



## Algae Fact Sheet

### Where are algae?

- Algae are a common form of bacteria found naturally in marine and freshwater environments.
- They produce their own food through photosynthesis and are vital for the well-being of marine and fresh-water ecosystems.

### When do algae bloom?

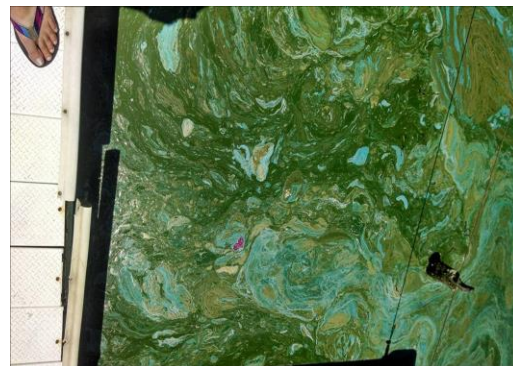
- Conditions for algae blooms are ideal when there is an oversupply of nutrients in a lake, such as phosphorus and nitrogen, high temperatures, low oxygen levels in the water, little water movement, and low water levels.
- Algae blooms result when phytoplankton, organisms living on water surfaces, reproduce exuberantly and cause dense buildups.
- In a balanced ecosystem, phytoplankton are food base for organisms. However, with an oversupply of nutrients, they experience excessively high growth rates that result in algal blooms.

### Are algae bad for the lake?

- In a balanced ecosystem, most algae are conducive to a healthy water body that sustains itself.
- However, **excessive algae growth** reduces water clarity, releases a strong odor, and suffocates aquatic life forms by depleting oxygen levels and blocking sunlight.

### What are Blue-Green Algae (BGA)?

- While BGA looks very similar to normal algae, it is actually not an algae at all, but a **cyanobacteria** naturally found in fresh water and salt.
- Similar to algae, cyanobacteria uses photosynthesis, as well as nitrogen and phosphorus as food.
- Not all BGA blooms are harmful, as only **very specific** strains produce toxins that can cause moderate to severe harmfulness in humans and animals.
- Toxicity of the algae bloom cannot be detected by simple observation and requires a collection of water samples and lab analyses.



### What should resident do when they see an algae bloom?

- Refrain from going into water that is foamy, scummy, pea-green, blue-green, brownish red, or looks like floating paint. When in doubt, stay out!
- Keep pets and children away from playing in or drinking the water until the algae bloom subsides and drops to the lake bottom. If pets swim in water tinged with algae bloom, rinse them off immediately.
- Water with mats of algae should not be used for cooking even if it is filtered or boiled.

### Will the alum treatments being applied to Canyon Lake help reduce algae blooms?

- The alum treatments are designed to reduce the phosphorus levels in Canyon Lake often released back into the water column as well as the existing phosphorus in the lake water.
- Since phosphorus is a critical element needed for algae to bloom, it is believed that the alum treatments will help reduce algae production.

### Why isn't alum being applied to Lake Elsinore as well?

- Lake Elsinore is a much larger lake than Canyon Lake with a higher cost. A higher PH level would result in a higher dosage causing uncertain changes to the lake ecology.
- The City of Lake Elsinore conducts samples to monitor the safety of the lake.
- Lake experts deemed aeration and a mixing system as the best strategy for improving water quality at Lake Elsinore.