

# Water Quality Evaluation of River Yamuna along Ponta-sahib Industrial Hub of Himachal Pradesh, India

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**Abstract**—A study was made for evaluating the water quality of a 20 km stretch of Yamuna river by measuring various physicochemical water quality parameters. River Yamuna, during its flow through Sirmour district in Himachal Pradesh receives domestic and industrial effluents from six villages and Ponta-sahib industrial hub situated on the bank of river. Depending upon the location of point sources of effluent discharges, seven sampling stations were selected for collecting the water samples. The parameters were analyzed for pre-monsoon and post-monsoon seasons during year 2014. From the results it was found that there was a significant increase, especially in the pre-monsoon season, in all the physico-chemical parameters from the downstream of Ponta-sahib town. However, all the parameters were within the prescribed limits of drinking water standards. As per the CPCB stream classification, based on the results of BOD, COD the river stretch up to a distance of 3 km from the upstream boundary (upstream of town) can be designated as class of stream 'C', whereas the stretch between 3 to 20 km can be categorized as class of stream 'D'. In terms of turbidity, the river satisfied the standards of class of stream 'C' (> 4 mg/l) at all the places during both the seasons.

**Keywords:** Yamuna river, Ponta-sahib, industrial effluents, water quality