

**STREAM WATER BLACKENING BY EFFLUENT DISCHARGE OF A  
YARN DYEING INDUSTRY**

A PROJECT REPORT PRESENTED

BY

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to the

**POSTGRADUATE INSTITUTE OF SCIENCE**

*in partial fulfillment of the requirement*

*for the award of the degree of*

**MASTER OF SCIENCE**

of the

**UNIVERSITY OF PERADENIYA**

**SRI LANKA**

**January 2002**

**ABSTRACT****STREAM WATER BLACKENING BY EFFLUENT DISCHARGE OF A YARN  
DYEING INDUSTRY**

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This project report describes the causes for the blackening of a water stream due to effluent discharge of a yarn dyeing industry. Although the discharged treated effluent is initially colourless when it enters the water stream, significant blackening is observed after discharge. Introductory chapter gives a general description of the industrial water pollution and about the textile sector and related processes. Experimental part consists of qualitative and quantitative chemical analysis of black substance, effluent and soil. Formation of iron sulphide in the stream is the cause for blackening. Generation of dissolved sulphide by the biological reduction of sulphate caused iron sulphide formation in the stream. High biological oxygen demand (BOD), excessive sulphate content of effluent and high iron content in soil are causative factors. These factors were further confirmed by simulation. Reduction of BOD and sulphate content in discharging effluent are suggestions for the prevention.