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Analysis of Water Quality Using Physico-Chemical Parameters, Jamwadi Reservoir in Yavatmal District, MS, India

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ABSTRACT

Jamwadi Reservoir is a small local reservoir located in the village, Jamwadi, District Yavatmal, Maharashtra, India, is a construction above the water flow of Yavatmal apart from the surrounding areas. Physico-chemical character of the Jamwadi reservoir, pollution studies have been studied from February 2021 to March 2021. Apart from disinfectants in the reservoir, it is nutritious as well as sufficient for the growth of aquatic plants. The above study suggests that the Jamwadi reservoir tends to atrophy somewhat below the class of mesotrophic water bodies. Therefore, apart from the administration of this water body, management is also needed. At this time we will study about chloride, total hardness MIG hardness, CA hardness, alkalinity, temperature, pH parameters.

Keywords : quality, tropic status, physicochemical, chloride content, hardness.

I. INTRODUCTION

In the investigation of population expansion, the height of the water is mainly due to the lack of natural resources. Water is the most important natural resource, in addition to valuable national resources, human needs are also needed. For this purpose, proper scheduling, improvement and administration are required for its use. However, studies of environmental sciences and the environment are often seen as counter-developmental as well as contrary to normal development and human well-being, and are viewed with skepticism and are generally disturbing. - The tropical state of the body of water depends on the neighborhood and the landscape. It is essential for all kinds of life, food production, economic growth and global well-being. Due to the amazing expansion of engineering and agriculture, aquatic plants and organisms have spread more and more in recent times, and despite all these things, wherever they occur, they all face local unrest. Increasing industrial, urbanization and development work bring in the inevitable water disaster to counter population explosions. The health of the lakes and their biodiversity is linked to the physical condition. In freshwater enterprises, the importance of nutrients plays the most important role as their outline extends from esophagus to atrophication. Excessive macrophage plant life, which also monitors eutrophication of aquifers. Testing Water Excellence is the first march to drive and protect vehicles in the aquatic environment. It is also true that the purpose of any aquatic biobank network is to protect its habitat, which can adequately withstand the physicochemical deficiencies of water. Therefore, according to the present study, an attempt has been made to study the physicochemical parameters of the Jamwali reservoir in

the Yatammal district of the Indian state of Maharashtra, as well as to draw some conclusions on the structural and objective aspects of the reservoir. The meaning of its protection.

II. METHODS AND MATERIAL

Jam Wadi is a small man-made reservoir with a 1.0.07 hectare water table built on Jam Wadi . The dam is located about 10 km northwest of Jamwadi tehsil Zakhair and 20 km south of Yavatmal. This reservoir is for drinking water supply, irrigation, fishing etc. Is a multi-purpose reservoir for various works like. The three sample stations are showing the sample stations on the map of the Jamwadi reservoir. Point 01, Point 02 and Point 03 stations were selected for the analysis of physiochemical details of water in the entire reservoir. Sample processing as well as laboratory tests: All three water samples were taken between February and March 2021. At the beginning of the day, in the first week of each month, monthly samples of surface water were collected in all three samples. 9 a.m. to 9 p.m.). Iodine treats, two-stop SIM polyclinic bottles were used to collect water samples. The bottles were placed in an ice bucket and brought to the laboratory for analysis. Physical chemical properties of water including water temperature, depth, color, transparency, pH are measured by mercury thermometer, graduation string, visual, arc disc, digital pH meter, total alkalinity, total hardness, chloride, calcium and sample.

Table-1 Parameters of Jamwadi Reservoir water

PARAMETER	POINT 01	POINT 02	POINT 03
Colour	Light yellow	Light yellow	yellow
Odour	Light sweet	Light alcoholic	Light sweet
PH	5.89	5.32	5.45
Temprature	34	35	32
Total hardness	800	785	760
Ca hardness	165.2	200.4	160.32
Mg hardness	625.5	599.68	602.32
Alkalinity	90	85	83
Chloride content	71.0	63.9	78.1
Electrical conductivity	248.30 µS/cm	109.00 µS/cm	236.40 µS/cm
Transparency	90.40cm	118.00cm	68.59cm

III. RESULTS AND DISCUSSION

Table 1 shows the average deviation of the different physiochemical properties of the reservoir water and their annual indicator range of similarity in Table 1. Reservoirs: Reservoirs in Jam Kho Valley recorded maximum water levels during the post-monsoon period, but minimum water levels were recorded during the summer season in both the years of the study. In the rainy season the water is yellowish-gray and in winter it is green and in summer it is transparent. Water transparency mainly affects factors such as biological productivity, suspended particles and water color 4. Transparency in reservoirs in Jam Kho Valley ranged from 68.59-118.00 cm during monsoon season with low cost. After rains, sand, soil and clay settlements become more transparent and reach a maximum of 118.00 cm in the reservoir. Conductivity measures the capacity of a substance or the solution of electrical action. The electrical conductivity of this reservoir is found to fluctuate between 109.00µS / cm and 248.30µS / cm and it falls in the stored range of Indian water. According to these standards, reservoir water in the Jam Kho Valley falls into the category of mesotrophic water bodies. Soil, soil, organic matter, plankton and other micro-organisms cause turbulence in natural water. Reservoir water quality: Water temperature increased during summer months and decreased during cold months. The survey looked at

changes similar to climate change. Water levels play an important role in controlling water levels.

IV. CONCLUSION

In addition to "natural" extinction, conservatives are trying to save human diversity from the threat of humanity. Major obstacles to the conservation of biodiversity for sustainable life in the future include the lack of an adequate data base, insufficient funding for research, and confusion and controversy over the choice of areas for conservation. This has made the task more and more difficult. Based on its physical-chemical properties, it can be said that the Jam Valley Reservoir is a mesotropic aquatic body, slightly inclined towards the material. The transport conditions of the reservoir guarantee proper protection and management and the best use will be made of these reservoirs, macrophages. It can be obtained from mechanical sources by mechanical extraction or by grass carp. This is because the removal of nutrients in the form of biomass is only tested for eutrophication. Reservoirs, rivers and streams should be blocked and dams should be constructed. This will prevent depletion of water in the reservoir.

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