

Pali Industrial Units Discharge Untreated Effluent Into River

Dr. Hanuman Prasad

Research Supervisor
Faculty Of Geography
Tantiya University
Sri Ganganagar

Samridhi Dadhich

Research Scholar Faculty Of Geography,
Tantiya University Sri Ganganagar

Abstract

In the present study on May 11 several people found untreated effluent from the textile units of Pali in Rajasthan being discharge into Bandi River. The physiochemical analysis was done for one year and the present reveals that, the pH of river water is more than the standard levels and the other parameters of the river water was found to be higher in concentration on the basis of these observation it can concluded that the industrial effluents was adversely affecting on the river water quality, which affects on human being and aquatic environment.

Introduction

Water pollution is the contamination of water bodies, usually as a result of human activities, water bodies include for example lakes, rivers, ocean and ground water. Water pollution results when contaminants are introduced into the natural environment for example releasing in adequately treated waste water into natural water bodies can lead to degradation of aquatic ecosystem, this can lead to public health problem for people living downstream. They may use the same polluted river water for drinking or bathing for irrigation water pollution is the leading world wide cause off death and disease. Industry it produces pollutants that are extremely harmful to people and the environment. Many industrial facilities use fresh water to carry away waste from the plants into river, lake and ocean.

In the present study the textile units of Pali in Rajasthan being discharge into the Bandi River. Four common effluent treatment plants maintained by the pali water pollution control research foundation an industry initiative have been built to treat the waste of more than 800 units but their attempt to save on operation costs by passing the effluent treatment process resulted in more than two hundred people encircling the foundation office, for bidding official to leave for eight hours. The district collector brought the situation under control by promising action. The collector Neeraj Pawan shut

the units down but they started functioning on the sly; this is a cat and mouse game no concrete action being evidence that effluents are not being treated properly; says

Mahaveer Singh Sukerlai; convener of Sri Kisan paryauaram, Sangarsh Samite which is spear heading the cause of the farmer against the pollution of the Bandi and ground water in and around the town of pali by dyeing and printing industries A recent order passed in the Rajasthan high Court may ham implication for pali on february 17, the court ordered closing several hand block printing and textile units in Balotra, Barmer district. They have been even banned from discharging treated effluents into the luni of which Bandi is a tributary this was in pursuance of a decades old order of the state pollution control board which cited that the treated effluent was detrimental to ground water quality. In essence that they have demanded that units maintain zero discharge standard's by reusing waste water or shut down. The Industry moved on application and sought a modification of the order. They also filled an affidavit promising to clean up their act, seeking interim relief that would allow them to foundation until they carry out the desired pollution abatement works. But the court has refused to entertain their pleas for two months, subsequent to the order the units remained closed but recently started operating says Dig Vijay Singh Jasoli, advocate and petitioner in the court", In the night they clandestinely discharge their effluent location of which is very

difficult to pain point "he adds. The pollution monitoring agency. He adds should be more Vigilant.

Site Descrittion

Pali: Pali is situated on the bank of river Bandi Pali is the district of Rajasthan state and administrative headquarters. The City lies between 25 77' N latitude to 77 33' E longitude. Bandi River is a major tributary of luni River and floor in almost east to west direction. Pali is the Industrial dying and printing hub of Rajasthan state. At Present aboard 800 textile indexes braes are working

Material And Methods

Monthly water sample work collected from two different sampling side(Pali and Balotra) in the period of one year (July 2013 to June) water temperature analyzed by simple thermometer, Ph, transparency by using sacchidisc, total hardness as calcium and magnesium , dissolved oxygen, free co2,carbonates,biarbonates,chlorides,salinity,phosphates,nitrates,fluoridby using ELICO NEPHLOMETER CL 52 D and SPECTROPHOTOMETER 106 SYSTRONIC by using photometric method, bod, analyzed by Titrometric methods with the help of standard methods for water analysis (APHA) by clesceri et al. (1998)

