

*J.KAU: Mel, Env., Arid Land Agric. Sci., vol. 10, pp. 103-114.(1419 A.H. /1999A.D)*

**Sustainable Development of Domestic Water for Jeddah City Using  
Object Oriented Programming.**

**Ahmed Samy El-Zaher.**

**Abstract :** The paper discusses the present and future (1405-1440) water demand and water resources for the domestic use in Jeddah city. It presents an integrated model for setting guidelines for the water policy in the next century. The paper also illustrates the powerful tool of Object Oriented Programming (OOP) as a fast modeling technique. Projection of both water demand driven by population as well as water resources are illustrated. Three scenarios are presented representing optimistic, most likely and pessimistic cases. Under each scenario, the level of water shortage problem is addressed and it was shown that without water conservation Jeddah city will face significant water shortage. A development plan is suggested to satisfy the domestic water demand up to year 1440.