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Cve 502

Question 1

You have been invited by the current president of Nigeria, general Muhammadu Buhari to make an argument for the optimization of wastewater, briefly discuss your view on this and make visible recommendations.

Answer

The water pollution that is involved in wastewater has a significant effect on both aquatic and terrestrial sustainability. However, accurate modelling of complex system and its cost-effective treatment and reuses choices are very important for optimization process is related to the economic expenditure, social health and environmental deterioration and restoration. Before optimization takes place, we may consider three treatment or reuse options such as microscreening filtration, nitrification, and fertilization-oriented irrigation on top of two existing options such as settling and biological oxidation. The objective of this environmental optimization is to minimize the economic expenditure of life cycle costs while satisfying the public health standard in terms of groundwater quality and the environmental standard in terms of river water quality. Particularly, this study improves existing optimization model by pinpointing the critical deficit location of dissolved oxygen sag curve by using analytic differentiation. Also, the proposed formulation considers more practical constraints such as maximal size of irrigation area and minimal amount of filtration treatment process

Question 2

Environmental health experts and water engineers have crucial role to play in tackling the issue of covid-19? Discuss your opinion on this in 4 sentences

Answer

1. Water engineers can help by designing situatable treated water systems for washing and bathing
2. Public water system for washing hands and disinfecting.