

Phoslock would starve algae

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COCOLALLA — Treating Cocolalla Lake with a product that sequesters phosphorus and thwarts algae blooms could cost anywhere from \$800,000 to \$1 million, according to officials from Phoslock Water Solutions.

The Cocolalla Lake Association hosted a meeting Thursday with officials from the Australian company, which has commercialized a bentonite clay product that absorbs phosphorus in order to starve blue-green algae.

A recurring theme in the discussion centered around what Phoslock is not.

"Phoslock is not a biocide or algaecide," said Sarah Groves, the company's technical director.

It is not composed of elements foreign to the environment or toxic to fish, wildlife or humans unless ingested in cartoonishly high doses, Groves said. Phoslock also does not accumulate in the tissue of fish.

Phoslock is composed almost entirely of an absorbent clay that serves as a carrier for the product's active ingredient lanthanum, a naturally-occurring element that has commercial and medical uses.

Once applied, the Phoslock granules descend down through a body of water and the lanthanum puts phosphorus in a headlock en route. The element fuses with the nutrient to form rhabdophane, an inert and insoluble mineral.

The material settles to form a fine, permeable layer on the bottom, where it goes to work on filterable reactive phosphorus being released by sediments in the lake. The layer does not affect bottom-dwelling life forms or inhibit aquatic plant growth, Groves said.

The aim of Phoslock is to keep phosphorus from fueling blue-green algae blooms.

"You're breaking the cycle of the algae," said Groves.

Since 2008, the Panhandle Health District and the Idaho Department of Environmental Quality have advised the public not to swim in Cocolalla or drink its water when the blooms are present.

Exposure to high concentrations of blue-green algae can cause gastroenteritis, skin irritation, allergic responses or even liver damage, according to the Centers for Disease Control. The algae is also immune to filtration or boiling.

It was also emphasized during the meeting that Phoslock is not without a pedigree.

The product was developed by Australian government's Commonwealth Scientific and Industrial Research Organization, commercialized in 2002 and has since undergone rigorous scientific review in Europe and Canada.

"It's been stretched, poked and prodded in all parts of the world," said Robert Schuitema, Phoslock's CEO.

Preliminary data from Cocolalla suggests nearly a million pounds of the product would need to be applied to bridle the prolific nutrient the 800-acre lake.

Cost was a big question heading into the meeting, but the answers to two more questions remain unclear — domestic regulatory approval and funding sources.

“It’s a great solution if we can get through some primary hurdles,” said Chuck Gladish, president of lake association.

- More information can be found on the Web (www.cocolallalakeidaho.com)