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Causes of Eutrophication in an Eastern Florida Costal Lagoon and Possible Solutions

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The state of Florida in the United States is surrounded by coastal estuaries and lagoons which represent important ecosystems for both native species and human settlements. The Indian River Lagoon (IRL) is one such water ecosystem which stretches for 250km along Florida's east coast and is home multiple endangered species. Over the past few decades the IRL has been in a state of decline due to repeated eutrophication events and high nutrient concentrations. Current studies into the health of the IRL ecosystem have shown that there are multiple factors that contribute to the eutrophication of the lagoon, resulting in highly variable harmful algal blooms (HAB). The diverse problems presented in the IRL have resulted in traditional methods of limiting HAB to prove ineffective in preventing the continued decline of this ecosystem. This presentation will go in details of what is causing the eutrophication of the IRL, why these details are important, and what methods might be used in the future to prevent further eutrophication of the IRL and other coastal estuaries.

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