

# Water Quality Assessment of Baba Ghat of Beehar River Rewa (M.P.) India

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**Abstract** — All life on earth relies upon water. New water is a basic, limited, powerless, sustainable regular asset on the earth and assumes as significant part in our living climate without it life is unthinkable. In this paper we are dissected physio-substance investigation of Baba Ghat of Beehar waterway of Rewa city (M. P.) physical and substance boundaries like Temperature, pH, absolute solids, all out broke down solids, complete hardness, chlorides, calcium, magnesium, organic oxygen interest and compound oxygen request and so forth.

**Keywords:** Baba Ghat, Physico-Substance Boundaries of Water

## I. INTRODUCTION

water is fundamental for all financial turn of events and for keeping up with sound environments. Regular surface water bodies like waterways and streams are exposed to contamination involving natural and inorganic constituent. As contamination increments and advancement call for increment dallocations of groundwater and surface water for the homegrown farming and modern areas the strain on water assets increases prompting pressures clashes among client and extreme tension on the climate. Water is most irreplaceable necessity for every single living organic entity and any adjustments in water might prompt the issue of endurance for these organic entities. Great nature of water is fundamental for living creatures. The nature of water can be surveyed by concentrating on its actual synthetic and organic qualities as well as by microscopic fish filling in it. Due to huge populace and carelessness of individual the nature of water is being disintegrated step by step. The current review was thought about the physio-substance boundaries of water in Baba Ghat of Beehar stream in Rewa.

Unpredictable and body when release untreated or to some extent treated. Water contamination by gushing has turned into an issue of impressive public and logical worry in the radiance of proof of their outrageous harmfulness to human wellbeing and to organic biological systems. Streams have forever been the main asset of new water. India support over 17% of the total populace with just 4% of the world's new water assets. India is a place that is known for some waterways. The all out length of all our significant waterways along with their feeders is 27,359 km. A large number of our old civic establishments had prospered along the banks of a few stream and, surprisingly, presently most formative exercises are reliant upon them. Anthropogenic interferences of the land surface, adjustments of the stream framework and expanding paces of water utilization are adversely affecting the nature of new water sources all through the world. In global arrangements, the requirement for water quality mirrors the profound effect of monetary, mechanical and segment changes upon the water conditions. Since the cutting

edge rural, modern and compound upheavals, the blast of the total populace and spread of the urbanization were presented as the variables influencing water quality in both homegrown and worldwide arrangements. Spatial and worldly varieties in stream hydrochemistry firmly affect the convergence of poisons in water one of the main elements of water contamination is the microbial tainting; particularly with pathogenic microorganisms because of waste releases. This issue is additionally intensified by the rising occurrence of intestinal microbes in new water framework which are answerable for waterborne illnesses like cholera, shigellosis, salmonellosis, pneumonia and typhoid fever. These illnesses are one of the significant reasons for expanded bleakness and mortality on the planet. As per the World Wellbeing Association (2006), 33% of the total populace experiences illnesses got from polluted dangerous water supply and around 13 million individuals bite the dust consistently from waterborne contaminations; of these, 2 million are youngsters. Most of these passings happen in emerging nations. Perilous water with lacking sterilization and deficient cleanliness represents an expected 1.9% worldwide weight of sickness and 6.3 percent of all passings (WHO, 2006). Among these 1.7 million passings in a year universally is basically through irresistible loose bowels. The Beehar stream a significant surface water wellspring of Rewa town, is a feeder of the Tons stream. It starts from the Vindhyan slope range close to Amarpatan in the Satna region of Madhya Pradesh. It streams northerly and makes the conversion study with the Tons close to Chachal town in the Rewa area. The review region is situated between scope 24o 25': 25o 00' and longitude 81o 30'. The typical precipitation of the area is around 1000 mm though temperature changes between 4oC in winter to 42oC in summer season

## II. MATERIALS AND METHODS

The current review was completed at Baba Ghat of stream Beehar enormous extension in Rewa region (M.P.) India. For water assortment corrosive cleaned plastics holders were used. Boundaries like temperature were identified at testing destinations while outstanding boundaries were broke down following arriving at in lab. The technique recommended by IS:10500 - 2012.