Table-physic-chemical parameter of Bandi River water.Pali

| Month | July | Aug. | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | may | June |
|----------|------|-------|------|------|------|------|------|------|------|------|------|------|
| Temp. | 32.7 | 35.05 | 35.3 | 30.9 | 28.9 | 25.9 | 27.2 | 28.3 | 36 | 39.1 | 42.1 | 40.9 |
| pH | 9.8 | 10.8 | 10 | 9.2 | 10.3 | 10.4 | 8.7 | 9 | 10.2 | 9.5 | 10.3 | 10.4 |
| Trans. | 9.35 | 12 | 14.2 | 15.8 | 17.7 | 17.8 | 15.9 | 15.2 | 15.2 | 14.4 | 20.1 | 18.7 |
| DO | 0.1 | 0.21 | 0.24 | AB | AB | 0.1 | AB | AB | AB | AB | 0.13 | 0.42 |
| CO2 | 45 | 94 | 165 | 87 | 78.5 | 57 | AB | 63 | 323 | 101 | AB | 41.5 |
| TH | 702 | 789 | 1009 | 915 | 773 | 932 | 1033 | 1062 | 1.67 | 1001 | 836 | 765 |
| CO3 | 10 | 35 | 35 | 37.5 | 10 | 10 | 30 | 15 | 40 | 76 | 130 | 183 |
| HCO3 | 248 | 293 | 253 | 310 | 603 | 1088 | 1026 | 1268 | 1245 | 1338 | 1401 | 1536 |
| CL | 1086 | 1027 | 1089 | 1120 | 1254 | 1788 | 1929 | 2020 | 1988 | 1812 | 2145 | 1928 |
| Salinity | 1961 | 1854 | 1967 | 2050 | 2265 | 3228 | 3482 | 3647 | 3589 | 3272 | 3872 | 3481 |
| Nitrates | 91.4 | 82.4 | 115 | 129 | 156 | 200 | 144 | 112 | 128 | 157 | 157 | 105 |
| Phos. | 5.7 | 8.2 | 6.4 | 5.4 | 6.3 | 4.6 | 1.5 | 2.7 | 4.04 | 6.2 | 8.64 | 5.8 |
| F | 3.6 | 3.3 | 2.7 | 2.9 | 1.8 | 2.4 | 3.4 | 2.6 | 2.7 | 3.3 | 2.1 | 3.4 |
| BOD | 140 | 194 | 250 | 165 | 215 | 295 | 258 | 313 | 411 | 281 | 373 | 262 |

Results

Temperature is most important parameters of aquatic life during the study periods mean temperature range from 25.9C to 42.1 C .highest was observed in may while lowest was in December .textile industries use different dyes for coloration purpose due to that pH value was always observed as alkaline above 9 while in summer I was up to 10.4. **Islam et al., (2011)** studied the affect of textile industries effluents and their courses mainly, hazards caused by dye effluents, which contain both chemical and organic pollutants **Munnaf et al., (2014).**

The observed values of all physic-chemical parameters are discuses in table which help you to analyzeeach and everything easily

Conclusion

Textile industrial effluent is the most effected factor for river water pollution in Pali. It can be observed that the PH of river water is more than the permissible limit while most of the parameter as well a BOD, Salinity, alkalinity as HCO₃ and Co₃ total hardness (as ca andmg) are found much higher. This study shows that textile effluents are highly, toxic in nature and effect on these river water parameters.

Bibliography

- Gautam R.N. Bharadwaj Y. Saini (2011)**
study of fluoride content in ground water of Nawa tehsil in Nagaur, Rajasthan journal of Environment Biology, vol. 32 (1) 85-89
- Meena L.R. and P. Nama (2015)**
Study on physico-chemical parameters of sillier lake alwar district India, Journal of Global resources, Vol.1 (1)] 71-75
- Tandale M.R. D.S Dabhade (2014)**
study on physico - chemical parameter of lonar crater India, Bioscience, Biotechnology research communication, Vol. 7(1) 50-56
- Varma L. and J. Sharma (2011)**
Analysis of physical and chemical parameters of textile waste water, journal of international academy of physical science vol. 15(2)269-276
- APHA (1998)**
Guidelines for drinking water quality electronic resources incorporating first addendum. vol 1 recommendation-3rd
- Rathore J. (2012) :**
Studies on pollution load induced by dyeing and printing units in river Bandi at Pali, Rajasthan, India, International journal of Environment science vol. 3(1) 735-742