

ABSTRACT

Karachi being the main city of Pakistan has likewise been influenced in all respects seriously. Karachi has a dilute land use which also incorporate large industries which has been exporting the product in Europe. Due to the shortage of water, the yield of products has also been badly affected. There are 2 main sources of Water supply of Karachi Indus River: which supply 530MGD water to the mega city. And due to the de Jure census of Karachi, the quota of withdrawal from this is less for Karachi. Hub Dam: the total height of Hub dam is 339 feet which plunges to 61 feet since 2016, due to record low rainfall. The primary purpose is to check the adequate pressure and flaws in the Water Board pipelines of the North Karachi Sector 10 using Water GEMS v8i. In order to stimulate the distribution system of North Karachi Sector 10, we run a model on Water GEMS v8i, the result at every junction, the value of pressure coming out to be negative, which shows that no water is supplied in that area. In order to check our current value, we took Sector 9 and do the calibration process. The calibration result, for the model at Sector 9 spectacle that at every junction the value of pressure coming out to be positive, which shows the water is being supplied to that area properly, which matches our current situation. Due to the shortage of water in Sector 10 we recommended some recommendations, Water gem model estimated the pressure at which current system is running, by increasing the pressure from 2000psi to 4000psi, we can overcome this shortage, We can also introduce the water meter on the household basis which increase the vulnerability of the water for the people of the entire area coming under the Ajmer Pumping station. There is Sector 9, Sector 10, Bilal Town, Sector 8, 11A, 11B, Sector 8, 7D/2, 7D/3 but the most critical among them is Sector 10. By proper time management to supply water to each and every area we can minimize the scarcity of water in Sector 10.