

DISTRICT OF LAKE COUNTRY (\$30,000)

PROJECT TITLE: DEEP LAKE BIOLOGY STUDY, OKANAGAN LAKE

CONTACT PERSON: HEATHER LARRATT, LARRATT AQUATIC CONSULTING

Larratt Aquatic embarked on this study at the request of numerous Okanagan water suppliers and organizations to fill a data gap on the algae and bacteria in Okanagan Lake waters for intake depths and deeper. It would assist planning for optimal intake depths and for future water treatment. Letters of support from IHA, MoE, KJWC, WJWC, GVS were obtained. RDCO has endorsed this application and Lake Country is the sponsoring agency.



Example of Blue green algae species Anabaena flos-aque

This study involves both a research and a sampling component:

Research Component:

- cyanotoxin analysis and deactivation/treatment
- chronic low dose exposure to cyanotoxins
- review of Okanagan Lake limnology including creek plume and outfall behavior
- verification of algae identifications by Dr. J. Stockner, who has received preserved samples from the first two sampling trips

Sampling Component

- all water suppliers with Okanagan Lake intakes are participating (10) They provide monthly samples from their intakes (15) and receive their results within 5 days of sampling, flagged if there was cause for immediate concern.
- Two of four sample collection trips to the North, Central and South basins are completed. Samples were collected at 10 m intervals; composite depth samples were also collected for MoE
- dissolved oxygen/temperature profiles, results from the GEID thermistor chain and secchi depth were also collected.
- E. coli samples were collected at 10 m intervals and from the three intakes with capability to collect in-stream raw water samples

The project is assessed to be progressing according to timelines given in the application and will be complete by April 2009.

