

# DELTA SCIENCE FELLOW 2020

CHELSEA LAM



## PROJECT

Pesticide and nutrient inputs from human activities are present in the Delta, but the impact of these stressors together on algae is not well known. My research will examine the impacts of herbicides and nutrients on the growth and stress responses of phytoplankton and cyanobacteria present in the San Francisco Estuary.

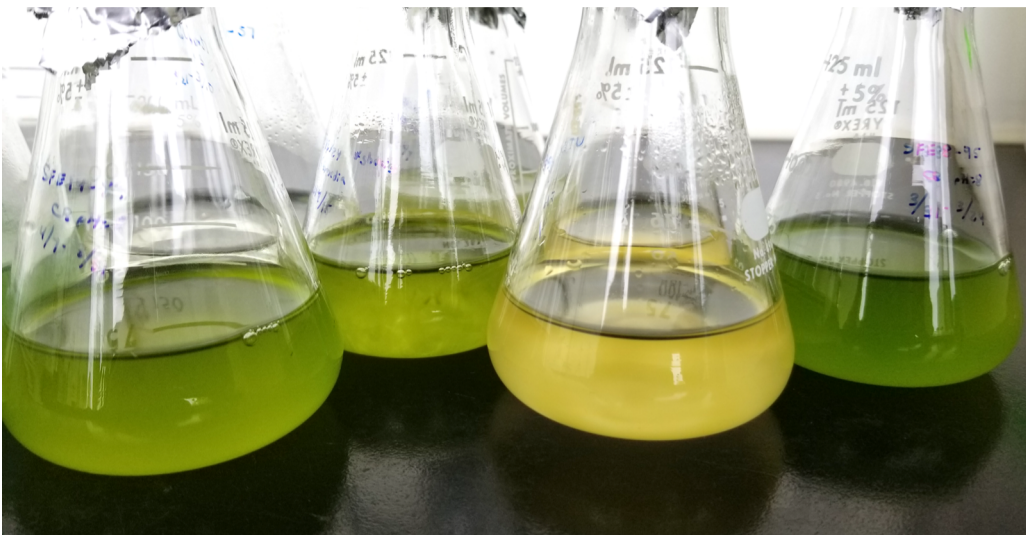
## TIMELINE

**2020-2021** Complete herbicide testing and begin herbicide-nutrient combination testing.

**2021-2022** Complete tests and communicate findings.

## IMPACTS

The algae in the Delta are diverse with critical ecological effects, ranging from toxin-producing cyanobacteria that form hazardous algal blooms to benthic diatoms and green algae that make up the bulk of the aquatic food web. Contaminants and herbicides can cause changes in algae cellular health which may impact population growth. Understanding algal sub-lethal stress responses will improve our understanding of stressors on the Bay-Delta food web and bloom formation.



**Doctoral Fellow** *University of California, Davis*

**Focus** Phytoplankton and cyanobacteria growth and response to stressors

**Award** \$149,342

### Research Mentor

Dr. Swee J. Teh, *UC Davis*

### Community Mentor

Dr. P.W. Lehman,  
*Department of Water Resources*

“I hope the results of this project add to [biological] knowledge so that we can continue to better manage contaminants and nutrients for ecosystem sustainability and health.”



DELTA STEWARDSHIP COUNCIL  
DELTA SCIENCE PROGRAM

