

CLA targeting phosphorus

Posted: Wednesday, Mar 24, 2010 - 10:07:08 am PDT

By KEITH KINNAIRD

News editor

COCOLALLA — The Cocolalla Lake Association is contemplating a cutting-edge proposal to control algae growth in the lake with a bentonite clay infused with lanthanum.

"We're trying to do something here that hasn't been done before," Cocolalla Lake Association President Chuck Gladish said.

The proposal will be the focus of a public meeting on Thursday at Southside Elementary School. It starts at 7 p.m.

If the proposal wins approval from state and federal regulators and funding can be secured, Gladish said it would be the first time the Phoslock technology would be deployed in the U.S.

"We have high hopes, but of course there are hurdles to go through — regulatory agencies, money, the whole thing," he said.

Officials from the Australia-based Phoslock Water Solutions Ltd. will be on hand at the meeting to explain how their product works in controlling phosphorus. Representatives from state and federal agencies have also been invited.

A 1995 diagnostic study conducted by the Idaho Department of Environmental Quality found that 23 percent of the phosphorus loading in Cocolalla Lake was internally generated from the anoxic and aerobic sediments in the lake, in addition to macrophyte decay.

The department has suggested that reducing internal phosphorus loads would greatly stunt algae growth, which would reduce or eliminate oxygen-depleted conditions in the lake.

Enter Phoslock.

Phoslock, which can be applied to the water in granular or slurry form, sinks through the water column and takes up filterable reactive phosphorus as it descends, according to the company. It settles into a fine, permeable layer on the bottom of the lake, where the rare earth element lanthanum continues to bind to phosphorus that is released from sediments over time.

Phosphate removed from the water binds with the lanthanum to form the insoluble mineral rhabdophane.

"By reducing phosphorus in the water body, there is less available food for algae, hence decreasing algal concentrations over time," Phoslock's treatment proposal indicates.

Phoslock is recommending nearly 550 metric tons of its product to remove all immediately and potentially bio-available phosphorus in the lake.

Gladish said the lake association hopes to launch the project in the next couple of years if it can win permit approval and secure the vast amount of funding the project would need.

"It's worth it, we think, if we can get the support," he said.