

# Review of: "[Review] Optimizing Wastewater Treatment Performance System and Achieving Greater Efficiency to Improve Water Quality for Sustainability — A Review"

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Potential competing interests: No potential competing interests to declare.

The abstract discusses the importance of wastewater treatment and the challenges associated with water scarcity, pollution, and waste management. While it offers valuable insights, the abstract does not conclude with a summary of key takeaways or recommendations. It would be beneficial to end with a concise statement that highlights the main points discussed in the abstract.

For the introduction the text references several statistics and claims (e.g., "10 million people are dead," "80-90% of water is used for irrigation," "2.45% of the land, 4% of water, and 16% of the population"), but it does not provide proper citations or references. To enhance credibility, all statistics and claims should be properly sourced. Some parts of the text, such as the discussion of nuclear waste or methane release from landfill sites, seem somewhat disconnected from the main topic of water scarcity and wastewater treatment. It would be helpful to maintain a clear focus on the central theme.

There are grammatical concerns in the text. For instance, "10 million people are dead" could be better expressed as "10 million people have died," and "casually discarded banana peel" might need clarification as it doesn't seem directly related to the topic.

Concerning the wastewater treatment methodologies several claims and statistics are mentioned (e.g., "water scarcity increased sixfold in the 20th century"), but there are no references or citations provided to support these.

Herein in the process of wastewater treatment methods: The passage mentions the four steps of wastewater treatment multiple times (preliminary, primary, secondary, and tertiary treatment), which can lead to redundancy. It would be more efficient to describe these steps once and then refer back to them as needed.

While the conclusion touches on several important points, it could be strengthened by reiterating the significance of waste management in preserving water resources, protecting the environment, and ensuring public health.