## III. RESULTS AND DISCUSSION

Water like different parts (air and soil) is similarly significant for food of life and to keep up with environmental advancement of the bio-framework. In any case, steady expansions in the interest of water for multipurpose achieved by the two associated and equal line of powers for example industrialization and urbanization, which in one hand ordinarily mirrors the overall turn of events and progress however then again forces solid worry about the destiny of

new water territories. The necessity of water in all lives, from microorganisms to people, is expanded step by step yet it is a significant issue to give a protected drinking water since all water assets have reached to a place of emergency because of impromptu urbanization and industrialization. The information on physio-substance examination of Baba Ghat have been given in table.

#### A. Temperature:-

Temperature is quite possibly of the main element. The water temperature followed the adjustment of sun based radiation and surrounding air temperature. The temperature of surface water during testing is 27.5 oC. Temperature has been considered as a significant figure amphibian climate.

#### B. pH Values:-

pH is likewise a fundamental boundary of water quality which is represented by the carbon dioxide, bicarbonate harmony. The pH during testing is 7.42. High water upsides of pH during mid-year months might be because of usage of bicarbonates and carbonates cushion framework.

#### C. Total solids (TS):-

Total solids is 42.419 mg/l.

#### D. Total hardness:-

It has indicated the reasonable worth of all out hardness of water to be 200 mg/l of CaCO<sub>3</sub>. Complete hardness values saw of Beehar Waterway is 240.5 mg/l. Temporary hardness is because of carbonate and bicarbonate of Calcium (Ca) and Magnesium (Mg). Non Super durable hardness because of sulfates, nitrates and chlorides.

#### E. Chloride:-

The Chloride is available in all normal waters; generally at low fixations. It is profoundly solvent in water and all the more uninhibitedly beneficial constraint of chloride with water through soil and rock. inland saltiness is content is generally under 250 mg/l besides in situations where inland saltiness is pervasive in beach front regions. In water permissible limit is 250mg/l and adequate breaking point is 1000mg/l as recommended by IS:10500-2012, chlorides are significant in identifying the tainting of ground water by squander water. The worth of Chloride got 241.4 mg/l. The presence of Chloride in higher sums might be because of regular cycle, for example, entry of water through normal salt development in the earth or it could be and mark of contamination from homegrown use.

#### F. Biochemical oxygen demand(BOD):

The B.O.D. Worth of Water Test under present examination is 6.0 mg/l . Customary expansion of natural matter particle the surface water could have offered extreme bacterial development which thus brought about expanded Body level. Body demonstrates how much Oxygen expected for balancing out natural decomposable natural matter in squander under vigorous condition by miniature creature. The explanation of high happy of Body in late spring months could be because of the way that few microorganisms sped up their metabolic exercises with concentrated measure of natural matter released because of human exercises, and thus required more measure of oxygen.

#### G. Chemical oxygen demand(COD):

The COD upsides of concentrated on water test were tracked down in the fury 15 mg/l. Synthetic oxygen is proportion of Oxygen request drank for oxidation of Oxidizable natural matter present in water test serious areas of strength for by specialist, hence it is a mark of contamination strength of water. The wellsprings of COD in Baba Ghat might be because of contribution of homegrown channels and the utilization of cleanser and cleansers for washing and washing by everyday person, as proposed by Mathur et al. 2008.

#### H. Table of water quality parametrs at baba ghat

Sr. No.	Parameters	Values
1	temperature	27.5 oC
2	dessolved oxygen	7.66 mg/l
3	colour	unobjectionable
4	turbidity	84.31 NTU
5	pH	7.42
6	total solid	42.419 mg/l
7	total hardness	240.5 mg/l as CaCO <sub>3</sub>
8	alkalinity	198 mg/l as CaCO <sub>3</sub>
9	chloride	241.4 mg/l
10	BOB	6 mg/l
11	COD	15 mg/l

#### IV. CONCLUSION

This study gives an enlightening information and assists with figuring out water qualities and demonstrate that the water of Beehar Stream can act as a decent natural surroundings. The investigation of the quality boundaries of water from Baba Ghat of Beehar Stream shows that pH, alkalinity, chloride particle, all out hardness, Body and COD and so on are well inside the reasonable limit. This water can be use as drinking water supply by treatment because of presence of microorganism in water as a result of outfall of sewage of Rewa town in direct in waterway. It can likewise be use in modern purposes, yet in close Beehar waterway no enormous modern region present. Be that as it may, in future it great wellspring of water for enterprises for various exercises in light of the fact that Beehar stream is perennial stream, stream of water is adequate during summer season. Beehar stream water is utilized to water system purposes in close by regions and drinking water supply in Rewa district.

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