

Study on TP changes causes and prevention countermeasures in Miyun Reservoir

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Abstract: The Miyun Reservoir is currently the only water source in Beijing. Its water environment quality is closely related to the safety of drinking water. Currently, the water quality is generally good, but TP concentration has increased gradually in recent years, which is the key factor for the cyanobacteria bloom. In order to guarantee the water quality in the Miyun reservoir and meet the requirements of water environment management and water ecological civilization construction, we first analyzed the main source of TP load in the Miyun Reservoir and its characteristics, and then analyzed the reason of TP variation, and finally, we put forward three countermeasures. In addition, we predicted the impact of South-to-North water on reservoir water level changes and water quality, it showed that the South-to-North water diversion project would be helpful for water quality in the Miyun reservoir. The results can provide scientific basis for supervision and management of water security in the Miyun Reservoir

Key words: TP changes causes; prevention countermeasures; water ecological civilization; the South-to-North water transfer project; Miyun reservoir