

## **Physical Aspects of Estuarine Pollution – A Case Study in Amba River Estuary**

**P.K. Dinesh Kumar<sup>1</sup>, V. Josanto<sup>1</sup>, R.V. Sarma and M.D. Zingde**

*National Institute of Oceanography, Regional Centre, Bombay 400 061, Maharashtra, India*  
*<sup>1</sup>N.I.O. Regional Centre, P.B. No. 1913, Cochin 682 018, Kerala, India*

**KEYWORDS** Estuary. Effluent. Discharge. Dilution

**ABSTRACT** Tide dominated Amba river estuary was studied to evaluate its physical characteristics with a point on application to locate a suitable release point of industrial effluents. It is important to site the outfall in a manner ensuring that the water in the estuary is protected from contamination and will meet the required quality standards which necessitated the study of tides, currents, probable wastewater flow paths, dispersion potential, flushing time and also the propagation characteristics of the wastewater when released. Results are presented for crucial information on these aspects. Accordingly it is suggested to release the treated wastewater in the lower estuary at a convenient site downstream of Dharamtar form where a significant portion of the effluents is flushed out under all tidal conditions.