

Acidification risk increasing in Currency Creek and the Finniss River

The threat of acidification in the Currency Creek, Finniss River and Goolwa Channel area is increasing despite recent rainfall, Department for Environment and Heritage (DEH) chief executive Allan Holmes says.

More than 20,000 hectares of acid sulfate soils have been exposed throughout the Lower Lakes region because of drought and falling water levels.

"The State Government has received advice from a wide range of scientists, from organisations including the CSIRO, the University of Adelaide and the Murray-Darling Basin Authority, about the extent of the acidification risk and how to best manage it," Mr Holmes said.

"Our advice from these experts consistently confirms that the acidification risk is increasing and that the best way to reduce that risk is to keep acid sulfate soils submerged or saturated.

"The CSIRO advises that Currency Creek and the Finniss River are the areas at greatest immediate risk, with several 'hotspots' because of vast areas of acid sulfate soils exposed to air last summer.

"The current problem is that when acids accumulated in the soil mix with inflows from recent rains, the acids are washed into the water creating the potential for acidic flows down the Currency and Finniss tributaries into the Goolwa Channel.

"The idea that the recent rainfall and flows into the Goolwa Channel have diluted the acid in the water, or diminished the threat posed by the exposed acid sulfate soils, is incorrect.

"The latest Currency Creek and Finniss River water quality report, which is available on the EPA website at www.epa.sa.gov.au/lower_lakes.html, shows that pH levels and alkalinity are declining in most locations, meaning the acidification risk is increasing."

The State Government has a number of projects under way to manage this risk:

- **Liming.** The addition of limestone to tributary catchments, and the construction of temporary limestone barriers across Currency Creek, has enabled some acid to be neutralised. However, after a short time acid levels have increased as more is flushed out by rainfall and river flow.
- **Goolwa Channel Regulators Project.** Flow regulators being constructed in the Goolwa Channel area will raise water levels, limiting the exposure of acid sulfate soils to the air and providing an ecological refuge.
- **Revegetation.** About 300 hectares of shallow-rooted plants have been sown across the Lower Lakes since May to stabilise acid sulfate soils and prevent soil erosion. Revegetation may also prove to be an effective way of reducing the impacts of acid sulfate soils in the Lower Lakes.

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"In the Goolwa Channel area, we are fortunate to have a small supply of freshwater flowing down the tributaries," Mr Holmes said.

"Capturing this water by installing regulators will elevate water levels and significantly reduce the area of acid sulfate soils exposed, thus preventing further acidification from occurring.

"Unless this action is taken, acidification will worsen over the coming summer as water levels continue to fall.

"That's why a combined approach – using the regulators to raise water levels, and limestone to treat any acid water and soils that remain exposed – is the best option for this area."

As part of its *Water for the Future* strategy, the Australian Government has committed up to \$200 million to secure the healthy future of the Coorong and Lower Lakes, through the State Government's *Murray Futures* program.

"As well as undertaking emergency response actions DEH is also developing a long-term plan to help the Coorong and Lower Lakes region adapt to its rapidly changing environment," Mr Holmes said.

"A draft of this plan will be released very soon for public consultation, and we'll be having a series of meetings with local community groups and businesses to make sure we understand their perspective on the different options being put forward."

Fact sheets on acid sulfate soils and management options are available at www.environment.sa.gov.au/cllmm/fact-sheets.html.

For more information about the State Government's management of the Lower Lakes and Coorong, go to www.murrayfutures.sa.gov.au.

