

Central Davis Sewer District Algal ID and Enumeration Report

Prepared: September 11, 2025

Prepared By: GreenWater Laboratories

Samples: 2 (Collected on 3/27/23)

1. FB1
2. FB4

Sample 1: FB1

Total cell numbers in the FB1 sample collected on 3/27/25 were 171,216 cells/mL. Green algae (Chlorophyta; 127,727 cells/mL) was the most abundant algal group in the sample accounting for 74.6% of total cell numbers. Other algal groups in the sample were diatoms (Bacillariophyceae; 6,030 cells/mL), golden-brown algae (Chrysophyceae; 23,998 cells/mL), cryptophytes (Cryptista; 727 cells/mL), blue-green algae (Cyanobacteria; 520 cells/mL), euglenophytes (Euglenophyta; 215 cells/mL) and unknown algae (Unknown; 11,999 cells/mL). The most abundant alga in the sample was the colonial chlorophyte *Lobocystis* sp. (38,179 cells/mL; Fig. 1). A total of 72 species were observed in the sample with green algae the most diverse group with 46 taxa.

Total cell numbers of potentially toxigenic cyanobacteria (PTOX Cyano) were 460 cells/mL (0.3% of total cell numbers). PTOX Cyano species observed in the sample included *Phormidium/Planktothrix* sp. (460 cells/mL; Fig. 2).

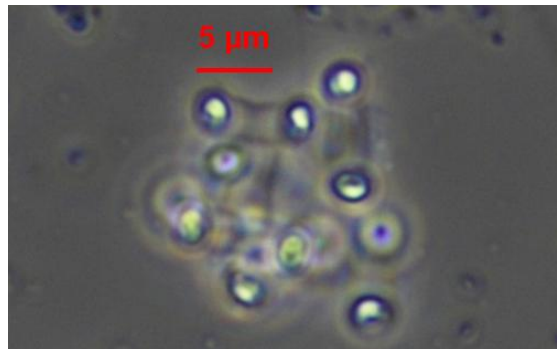


Fig. 1 *Lobocystis* sp. 600X (scale bar = 5 μ m)

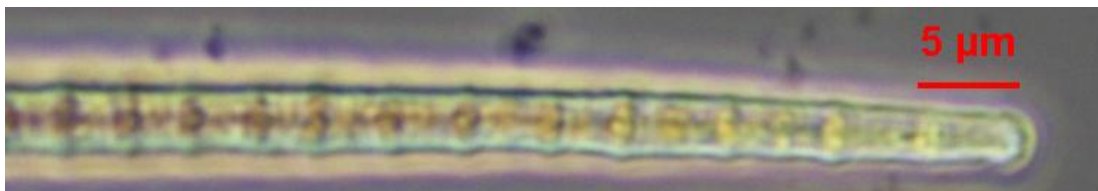


Fig. 2 *Phormidium/Planktothrix* sp. 600X (scale bar = 5 μ m)

Sample 2: FB4

Total cell numbers in the FB4 sample collected on 3/27/25 were 240,122 cells/mL. Green algae (Chlorophyta; 221,304 cells/mL) was the most abundant algal group in the sample accounting for 92.2% of total cell numbers. Other algal groups in the sample were diatoms (Bacillariophyceae; 6,670 cells/mL), golden-brown algae (Chrysophyceae; 1,212 cells/mL), cryptophytes (Cryptista; 1,818 cells/mL), blue-green algae (Cyanobacteria; 1,555 cells/mL), euglenophytes (Euglenophyta; 290 cells/mL) and unknown algae (Unknown; 7,272 cells/mL). The most abundant algae in the sample were unicellular picochlorophytes (124,233 cells/mL; Fig. 3). A total of 91 species were observed in the sample with green algae the most diverse group with 53 taxa.

Total cell numbers of potentially toxigenic cyanobacteria (PTOX Cyano) were 246 cells/mL (0.1% of total cell numbers). PTOX Cyano species observed in the sample included *PhormidiumPlanktothrix* sp. (219 cells/mL; Fig. 4) and *Phormidium* sp. (27 cells/mL; Fig. 5).

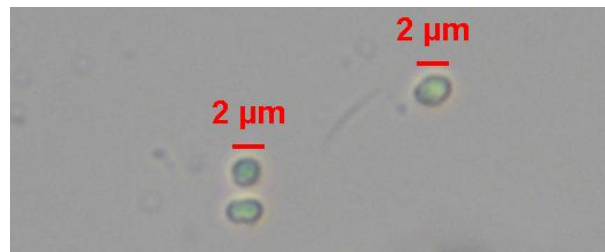


Fig. 3 picochlorophytes 600X (scale bar = 2 μ m)

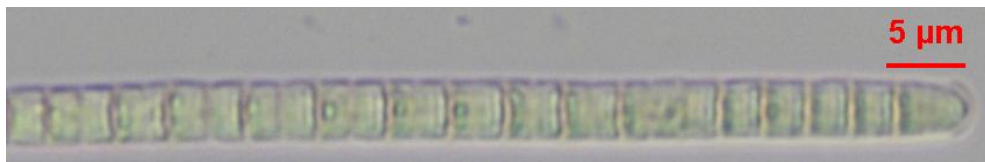


Fig. 4 *Phormidium/Planktothrix* sp. 600X (scale bar = 5 μ m)

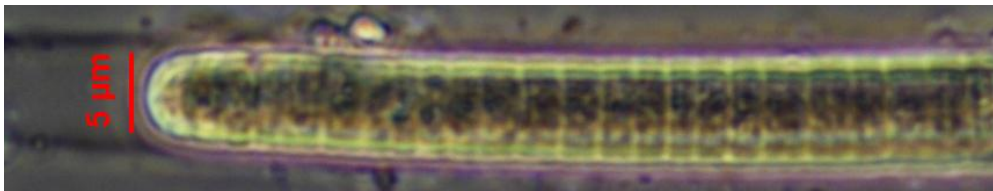
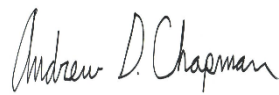


Fig. 5 *Phormidium* sp. 600X (scale bar = 5 μ m)

Submitted by:



Andrew D. Chapman, M.S.

Date:

9/11/2025

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