisms known as cyanobacteria (blue-green algae), however, is a concern because some species produce toxic compounds called cyanotoxins. When cyanobacteria increase in abundance they form a harmful algal bloom (HAB). More information about HABs can be found on the California HABs portal.

Young children and dogs are at higher risk to cyanotoxin exposure because they are more likely to consume water while they are wading and swimming, often stay in the water longer than adults, and have a smaller body size than adults. Livestock have also been impacted by cyanotoxin poisonings after drinking water from a lake or pond experiencing a cyanobacterial bloom.

Recently, greener water and cyanobacteria have been observed in the Camp Nine area of New Melones Reservoir (Figure 1). The US Bureau of Reclamation, Calaveras and Tuolumne County Environmental Health, and the State Water Boards are tracking the situation and will collect samples if the bloom worsens. Bloom awareness signs have been posted at New Melones, and we encourage visitors to all water bodies to practice healthy water habits at all times.

Potential Health Effects
Common health effects for humans exposed to cyanobacteria include rashes or other skin irritation, allergy-like reactions, runny nose or sore throat. If ingested in large amounts, symptoms could include in some cases, sharp severe stomach aches, diarrhea and vomiting, liver damage, numb limbs, tingling fingers and toes, and dizziness. More information about health impacts from cyanobacteria and resources for medical professionals can be found on the CA HABs Portal: https://mywaterquality.ca.gov/habs/resources/human_health.html.

Dogs are especially susceptible to cyanotoxin exposure because they tend to drink while in the water and lick their fur afterward, increasing their risk of exposure and illness. Symptoms with animals include vomiting or diarrhea, lethargy, abnormal liver function test results, difficulty breathing, foaming at the mouth, muscle twitching and sometimes death. More information about health impacts for domestic animals and livestock can be found on the portal's Domestic Animals webpage.
Identifying Blue-Green Algae
There is no local monitoring program for blue-green algae in Calaveras County, but heavy cyanobacterial blooms are typically readily visible. They are often described as looking like pea soup or spilled paint on the surface and can also produce a swampy odor when the cells break down. A helpful guide for distinguishing between a blue-green algae bloom and non-harmful algae blooms can be found at this link: https://mywaterquality.ca.gov/habs/what/visualguide_fs.pdf.

Other times, lighter blooms may be less easy to detect, floating beneath the surface or on the bottom of a water body. The best advice is to check with the local recreational or water body manager and inquire if they are aware of any harmful algal blooms occurring. The Water Boards incident response map shows the location and information of bloom reports across the State submitted to the Water Boards.

Finally, if something doesn't look right in the water, notify the local recreational or water body manager and report a potential bloom to the Water Boards and remember the following: “When in doubt, it’s best to stay out.”

Useful information, including the latest blooms reported to the Water Board and how a bloom can be detected can be found on the State Water Board’s Harmful Algae Bloom Portal: https://mywaterquality.ca.gov/habs

Recommended Precautions
If you are concerned that a bloom might be present, here are some common precautions, or healthy water habits, that all water users should follow to stay safe when visiting a water body:

- Heed all instructions on posted advisories if present
- Avoid algae and scum in the water and on shore
- Keep an eye on children and pets (dogs)
- If you think a HAB is present, do not let pets and other animals go into or drink the water, or eat scum and algal accumulations on the shore
- If you think a HAB is present, reduce potential for inhalation of sprays or mists by avoiding areas downwind of the bloom, and activities near the bloom that could kick up spray, such as boating at higher speeds, water skiing, or splashing.
- Don’t drink the water or use it for cooking
- Wash yourself, your family, and your pets with clean water after water play
- If you catch fish, throw away guts and clean fillets with tap water or bottled water before cooking
- Avoid eating shellfish if you think a HAB is present

To report a bloom, do one of the following:
- Fill out the Bloom Report form on the portal
- Email: CyanoHAB.reports@waterboards.ca.gov
- Call the HABs hotline: 1-844-729-6466 (toll free)
- Contact your County Public Health Office
  - Calaveras County Environmental Health Department: 209-754-6399
  - Tuolumne County Environmental Health Department: 209-533-5990
Figure 1. Aerial imagery of New Melones Reservoir at Camp Nine. The water becomes greener downstream of the log jam and Camp Nine bridge.