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## **COMPARATIVE STUDY OF PHYSICO CHEMICAL CHARACTERISTICS OF WATER QUALITY IN BHAMA RIVER & BORE WELL, PIMPARI (BK), PUNE**

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### **Abstract**

Water pollution is an acute problem in India which is causing health problems for the people staying in those areas. Taking this into account I tried to study the physico chemical properties of water of Bhama river & it's bore well which is most commonly used to fulfil their daily needs by the people staying in that area. The physico chemical parameters of Bhama river water namely pH , turbidity, total dissolved solids, alkalinity and hardness, phosphate content, chloride content, chemical Oxygen demand and sulphate content were measured every year thrice in the month of December for the three consecutive years i.e.2009, 2010 & 2011 by collecting water samples from the river & bore well on 1st ,16th & 31st December every year. The purpose was to assess the quality of water from the sources in pre winter and winter season because during this period the water quality varies due to atmospheric changes and there is lot of dampness in the air due to heavy moisture content .This leads to variation the physical parameters of water and also enhances the growth of microbes in the water beds. The values obtained for these parameters are pH: 7.51, hardness17.4 mg/lit, phosphate 0.98mg/lit, chloride content: 42.6ppm/lit, Chemical oxygen demand) 120mg /lit respectively. Coli forms microbial characteristics & mineral oils were not found in the well water. As lots of microbes are present in the water, they can be analysed for further analysis its quality.

Keyword: Bhama River, Post monsoon, hardness, turbidity, pH.