

综述

密云水库水质研究综述

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摘要:

密云水库的污染物主要来自水土流失、畜禽与水产养殖废弃物、居民点生活垃圾与污水、化肥流失、网箱养鱼的残饵与粪便、水库沉积物的释放等。总氮、总磷等无机污染物质主要来自潮河流域,化学需氧量、生化需氧量等有机污染物主要来自白河流域,污染负荷主要来自汛期。1980-2002年,密云水库的总氮浓度偏高,总磷浓度较低。总氮、化学需氧量、叶绿素具有随年代而增加的趋势。溶解氧和透明度比较高,细菌、大肠杆菌、微囊藻毒素水平较低。20世纪90年代以前,密云水库的水质属于中营养状况,90年代以后总氮水平、TSICOD等指标达到或接近富营养化标准。2002年首次暴发大面积蓝藻水华。

关键词: 水质;密云水库

Review of Water Quality of Miyun Reservoir

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Abstract:

The reservoir's pollution came from soil erosion, waste of animals such as livestock and fish, rubbish and waste water of villages and towns, loss of fertilizer, and nutrient release of the reservoir's deposit. The inorganic pollutants such as total nitrogen and phosphorus in Miyun Reservoir were mainly from Chaohe River basin while organic pollutants such as chemical oxygen demand (COD) and biochemical oxygen demand (BOD) mainly from Baihe River basin. Most of the pollution load came into Miyun Reservoir during the flood season. The concentration of total nitrogen in Miyun Reservoir was higher while that of total phosphorus was lower from 1980 to 2002. Total nitrogen, COD and chlorophyll had an increasing trend year by year. Dissolved oxygen (DO) and transparency (SD) were high, and bacterial, colon bacilli and microcystins were low. Water quality of Miyun Reservoir was in mesotrophic condition before 1990s, and reached mesoeutrophic condition after 1990. The first outbreak of blue green algae in Miyun Reservoir happened during the warm season of 2002.

Keywords: water quality Miyun Reservoir

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