

Numerical analyses of groundwater seaward flux and estimation of delta seaward flux in Yellow River farm region

Guanqun Liu

Ocean University of China, Qingdao, China

Physiogeographic, geological and hydrogeologic conditions were Systematically investigated and analyzed in Yellow River farm region. Hydrogeologic tests and long-term observations were carried out. Hydrogeologic mathematical model was established at typical district of Yellow delta in Yellow River farm region. The changing trends of groundwater seaward flux and the influence degree of different factors were analyzed quantitatively. The study results show that the local meteorologic factors and water levels of Yellow River ,Small Island River and sea have different influence to the groundwater seaward flux, and the water level fluctuation of Yellow River and meteorologic conditions are the major factors influencing groundwater seaward flux in Yellow River Delta, and groundwater seaward flux is much less than surface runoff seaward flux.