

NEW IDEAS IN THE MANAGEMENT OF WATER RESOURCES POLLUTION

Jahangir Abedi Koupai

Prof., Dept. of Water Eng., College of Agriculture, Isfahan University of Technology, Isfahan,
Iran, 84156-83111

E-mail address: *koupai@cc.iut.ac.ir*

Abstract

Water affects almost all aspects of the lifestyle, in particular, health, food production and security, sanitation, energy, industry and environmental sustainability. Nowadays, mankind is faced with several water resources challenges, including water scarcity and pollution. Expanding agriculture and industrial activities not only increasingly use water, but also contribute to pollution of valuable sources of surface and ground water. Every day, 2 million tons of sewage and industrial and agricultural waste are discharged into the world's water. The UN estimates that the amount of wastewater produced annually is about 1,500 km³, six times more water than exists in all the rivers of the world. This paper tries to address affecting factors on water resources pollution and introduce some solutions in reducing water pollution, including best management practice (BMP), use of slow release fertilizers (SRF) in farmlands and developing inexpensive adsorbents utilizing abundant natural materials (agricultural and industrial wastes) for treatment of polluted water.

Keywords: BMP, SRF, Unconventional water, Industrial and Agricultural wastes, Filtration method.