
Wastewater from Antarctic Bases is Affecting Marine Life

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It is estimated that 37 percent of the bases in Antarctica do not treat wastewater, a problem that Australia is seeking to address by sending a sewage treatment plant, which converts wastewater into drinking water, to its Davis base, local broadcaster ABC reported.

Ecologist Jonny Stark, of the Australian Antarctic Division, AAD, said the studies carried out by the organization to evaluate the minimum requirements of the Antarctic Treaty show that "they're probably ineffective in limiting environmental impacts from ocean outfalls."

The negative effects of wastewater extend to over 1.5 kilometers from the point of discharge and in those areas it has been detected that fish have deformities in their gills and livers while seals and penguins have begun to develop resistance to antibiotics.

"I think that's something we should be very concerned about. We don't know what the long-term implications of that might be but it's probably not a good thing," said Stark, who will present the study at a meeting of the parties to the Antarctic Treaty in Chile this week.

At the international event, Australia will also present the plant it will send to treat sewage water at the Davis Station, which has been developed over five years and produces water safe enough to drink, according to its developers.

Stephen Gray, director of the Institute for Sustainability and Innovation at Victoria University, said currently too much energy is being used to heat and desalinate waters in Antarctica to make it drinkable.

"So recycling the wastewater would probably save something like about 70 percent of the energy used to make the drinking water down there," he explains.

Meanwhile, AAD director Nick Gales said he hopes the organization's research and the development of the new

treatment plant will inspire better standards on environmental protection at the meeting in Chile.

"There's very active discussion going on within the treaty at the moment looking at whether those minimum (sewage treatment) standards are sufficient and what those stations in Antarctica should move to," he said.
