Water, bestowed upon us as the greatest blessing from Allah, is vital for all life on Earth, as highlighted in the Quranic verse specifically, Surah Al-Anbiya Ayah #30...{ ??????Strategies such as parallel pump operation and balancing storage mitigate these fluctuations, particularly crucial for small community water supplies where reliable electricity or diesel may be scarce. The Yarmouk Water Corporation serves as the primary provider of water to residents in Irbid, Jordan, Quality of groundwater in the Yarmouk basin, Jordan has been assessed through the study of hydrogeochemical characteristics and the water chemistry as it is considered the main source for drinking and agriculture activities in the region(Al-Taani et al., 2018). Water distribution systems form an integral component of the broader water supply network, facilitating the conveyance of potable water from treatment facilities or wells to end-users. Supported by organizations like UNICEF Jordan, its initiatives underscore the critical importance of water sanitation and hygiene. These systems grapple with fluctuating water demands throughout the day, peaking during periods of personal hygiene, cleaning, food preparation, and laundry. Recognizing its importance, ???????????????.humans have endeavored to devise means of transporting and storing water efficiently